Master Degree in Management, Major in Innovation and Entrepreneurship

Tourism Management Class

The effects of social sustainability on guest choice, customer satisfaction and willingness to pay a premium in the hospitality industry

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A.A 2017/2018

INTRODUCTION

With the increasing concern upon environment deterioration, economic crisis and human being inequalities, the idea of "sustainability" is more than a recent buzzword. The use of the word is certainly becoming more frequent, but its concept is still hardly known.

The term sustainability is commonly associated to the word "*development"* and implies a strategic growth that needs to be addressed at all levels.

Sustainable development is a hot topic lately, due not to commercial or ideological reasons, but it's gaining recognition because it helps us reversing the harmful trends that are increasingly impacting our lives.

Hence, sustainable development is no longer an optional choice, but it's something we must address to preserve our quality of life, nowadays triggered by global warming, high pollution levels, humankind inequalities, frequent economic crisis, overconsumption of natural resources and raw materials, loss of cultural identities, and so on.

Awareness about the topic is quickly growing, and furthermore, national and international institutions are consistently addressing the issue.

This work aims to deepen the concept of sustainable development, with a focus on social sustainability, and applies it to tourism and hospitality industries.

Tourism accounts for 10.4% of world GDP and international arrivals are expected to become 1.3 Billion by 2030, hence the importance of sustainable development is even more true for this fast-growing sector.

Sustainability has three macro-dimensions: economic, environmental and social, each addressing specific topics.

According to literature, many researches and studies have been conducted to relate tourists' behavior to environmental and economic sustainability, while little has done about its social dimension.

The objective of this study is to analyze whether there is a connection between social sustainability and tourists' choice, expected satisfaction and willingness to pay a premium for an accommodation. The question I will provide empirical answer to is the following:

How are the expected satisfaction, willingness to pay and choice of a hotel influenced by socio-cultural sustainability variables?

The first chapter is theoretical, and it addresses tourists' decision-making process; it will be explained in detail the approaches and processes behind a purchase decision, first for generic customers, then for specific customers (tourists), and finally we will analyze the main factors affecting a purchase decision within the hospitality industry. We will explore the main models of consumption, collect the most important theories about the topic, and last, we will observe the factors driving the buying behaviour and the determinants of tourist and hospitality demand.

In chapter two instead, we will deepdive the topic of sustainability in its three dimensions: economic, social and environmental. We will get through the biggest institutional agreements and milestones. Moreover, positive and negative effects of over-tourism are explained for the three dimensions, as well as the indicators able to measure the impact of sustainability on multiple daily situations. Finally, I will specifically target hospitality industry, providing insights regarding sustainable actions to be undertaken by hotels, in terms of environmental, economic and social initiatives.

The last theoretical chapter is a synthesis of chapter one and two; it collects previous empirical studies and researches about how sustainability and hospitality industry interact. The aim of the third chapter is to provide evidence about an already existing relationship between the two worlds, and it is divided in two sections: the first explores the relationship between sustainability and tourism industry, the second one addresses the relationship between sustainability and hospitality industry.

Results are shown in the final chapter, where I will introduce the survey that has been submitted, I will explain and list the variables involved in the research, I will report the methodology and statistical models applied (such as Wilcoxon Test or logistic regression model) and finally I will test and discuss the results obtained in order to see whether are consistent or not with the initial hypothesis.

Finally, I will conclude the work with a brief sum up, by retracing from beginning to end the main points and results.

CHAPTER 1: TOURIST: TYPICAL OR ATYPICAL BEHAVIOR?

Consumer behavior is relatively a new field of study, that grew consistently over the second half of last century. Selling perspective became less attractive, consequently the focus shifted from a product-oriented to a customer-oriented approach.

Centricity of customers, along with increasing consumerism and legislation, resulted in an independent discipline, that is even more complex and challenging due to heterogeneity of buyers.

The aim of this chapter is to deepen the behavior of tourists before, during and after making a purchase decision, which is heavily influenced by internal and external stimuli.

The analysis is built on the assumption that tourists, in front of a purchase decision, would behave as a generic customer.

Consumers' behavior could be defined as the process and activities people engage in when searching for, selecting, purchasing, using, evaluating, and disposing of products and services so as to satisfy their needs and desires (George E. Belch, Michael A. Belch, 1998).

The aforementioned definition testifies how wide and complex the matter is.

Consumer's behavior involves the process that a buyer goes through when making a purchase, from the initial recognition of a need, to a desirable post-purchase satisfaction.

Decision-making process refers to the behavior patterns of consumers, that precede, determine and follow on the decision process for the acquisition of need satisfying products, ideas or services (Du Plessis, 1991). Moreover, it blends elements from different fields of study such as sociology, economics, marketing, psychology and anthropology.

Researches and studies proliferated with the intent of giving solid explanation of the process; furthermore, many models emerged in order to outline the different theories behind the consumer's behavior.

An approach built on models has many advantages, the most effective are:

- Models are visually effective and make immediate the understanding of cause-effect relations.

- Models outline consumers behavior in choosing between multiple products; they show all the steps a consumer follows when making a purchase.

- Last, models simplify reality (Caine and Robson, 1993), which allow us to easily notice the differences in decision-making processes, but they also reduce complexity of phenomena.

The analysis will therefore start from the review of the most decisive theories and models currently adopted about consumers, and tourists, decision-making process.
Many scholars believe that the study of buyers' behavior is one of the most decisive in business education, it provides the keys to identify and meet someone else's need.

1.1 Different buying behaviors

Nowadays, before making a purchase, consumers face a rigorous process of choosing the best possible product among the many alternatives present in the market. Buyers are more difficult to fool, due to the huge amount of information available via media.
Henry Assael tried to delineate four behavioral traits through his matrix, based on two main variables:

- The involvement of consumers when making a purchase, it can be either high or low.

- Differences between brands, which can be significant, hence affecting the final decision, or can be imperceptible, without impacting the purchase.

These variables determine the following types of behaviors:

	High Involvement	***Low Involvement***
Significant difference between brands	Complex buying behavior	Variety seeking buying behavior
Few differences between brands	Dissonance reducing buying behavior	Habitual buying behavior

Figure 1: Henry Assael matrix of behavioral traits

- *Routinized or habitual buying behavior*, which is the simplest one, occurs when the consumer is involved in low-cost and commonly used goods. Both involvement and differences between brands are low; buyer employs little time to make the purchase, without the need for additional information; furthermore, habitual consumers are very sensitive to price, hence price point becomes the key driver of purchases.

- *Variety seeking buying behavior*; in this case consumer has low involvement with the product, meaning that the final purchase decision doesn't arise from previous experience with the same product, but there are significant differences between brands providing the same kind of good. Seeking for variety becomes the pivotal factor; an example is the purchase of chocolates, where buyers can try multiple flavors, even if satisfied, only for experimenting new tastes.

- *Dissonance reducing buying behavior* represents the third category, where consumers are aware and familiar with the brands available and with the features of the product, however, they don't have a clear set of preference. The buyer would like to gather additional information about the multiple brands before getting to the preferred one. As an example, the housewife when purchasing olive oil, she knows very well the product class, and she may also be familiar with the leading brands on the market, but in order to end up with a brand choice, she seeks for lots of feedbacks regarding the attributes of each.

- *Complex buying behavior* is the most difficult decision, it is characterized by a high involvement and significant brands difference. The consumer is unfamiliar with both the product class and the criteria for buying, furthermore, he will need extensive information. The replacement of a car falls under this type of complex decisions; you may have heard about many brands without having clear the brands' value proposition and concept, moreover, you probably won't have a full knowledge about attributes and feature to consider while purchasing the car.

1.2 Factors affecting purchase behaviors

The reason why a customer purchases a specific product instead of a similar one, is something impossible to know with certainty, but it's locked into consumer's mind. Scholars tried to decipher instead the factors affecting the decision-making process.
According to theories, we can highlight four macro-categories of factors: cultural, social, personal and psychological.

1.2.1. Cultural factors

Cultural factors strongly affect buying behaviors, this set of factors involves culture, sub-culture and social class:

- **Culture** is the share of values, ideologies and beliefs shaped by written and unwritten norms, which define what a person can and cannot do in order to fit into a specific group. The culture of an individual shapes his behavior and drives the decision he has to make; its formation starts at a young age, with parents' teachings and the environment you grow in.

It is the way of life of individuals, communities and groups; furthermore, it has a significant impact on purchase decision.

- Many **subcultures** can be embraced within a single culture, depending on religion, geographic region, race and nationality. Common characteristics can become a subculture when they define a specific pattern that sufficiently distinguish it from others. For example, products can be designed to satisfy the needs of specific geographical areas or religion.

- **Social class** is the third set of factors, it is not only determined by the level of income, but other variables can be considered such as level of education, wealth or occupation. Commonly this concept is associated with prestige and status of a group of people.
  As well as for cultural and subcultural factors, business strategies should segment and target customers also based on social classes.

1.2.2. Social factors

Human beings live in complex environment made of interactions between people that has different buying behaviors, beliefs and preferences.
Since we are social animals, seeking for socially acceptable behaviors, we listen to people we esteem; within this field, three factors are highlighted: family, roles and status, reference groups:

- There are two main **family** structures that affect an individual's behaviors. Family of orientation is the one that composes the set of all values and beliefs that will drive the consumer's buying behavior; family of procreation that represents the most important buying and consuming organization. An example is grocery shopping, a mother would purchase not only based on her personal tastes, but she will possibly consider the preferences of all family members.

- The purchase tendency relies also on the **role and status** an individual cover within a given society. Role is the set of activities that a subject play toward people close to him;

status instead, defines the level and characteristics of the esteem attributed to a specific role. The choice of a product is often affected by the desire to communicate to others a precise image of role and status.

- The third social factor having an impact on a buyer decision making process are **reference groups**, and these are of two types: primary reference group is the one with which an individual interacts on regular basis, while a secondary reference group is characterized by occasional interaction. Reference groups play a critical role in our purchase behavior; people usually suffer, at different levels, pressure to conform to this groups.
  Within reference groups there are opinion leaders, which due to their ability, charisma and role, are able to influence others. This groups affect buying decision by:

  - Providing information
  - Providing rewards for specific purchasing behaviors
  - Enhancing consumer's self-image

1.2.3. Personal factors

In addition to cultural and social factors, there are personal factors affecting buying behaviors; these are age and lifecycle, occupancy, economic situation, lifestyle and personality.

- Both **age and lifecycle** are crucial to consumer behavior; lifecycle is an evolving series of stages in which tendencies and attitudes toward a purchase decision change; it occurs because of developing maturity, personality, role and status, income, experience and so on.
  It follows that lifecycle must be taken under strong consideration when analyzing buyers' behavior; needs are very different depending on the age, children face very basic needs, while growing, these become more complex, finally in old age, needs tend to be basic again.

Individual lifecycle goes hand in hand with family lifecycle, which also shape purchasing behaviors; this consists of several stages such as young single, already married couple, long-time married couple.
Age and lifecycle determine different attitudes; graduate students will be more prone to buy beer, sport tickets or casual clothes, while an old woman would probably opt for books or theatre seasonal pass.

- **Occupation** and job of an individual determine differences in purchasing power; a CEO of a company is more likely to buy and wear elegant clothes, while teenagers would probably need more casual and comfortable outfits.

- The **economic situation** of a customer defines his level of expenses, the higher the income of a person, the higher he will be able to spend.
  Students would be more reluctant to go to Maldives on summer vacation, they would probably choose for closer destinations and cheaper accommodation; while a rich adult wouldn't have any budget restraint in terms of both destination and accommodation.

- Another significant factor is **lifestyle**; it is an individual's mode of living, that is shaped by his/her interests, activities, hobbies or opinions. Lifestyle refers to the way one person stays in the society; thus, it is influenced by surroundings. Lifestyle is something to do with attitudes and style.
  Some people really care about the image and the brands they wear, while some others are not very brand conscious. Furthermore, some people conduct a healthy and sporty lifestyle, while some others care less, being lazier.

- Last, **personality**, that identifies the type of individual you are, which is shown by the way you behave, think and feel. Personality affects all decisions of a person, included the purchase decisions.
  It has various features such as aggressiveness, self-confidence, boldness, autonomy or sociability; finally, personality can be useful to understand buying behavior, it might explain the reason of a product choice instead of another.

1.2.4. Psychological factors

Finally, the set of psychological factors talks about the psychology of an individual that drive his action in order to seek satisfaction. There are four major determinants, these are motivation, perception, learning, attitude and beliefs:

- The level of **motivation** drives the buying behavior, and motivation arises from needs. The more needs are basic, the higher will be the effort to fulfill those.
  Abraham Maslow back in 1943 proposed the theory of human motivation, that aims to classify and prioritize human needs.
  It is a five-tier model, depicted has a hierarchical pyramid, where needs are ranked from the most basic to the most complex:
  - Physiological needs include all the things that are vital to our survival, such as water and food.
  - Safety needs include physical, environmental and emotional protection and safety, such as job security or peaceful living area.
  - Belongingness and love needs, which are social needs, include all the feelings of acceptance, trust, friendship, intimacy, love.
  - Esteem needs can be of two types, internal and external; the first one refers to self-confidence, achievement, freedom, while external esteem needs include status, power and so on.
  - Self-actualization instead represents the desire to become who you are capable to become, to express your potential; it includes social – services, creativity, the pursue of new experiences and the wish of acknowledgement.

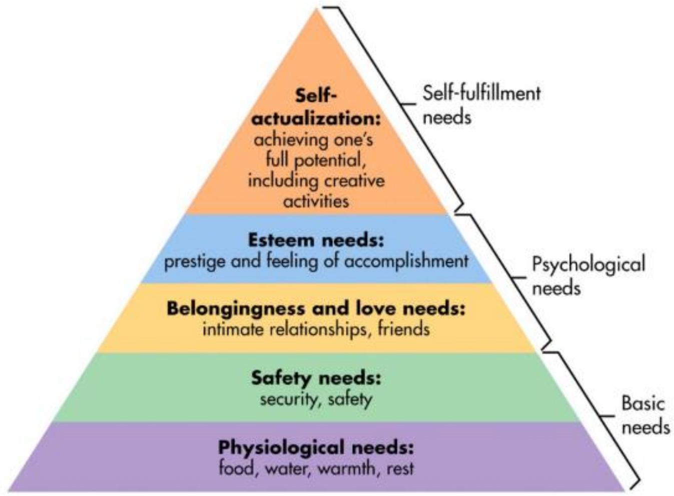

Figure 2: Maslow Pyramid, Theory of human motivation

The pyramid could be split in two parts, the first four tiers are often referred as deficiency needs (D-needs), while the top level is known as being needs (B-needs). D-needs and B-needs have an opposite logic behind, the first ones increase motivation when needs are unmet, on the opposite, B-needs increase motivation once needs are accomplished. Maslow stated that individuals must "more or less" satisfy lower-level needs before progressing to higher ones, for instance, a person wants first to satisfy basic needs and then move up to psychological needs.

- The consumer **perception** of a good or service will also affect his/her purchase decision; a given definition of perception is the process through which the individual selects, organize and interpret the information to draw a meaningful conclusion.
  Nike is perceived as the premium brand for sport shoes, even if qualitatively there many other good brands.
  The perceptual process goes through selective attention, selective distortion and selective retention.
  - Selective attention in psychology, is the ability to notice and pay attention to selected environmental stimuli and inputs and not others.
  - Selective distortion occurs when stimuli are not interpreted in the desired way by consumers; it defines the general tendency to re-elaborate information according to individuals' own point of view.

- Last, selective retention is the propensity to remember in the long term, any information that supports personal beliefs, values and behaviors, and to forget other inputs.

- **Learning** determines a change in consumer's behavior and purchasing process; it depends on skills, intention and knowledge.
  Skills are developed through practice, while intention and knowledge arise from past experiences; depending on stimuli, drivers, positive/negative cues and reinforcements, an individual will have a response. Each response and purchase want to satisfy initial needs. An individual gets to know a specific product only after its use; behaviors with satisfying results tend to be repeated, while unsatisfying ones tend to be avoided. In business terms, if a consumer had a positive experience with a product and you are currently satisfied, he will be more likely to purchase it again.

- The last psychological factors able to affect the behavior of an individual are **attitudes and beliefs**.
  Beliefs include all the opinions that a person holds about a specific product, these build up the image that a consumer has toward the product, but opinions arising from past experiences also constitute the root of brand reputation, hence determining a purchase behavior.
  If shared opinions don't recommend one product, marketers should build a campaign to correct those.
  Attitude is the stable evaluation of an individual regarding affections and ideas; it represents a person's point of view and predisposition toward products, advertising, brand, firms, ideas and so on.

1.3 Traditional decision-making process

The classical (or traditional) purchasing process is made up of five stages, it is derived from the grand models. It is a simplified model, that focuses on the sequential process instead of the interrelation of elements.

Simplicity is what makes the five stages understandable and adaptable to different contexts; furthermore, the model is commonly used to describe consumer buying decisions.

Figure 3: The traditional decision-making process, five stages model

Scholars and researches show that the five common stages a consumer goes through are:

- **Problem recognition**, it is the first step and occurs when the consumer start feeling the need of something. The needs can be of multiple types and can also have different weights, recognizing them is at the base of a purchase decision. Needs can be triggered by internal and external stimuli.

- **Information search**; at this point the consumer start gathering information about possible solution able to satisfy the initial need; he can get information via internet, but also from past experiences with the same product, or from people's recommendations and suggestions.

- **Evaluation of alternatives** occur when the buyer weight all the possibilities that came out at the previous stage. The consumer will start asking questions, wondering if he really wants that product or if he is not fully convinced. Sometimes the buyer moves from this stage to the second one multiple times before evaluation properly all the alternatives.

- After information and evaluation, it takes place the **purchase**. Here the consumer makes the decision, and he will purchase the good that better suites his desire.

- Finally, there is the **post-purchase behavior**, depending on the buyer's satisfaction. If the good/service meets or exceeds the expectation, then the user will be more prone to give positive feedbacks and buy the product again; otherwise, if expectations are unmet, then negative word of mouth is the inevitable consequence.

1.4 Theories and approaches in literature

Decision-making process and consumers' behavior have been of great interest for researchers. The first studies came out almost 300 years ago, with economists such as Bernoulli and Morgenstern; their works were mostly focused on the act of purchase, hence based on an economic perspective.

One of the first theory proposed was the "utility theory", which identifies the consumer as a "rational economic man".

The economic approach to decision-making process is only one of the approaches to the topic, and it is the first one in chronological order.

The aim of this paragraph is to analyze the main decision-making models based on approaches, which according to theories are five:

- Economic man
- Psychodynamic
- Behaviorist
- Cognitive
- Humanistic

1.4.1. Economic man

As stated before, an approach based on the belief that consumer is seen as an economic man started centuries ago.

The first theories were based on rational choices, starting from the basic assumption that consumers (economic men) already have a clear set of preferences.

Buyers will allocate their budget in order to maximize their preferences and satisfaction, a rational choice follows two steps:

- Describe all the possible combinations of goods the consumer can buy, considering the budget constraints.

- Select from all the possible combinations, the one that the consumer prefer most compared to the others.

The ability of consumers to classify all the possible combinations of goods based on desirability (preference ordering), premises four assumptions, which are:

- **Completeness**: when the consumer is able to rank and compare all possible bundles (combination of goods or services), which in reality turns to be almost impossible; there are many goods we don't know, or that we can't precisely evaluate in order to make comparisons.

- **Non-satiation**: if all the other conditions are equal, the consumer will prefer a bigger quantity of the good; the more of it the better.

- **Transitivity**: if bundle A is preferred to B, and B is preferred to C, then also A is preferred to C.

- **Convexity**: consumers prefer a mixture of goods instead of extremes; a balance between good A and B is preferred than purchase all of good A but none of B.

However, with its simplistic view, rational choice theory suffered multiple criticisms. Many economists believe that the assumptions behind this theory are weak and not realistic, furthermore it is not able to explain all the "less" rational choice behavior.
The main limitations and concerns are:

- The fact that consumers are just as likely to purchase impulsively due to influences of advertisers, role models, family and friends, as well as their mood, situation, and emotions (Smith and Rupp, 2003).

- Consumers are supposed to be aware of all the possible alternatives when making a purchase, but most of the time, they don't have access to all the information available; it is called "information asymmetry".

- Not all the consumers look for an optimal choice, able to maximize the utility. Most of the time they seek for satisfactory choice, able to fulfill their initial need, due to lack of time, knowledge and willingness.

- Last, the rational choice theory, starting from the idea that choices are egoistically made to maximize the satisfaction of each individual, does not consider different motivations.

Decisions can be based on altruism stimuli or just on different scale of values, which doesn't necessary imply the highest utility.
In conclusion, this theory is attractive, which "does not necessarily imply that a theory is acceptable, valid, or true in all circumstances" (Raymond Boudon, 1998), but for sure it worked as icebreaker for the following studies.

1.4.2. Psychodynamic Approach

Psychodynamic is a discipline within the field of psychology; its development and deepening is mostly attributed to the work of Sigmund Freud.
The assumption behind psychodynamic theory is that human personality is developed through the interaction between instinctual drives and unconscious forces.
In 1923 Freud conceived a model to describe the mind's functioning and structure; the model was graphically compared to an iceberg with three different levels: both the id (based on the principle of pleasure) and the superego (based on the principle f perfection), make up the submerged (unconscious) part of the iceberg; while the ego (based on the principle of reality) represents the emerged portion of the iceberg (conscious).
Related to decision-making process, Freud's theory has important implication; first it highlights that individuals have different personalities, and they reflect their personality on specific purchase decision. Second, the theory emphasize how consumers are often unaware about the

reasons for purchasing a specific product and not another, this because the decision-making process is driven by the unconscious.
Further contributions to this approach came from multiple scholars and neo-freudians, the most notable is Carl Jung, who elaborated a theory based on personality types. In particular, he identified four bipolar dimensions, with each pole being an opposite preference; by combinig all the four bipolar dimensions, Jung proposes sixteen different types of personality.
Jungian theory gives us useful insights about individuals' personalities; his studies uderlined how customers' choices depend on everyone's personality, and supported marketers in tailoring products specific to targeted audience.
The main tenet of this psychodynamic approach lies in the drivers of consumers' behavior, that is not determined by environmental stimuli, but by biological impulses instead.

1.4.3. Behaviorist approach

The behaviorist approach was first introduced in 1920 by John B. Watson; he conducted an experiment known as "Little Albert", where it has been taught to a small child of nine months to fear, among many initial neutral objects, the one associated with loud noises; for istance, within this project, the baby was teased by unexpected loud sounds eache time he got in contact with a white lab rat, after a while Albert showed to be completely frightened at the only sight of the animal by crying and screaming.
The final results of the experiment contradicted the psychodynamic theory, since the behavior is proved to be affected by external stimuli (a loud noise in Albert's case); Watson believed that children's character is conditioned by the external forces and the environment in which they grow.
Russian scientist Ivan Pavlov with his classical conditioning and Burrhus Skinner with the operant conditioning, set two further milestones in the study of human behavior.
Pavlovian theory stated that, a neutral stimulus won't produce any response and an unconditioned stimulus will produce an unconditioned response; however, if you present the neutral stimulus and the unconditioned stimulus together, consumers will associate the two by

producing the same response also to the neutral stimulus. This conditioned response is something that we learn.

Skinner instead, proposed the theory of operant conditioning, based on the principle that, behaviors that are followed by pleasant consequences are more likely to be repeated, while behaviors that are followed by unpleasant consequences don't.

For instance, a consumer that had a bad experience with a brand, if he has some alternatives, won't probably purchase other products from the same brand. Skinner identified three type of responses that follow a behavior:

- Neutral operants are responces that neither decrease or inrease the repetition of a behavior.

- Reinforcers, can be either positive or negative, and are able to increase the probablity for a behavior to be repeated.

- Punishers instead, produce a negative response; thus, the behavior is more likely not to be repeated.

The common theme of this theories is the belief that human behavior is shaped and determined by external factors/stimuli, not depending on individuals; this can be reflected also in the buyer decision-making process.

1.4.4. Cognitive approach

In contrast with behavioralism, the cognitive approach attributes the individuals' behavior to intrapersonal cognition; which differ from the idea of behavioral approach, where external variables/stimuli are the only factor affecting the decision-making process; cognitive approach considers individuals as an "information processor";moreover, environmental and social stimuli constitute just one of the inputs that impact a purchase decision.

With the Stimulus-Organism-Response model, proposed by Hebb in 1950, cognitive psychology became the dominant approach to decisions, taking over the atecedent paradigms such as the behaviorist one.

According to the Stimulus-Organism-Response model, there is a linear relationship between the impact of stimuli on an inactive and unprepared organism, and the responses it has, with social and environmental stimuli acting as external antecedents to the organism.

Most modern and recent scholars suggest that information processing is undertaken by an active organism, that will not only process information based on past experiences, but will also select and sort out the type of information.

Many scientists and economists sustained this new approach, and many others criticized it; however, it is one of the most commonly used and studied in the buyers' decision-making process.

The main cognitive consumer behavior models can be divided into analytic models and prescriptive models:

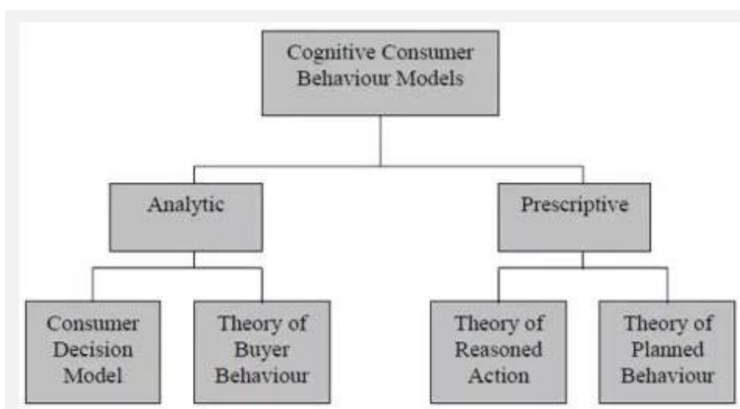

Figure 3:Cognitive consumer behavior models

- **Analytic models** identify a plethora of influencing factors, and suggest a broad relationship among all factors affecting consumer behavior. Usually they follow the traditional five steps model, and due to their wide scope, are commonly labelled as "Grand Models". The two most cited analytical models are the theory of buyer behavior and the consumer decision model.

- **Prescriptive models** instead, provide the guidelines and framework in order to give a structure to consumer behavior, but also provide the order of elements and the expected effects given certain casual factors. Here the main theories are: the theory of reasoned action (TRA) and the theory of planned behavior (TPB).

1.4.4.1. “Grand Models” of consumer decision-making process

During the ‘60s and ‘70s scholars published a considerable number of researches introducing the earliest and most influential theories, also known as “grand models”.
Important common points are:

- Models are not based on pure theoretical basis, but these the result of theories’ elaboration and analysis arising from different disciplines, such as psychology or sociology.

- Models, despite their differences, follow similar processes and stages.

Among all models, three are the most significant: the Nicosia’s model, Howard and Sheth’s model, EKB model.

Nicosia’s Model

This model of consumer’s behavior was developed in 1966 by professor Francesco M. Nicosia. It focuses on the interaction between a firm and its potential customers, dividing into four stages (fields), namely:

- **The firm’s and consumer’s attributes**, which determine two subfields; the first one deals with the firm’s communication ability/effort and with its marketing environment; the second subfield refers to the consumer’s characteristics and perceptions, for example his interpretation of the message behind an advertisement.

- **Information search and evaluation**, at this point the consumer compares and looks for alternative brands providing the same type product. The firm tries to motivate the customer to buy its own product.

- **The act of purchase**, it is the result of motivation of previous stage; after weighting all the possible alternatives the consumer makes the final decision.

- **Post consumption feedbacks**. The firm will receive feedbacks from its sales data; while the consumer could be satisfied or not from the purchase, his satisfaction level will influence future buying decision toward the same brand.

Along the four stages, the factors that affect buying decision are suggested to be motivation, experience and attitudes.

Howard and Sheth's Model

The model conceived by Howard and Sheth in 1969 is a sophisticated integration of different influential factors on the consumer decision making process and on information processing; these influences could be social, psychological and marketing.
The logic behind this model is very simple. There are some inputs arising from stimuli, and there are some outputs that end with a final purchase. In between the inputs and outputs, there are some variables able to affect the perception and learning of customers.

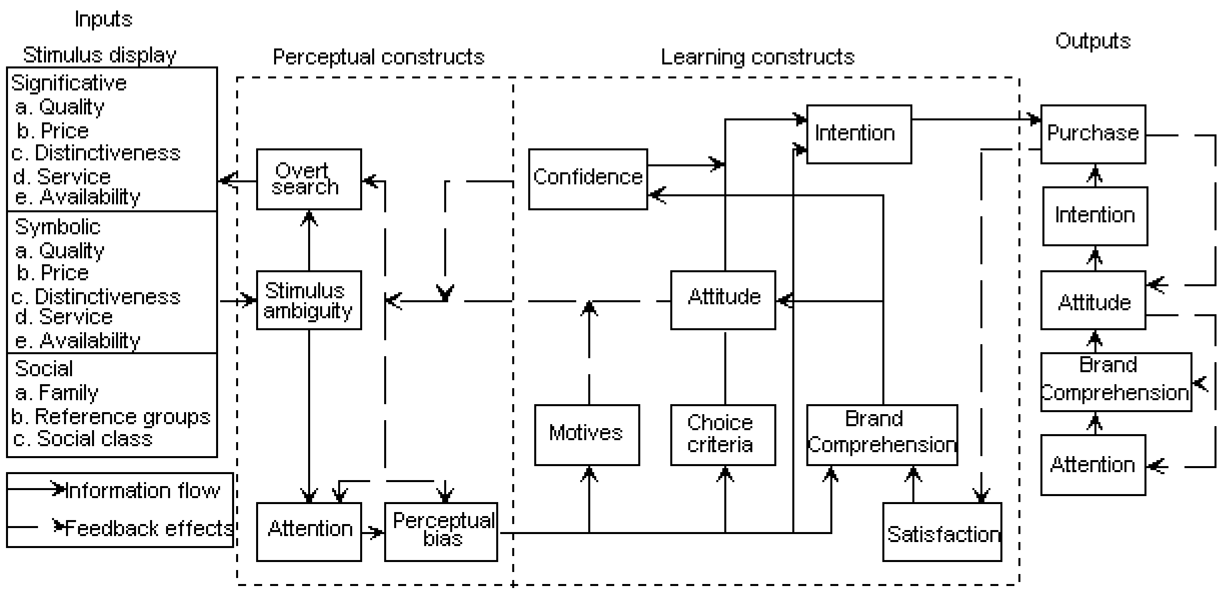

Figure 4:Howard and Sheth model, 1969

Howard and Sheth highlighted four major sets of variables:

- **Input variables**, as we said, arise from stimuli, which are of three kinds. Significative stimuli are connected to the physical characteristics of the product and brand; symbolic stimuli are related to visual and verbal characteristics; social stimuli are the ones depending on the consumer's social environment, such as family and reference group, able to influence his beliefs.

- **Perceptual and learning constructs** represent the central part of the model; these deal with the decision-making phase of customers. Perceptual variables concern with how the consumer receive and elaborate information arising from stimuli; learning variables instead, include all the preferences, evaluation of alternatives, past experiences with the brand and with the good.

- The **output** is the final decision of consumer, it is the result of all the prior phases and it can eventually end up with a purchase.

- **Exogenous variables** represent the fourth important factor affecting the decision-making process, although indirectly; examples are buyers' personality, the importance of the purchase, as well as personal beliefs or daily contingencies.

Engel Kollat Blackwell Model

Engel, Kollat and Blackwell (EKB) model has been developed to further describe the fast-growing field of consumer behavior (see image 6).
This model is characterized by four stages:

- **Information input** stage, where information arises from marketing or non-marketing activities. These inputs can affect and influence problem recognition, and might also derive from external information inputs.

- **Information processing** is the second stage, in which a long-term memory regarding the incoming inputs is modeled by consumer's exposure, attention, perception, acceptance and retention of the first stage's messages.

- The third stage concerns the **decision-making process**, which is the core of the EKB model; here the consumer, in order to make a decision, goes across five stages: problem recognition, search of information, evaluation of alternatives, purchase and post-purchase satisfaction.

- **Variables** influencing the decision process can be of three types: individual influences (such as personality and values), social influences (such as family, reference groups) and situational influences (such as economic and financial conditions).

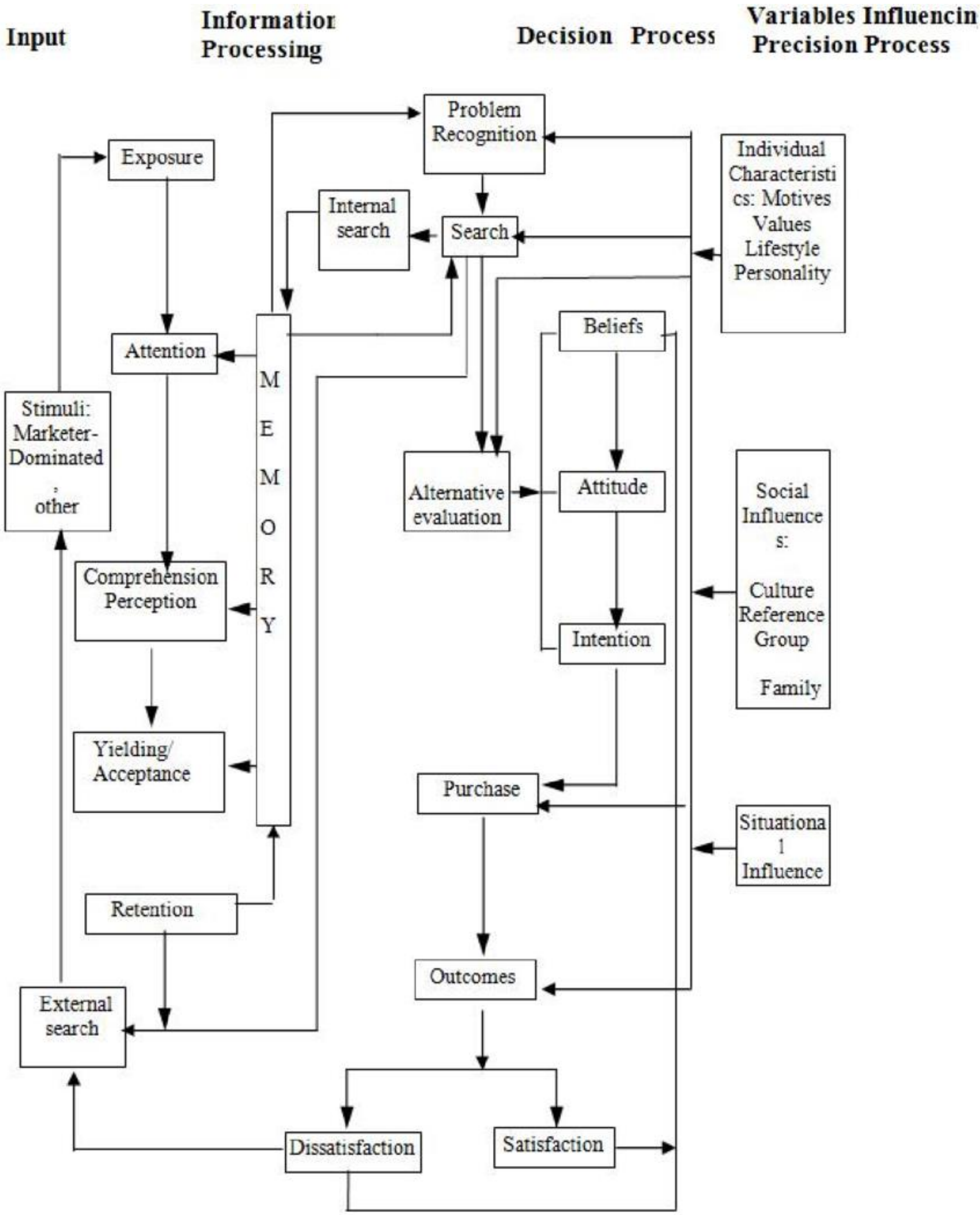

Figure 5:Engel, Kollat, Blackwell model

Critics and limitation of "Grand" Models

The grand models have been of great importance in the study of consumer decision-making process, by defining the stages, the factors able to influence the process and the way they are interrelated; However, there are some limitation to their application.

Attention to details and sequentiality of the stages are theoretical assumptions that lack of empirical evidence, not always consumers follow the same process, or they are influenced by the same factors; it differs from person to person in terms of behavior and time needed for the purchase.

Secondly, consumers don't always have clear preferences or behave rationally, but can also make unconscious decisions that affect the final purchase; so, the rational problem-solving approach at the base of grand models turns to be too rigid and misleading.

Last, the rigidity of structure makes these models adverse to behaviors' diversity and not adaptable to everyone's situation; generalization is a key indicator of a model's goodness.

1.4.4.2. Prescriptive models

Theory of Reasoned Action (TRA)

The model was developed by Martin Fishbein and Icek Ajzen in 1975, and it focuses the attention on the importance of pre-existing attitudes in the decision-making process.

Figure 6:Fishbein and Ajzen model, 1975

According to the theory, the final action, let us suppose a tourist's purchase of a flight to Paris, and the intention behind the purchase, are originated on one side from subjective norms, on the other from attitudes:

- **Subjective norms** are defined as "the person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein and Ajzen, 1975); for instance, subjective norms represent the influence that family, partners, friends, colleagues etc. have on the individual.

Hence, behind the vacation in Paris, there could be a suggestion of a close friend to get a couple days off work, far from daily stress.

- **Personal attitude** is explained by two keywords: belief and evaluation.
  The first one refers to the opinion that an individual has about a specific behavior/activity, for example "going to Paris on vacation is a very relaxing trip".
  Second, evaluation embodies the value that a subject confers to a specific outcome or possible consequence of a behavior, for example "for me is of great importance to feel relaxed".

Theory of Planned Behavior (TPB)

Further development of the theory came from the same author, Ajzen, some years later.
In 1985, the psychologist extended the TRA by adding a new important element able to influence the final action/purchase; the theory has been renamed "of planned behavior" (TPB).
Ajzen resumed the studies of Bandura (1977) about the concept of self-efficacy, defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave", furthermore, a strong efficacy can impact the wellbeing and the satisfaction of people, and for instance the one with "high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided" (Bandura, 1994).

The third variable introduced in the TPB is the perceived behavioral control, which is added to pre-existing attitudes and subjective norms.

- **Perceived behavioral control** is determined by two factors: difficulties and perceptions. The difficulties that an individual thinks he could face when pursuing a certain behavior, in terms of resources and competences; for example, “to get to Paris, I’ll need a lot of time and strong willpower”.
  The perceptions of the individual about the possibility to overcome difficulties, a self-evaluation regarding the degree of opportunities and resources that are necessary to undertake a specific behavior, “I am sure that I will relax and enjoy the vacation in Paris”.
  In the end, the final action is shaped by subjective norms, pre-existing attitudes and perceived behavioral control; the latter suggests us that people are more likely to behave in a certain manner when they feel that they can better succeed.

1.4.5. Humanistic Approach

Humanistic psychologists start from the assumption that each person understand and perceive the world in different ways, meaning that all the actions and behaviors undertaken have an explanation and start making sense.
This approach switch the focus from an objective perspective to a subjective one; as a result, scholars reject any kind of scientific method of studying individuals’ behavior; they rely instead, on people free will, capability of making decisions (either consciously or not) and tendency to grow and fulfill their potential.
Many are the theories and models linked with this approach, the main ones are: Maslow’s theory of needs, the theory of trying and the goal directed behavior.
Both Maslow and his precursor Carl Rogers believed that personal growth and potential fulfillment represent the basic human motive; moreover, the continuous pursue of this growth culminate with the achievement of self-actualization, that embodies full satisfaction in life (see par. 1.2.4.).

Theory of Trying

In 1990, Bagozzi proposed the theory of trying, a model that assesses trying to act. Subjective norms, attitudes and expectations of success, attitude toward trying, attitudes and expectations of failure are the determinants of individuals' intention to try. Also past behavior has been found to influence consumers' choice, thus it is integrated within this model.

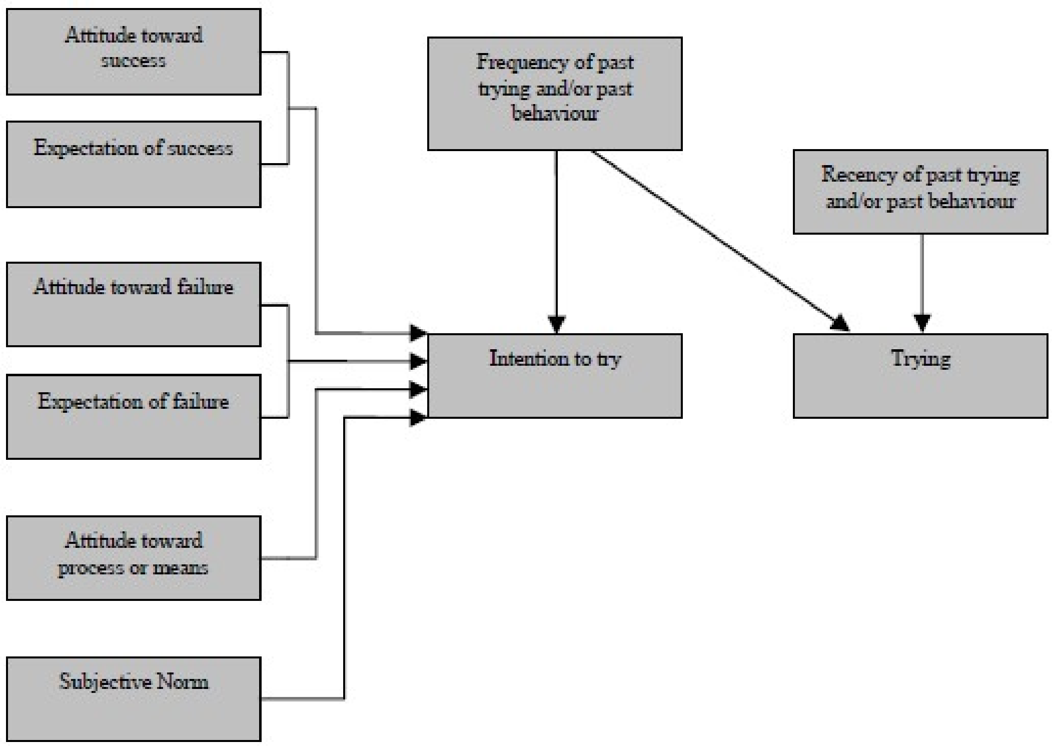

Figure 7:Theory of trying, Bagozzi 1990

As from the scheme, all the attitudes and expectation stages converge into the intention of try before being actualized and considered.

The main issue with this theory is the switch from the intention to the actual trying.

Goal Directed Behavior

The model of goal directed behavior was built on the tenets of the theory of planned behavior (TPB), however, it differs in adding the variables of positive/negative emotions and past behaviors, but also in a more complex structure driven by desire.

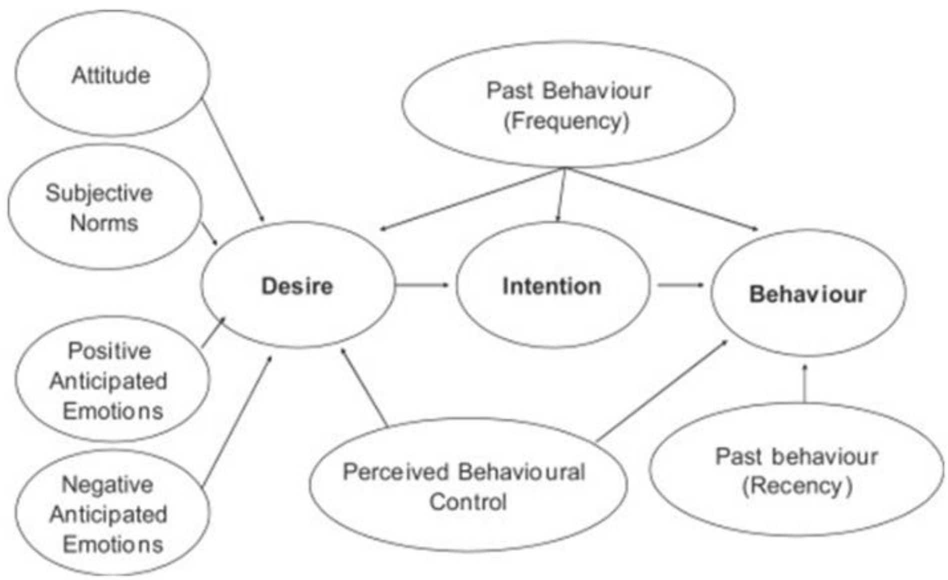

Figure 8:Goal directed behavior model

Desire is the key element of this model, it is perceived to be a stronger predictor of behavior compared to subjective norms or attitudes; for instance, businesses should understand and target the basic desires of consumers, in order to better satisfy their needs.

1.5 Levels of consumers' decision-making

The consumer decision-making process is something very complex, that is influenced by many internal and external factors, and it can be approached by different point of views; however, the effort put in the process by consumers can vary in intensity, we can recognize three different levels:

- **Extensive problem solving (EPS)** refers to a buying situation in which the consumer has not established the criteria for evaluating a product category or the various brands. In order to narrow the number of solutions and to set the personal purchase criteria, the buyer needs a large amount of information. Extensive problem solving usually occurs when the product to be purchased is expensive, technically complicated and implies long-term commitment, but also the buyer is unfamiliar with the specific good or brand.

- **Limited problem solving (LPS)**; at this level, consumers have already set the criteria for evaluating both the products and the brands, but they still don't have preferences regarding which brands to select.
  Individuals at this stage, need to gather additional brand information in order to discriminate among them; normally it occurs when buying an updated version of a product, such a new smartphone.

- **Routinised response behavior**, or routine problem solving (RPS), occurs when consumers buy cheap and frequently purchased items. Buyer buy the good without thinking to much and without gathering additional information. An example could be the morning coffee at the same bar, it is probably a routinized behavior and the client is not seeking for the best quality product among many brands or bars.
  Routinised behaviors imply that consumers have already set any personal purchase criteria and knows the alternatives available.

1.6 Tourist as consumers

So far we analysed the behavior of a generic buyer, by investigating all the factors affecting the decision-making process and by showing all the models and approach developed to frame this new field of interest.
This paragraph wants to apply the previous notions to the decision-making process of tourists, underlining whether there are differences or not, and by answering to the question: how can we adapt the theories of consumers' behavior to the specific behavior of tourists?

First, a tourist product differs slightly from common goods or services; it can be a “shopping good” (for example the summer vacation) or “speciality goods” (for example the honeymoon), both are characterised by high emotional involvment, impotant economic commitment and significant time commitment; tourist products in some cases can also be considerd as “convenience goods”, a new type of vacation phenomena that implies shorter time commitment and preparation, as well as little economic commitment (week-ends in the countryside during summer).

Second, the tourist decision-making process can be considered as an extensive (or complex) purchasing behavior (see par. 1.1).

1.6.1. Tourist decision-making models

Many scholars and economists developed different models in order to define the behavior of tourists, the most known have been proposed by Schmoll (1972), Mathieson and Wall (1982), Moutinho (1987), Casarin (1996) and Kotler, Bowen and Makens (2003), that despite some differences, and likewise the consumer decision-making process, it is possible to frame the behavior of tourists into a five stages model.

A- Perception of the need of travel

The acquisition process starts when the tourist acknowledges or identifies a need, and translates this need into motivation to buy a vacation, in order to fill up the gap between the desired condition and the actual condition.

This stage solicits the problem recognition, and it is determined by changes of the actual or desired conditions: for example, in the case of tourists, alterations of the actual condition could arise from positive or negative changes in job, own or family health, and salary; on the other hand, an alteration of the desired condition probably depends on the rise of new needs induced by the psychological and social sphere of the individual, or on the disposal and access to new information regarding other destination or experiences.

Basically, according to theory, there are two types of factors: push and pull.

Push factors normally derive from internal stimuli, and they usually have social or psychological origin.

Pull factors instead, arise from external and environmental stimuli; these are of great importance for marketing managers of companies or destinations, since they can therefore address specific tourists' needs.

The needs and puposes behind a travel can have various nature, the main categories are:

- **Holidays, leasure and recreation**: which includes visiting cultural sites, going to events and festivals, and attending summer camps.
- **Visiting friends and relatives**: it can occur with the only purpose of visiting, but also due to events such as marriages or funerals.
- **Training and education**: it can be applied at all levels, either for graduates or professionists.
- **Health and medical care**: it includes all services received by hospitals, clinics and so on, unless the treatments last for more than one year.
- **Religion**: this category refers to all the travels planned for religious purposes and pilgrimages.
- **Shopping**: occurs when the purpose is to buy a gift for yourself or others, it also includes en route travellers that stop without any specific aim but shopping.
- **Other**: such as investigating or volunteering work.
- **Business travel**: it refers to an incresing trend of travellers, very different one another, they could be either frequent travellers or not, international or local, moreover, also the purposes might be multiple, from fairs and exhibitions to congresses, meetings and conventions.

B- Information research

Collection of information is a pivotal phase; tourists look for information not only before the travel itself, but also during and after it.

The information searched depend on the information already available (past experiences), on the intensity of the initial stimulus, on the cost-benefit ratio (that represents the value attributed to the travel) and on the level of risks associated with the purchase.

The tourist, at this stage, is likely to gather information about:

- All the possible alternatives of existing touristic products.

- The features of the product such as type of accomodation, mean of transport, price, length of stay, organization and so on.

Two other important aspect to consider during this research are the sources and channels of information:

- **Sources**: these can either be internal or external, the first ones derive from past experienses (previous travels, also in different locations) and direct knowledge; the external sources can be further divided into personal and non personal ones.
  Personal external sources include all suggestions given by friends, family and acquaintances mainly through the word of mouth.
  Non personal external sources can be distinguished into commercial and public, the first ones are made available by the providers of touristic services, the second ones instead, are sourced by public organizations and agencies.

- **Channels**: these are of funamental importance, and are of two types; there are online and offline channels.
  Nowadays a tourist is more likely to mix the two types of channel in order to gather information; offline means were the most used, including people, television ads, agencies and newspapers; with the advent of internet, the online channel became more relevant, and it now represents one of the main place where to reach more information in real time and in a quick way. In that virtual environment is possible to easily compare prices (OTAs and metasearches) and opportunities, as well as finding valid aternatives to the ideal tourist product.

C- Setting and evaluating alternatives

The path of identification and choice among alternatives could be configured as a sequential process of elimination. It starts from the detection of the set of already existing tourist products able to satisfy a given tourist need. Then, the individual will identify and set the alternatives, given his cognitive limits, as well as limitations of knowledge, collection and

elaboration of information. He will therefore focus on all the feasible and affordable alternatives, taking under consideration his time, economic and personal constraints.
Last, the tourist will isolate a preferred set of altenatives, to reach in the end, a more qulified and restricted group of options where the final choice comes from.
The selected choice might not be accomplished if no longer available, tickling in the tourist the need of collecting new information and/or changing the objectives of the reasearch.
When setting the alternatives the tourist product is compared to substitute products and tourist destinations.
Finally, we can observe two kinds of tourists: psychocentric and allocentric. The former one looks for quiet and safety, they are habitual tourists and want to reproduce situations similar to their daily experiences. Allocentric tourists instead, love adventure and nature, they look for discovering and exploring new localities.

D- Tourist decision of booking, purchase and consumption

After a careful evaluation of all the alternatives, the tourist comes up with the most favourable solution able to satisfy the initial needs; he would now book or purchase everything planned for the vacation.
The booking/purchase can either occur through an intermediary, such as OTAs, or by knocking at direct suppliers’ door. Furhtermore, also timing can vary a lot, since the tourist can either book long time in advance or purchase last-minute occasions.

E- Evaluation of the experience and post-purchase behavior

At this stage, the consumer evaluates the level of satisfaction received by the vacation, depending on the initial expectations. The tourist feels satisfied when expectations meet or exceed the experience made, otherwise he won’t probably be fully satisfied and thus, unsatisfaction might generate negative behavior such as complaints, bad feedbacks and unfavourable word of mouth toward suppliers and/or destinations.

1.6.2. Determinants of tourist demand

Travel&Tourism industry is now accounting for 10.4% of global GDP, representing one of the most impactful sector within global economy and dynamics. Demand for tourist products is expected to increase consistently over the next decades, international arrivals are expected to grow, up to 1.3 billion by 2030. (UNWTO Tourism highlights, 2017)
Due to the dimension and importance of this fast-growing industry, it is crucial to identify the main determinats of its demand.
There are to set of variables that influence tourists' behavior, which are economic and non-economic.
Most of the variables, either economic or not, affecting consumer decision-making process have been already discussed (see par. 1.2); however, the aim of this paragraph is to highlight the ones specific to tourists.
We can identify economic and non-economic factors influencing demand, the first ones are:

- **Price** of vacation and subsitute goods; in a market with many substitutes the more the price is high the less demand it will reach.

- **Income** of tourists; the higher the purchasing power the higher the level of expenses for tourism. Moreover, tourist products are not commodities, thus the consumer will first satisfy his physiological needs and he would then wonder to organize and purchase this kind of products.

Non-economic factors could also be extremely effective, the main ones are:

- **Accessibility** of the destination and tourist products; it depends on multiple variables such as the difficulty to reach a place or the shortage of means of transport within the destination.

- **Free time** is another prerogative of tourism products, that imply time for planning, organizing and consuming the product that might require long periods.

- **Climate and seasonality**; sea destinations are more likely to be visited during summer, on the contrary, a ski area will be assaulted by tourists in winter when the snow arrives.

- **Quality** (or perceived quality) of the product, that is able to change the attractiveness of a destination; as an example, past environmental demage, obsolecence of accomodations, or more easily, newcoming trends.

- **Personal factors**, social factors and psychological factors (see par. 1.2).

- **Security and terrorism**; both are an undervalued factor that has huge impact on the flow of visitors toward a specific destination; after the atrocities of November 2015 in France, inbound visitors dropped by 5%, determining a decrease of almost 5 million visitors less than the previous year. The fear of wars and political instability affects tourists' decision-making process, it represents a huge deterrent for some high-potential countries (in terms of natural and cultural attractions).

1.7 Factors of choice in hospitality industry

In the previous paragraphs we highlighted the decision-making process of tourists, and the steps undertaken before, during and after a vacation. One of the most significant choice to make regards the accommodation: making the wrong decision could negatively impact on tourists' overall satisfaction.

Some would prefer to rent an apartment, while others would rather stay in luxury hotels with premium services. The "five stages" model used generically for tourists decision-making process could be applied more specifically to the choice of accommodation.

Many studies and reasearches have been conducted to identify the factors that most affect and drive customers' choice when picking a hotel; this paragraph aims to collect the main ones.

According to Petra Zabukovec Baruca and Žana Čivre, the consumers' hotel choice is influenced by several different factors; they mainly refer to three dimensions: attributes of the hotel product, marketing activities and personal characteristics of consumers. Hotel products can be viewed as bundles of various attributes which directly influence choice and they may arouse the consumers' purchase intentions and differentiate themselves from their competitors' offers (Alpert, 1971). The main elements that create competitive advantage for the hotel are: product, location, product offers and services, quality, price and reputation.

Moreover, according to Ugur Yavas and Emin Babakus, after a research based on previous studies, they listed out a number of attributes that tourists (dividing between leisure and business travelers) usually take under consideration when looking for an accommodation and selecting hotels. These are: Access to computer/modem, all room amenities in good working conditions, attractiveness of exterior design, attractiveness of interior design, express check-in and check-out, cleanliness of rooms, ease of adjusting room temperature, ease of making reservations, entertainment lounges, exercise facilities, quietness of heating and air conditioning, location, meeting facilities, 1 hour dry cleaning and ironing, promptness of service, room comfort, room rates, security.

The results of the study demonstrate how factors gain different importance depending on travelers' needs, for intance business travelers seek for different amenities when compared to leisure travelers.

Wong and Kim, in 2012, directly asked the guests about their willingness to pay for two more hotel room attributes: view from the room and room's floor level. The results of the experiment demonstrate how te maximum willingness to pay of guests vary depending on the view of the room and its floor.

Based on this study, Lorenzo Masiero, Cindy Yoonjoung Heo and Bing Pan considered to test other five factors (Price per room night, cancellation policy, guest smartphone, minibar and access to hotel club) added to rooms' view and floor.

In literature we could find many studies aimed to highlight the list of attributes that people use when selcting hotels, some examples are: Ananth, 1992; Atkinson, 1988; Barsky and Labagh, 1992; Callan and Bowman, 2000; Cadotte and Turgeon, 1988; Knutson, 1988; LeBlanc and Nguyen, 1996; Lewis, 1984; McCleary et al., 1993; Rivers et al., 1991; Wilensky and Buttle, 1988.

In conclusion, after the perception of the need of travel (see par. 1.6.1.) that allows to identify the purpose of the vacation (business, leisure, religious and so on), tourists will try to gather all possible information, that includes the selection of the accommodation. In the process of selecting a hotel, tourists will evaluate all possible alternatives and will end up with a reservation at the hotel with the features that are able to better satisfy initial needs.

To sum up, we can group the main choice factors for hotel selection into the following categories:

- Room Price/Rates
- Property Amenities (restaurant, Spa and so on)
- Rooms' Amenities and Comfort (minibar, television, bedding and so on)
- Location (place, but also quiteness, security and so on)
- Design (external and internal)
- Socio-demographic factors (age, lifestyle and so on)
- Reviews
- Standard/Star Rating

Finally, after reservation and purchase of the room by guests, they will evaluate the experience: if expectations regarding the quality of the room/service are met or exceeded the guest will be satisfied (and he will possibly leave positive reviews and feedbacks), if expectations are unmet the guest won't be satisfied. Last, satisfaction is a positive driver to loyalty and fidelization of clients, which makes that indicator even more determinant (Xun Xu and Dogan Gursoy, 2015).

CHAPTER 2: SUSTAINABLE TOURISM

Tourism industry grew consistently over the last decades, and it is expected to keep growing largely in the next future. Considering the impact that tourism has on global dynamics, we can easily wonder why sustainability is becoming one of the “hot” topics of this century.

According to *UNWTO Tourism Highlights 2017*, tourism industry accounts for the 10% of world global GDP in its direct, indirect and induced contribution; it provides one out of ten jobs and represents the 7% of world’s exports.

The more cities, regions and countries develop their tourist destinations and attractions, the higher tourism produces significant impact on environment, pollution, local communities, consumption patterns and so on.

As a consequence, sustainable planning, along with responsible management, is imperative for the industry to survive.

This chapter aims to structure and deepen tha matter of sustainable tourism, collecting existing literature and underlining possible indicators of sustainability.

“Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Our Common Future, Brundtland report, 1987). This definition highlights the long-term perspective of sustainability, which is intrisically embedded in the meaning of the word.

In English, it literally means the “ability to sustain”; in German, it is “capable of future”; in French the word is “développement durable”, that intuitively refers to something lasting and durable.

Bellagio hotel, located in Las Vegas, is one of the most famous attractions of “sin” city; along with casinos and nightlife, the water shows of Bellagio are a must-see stop for the visitors. It attracts million tourists from all over the world; however, even if the water is recycled, Bellagio still uses about 12 million litres of water per year in a water-scarse region. This is an example of what couldn’t be considered a sustainable attraction.

2.1 Sustainable tourism increasing success

Nowadays sustainability is one of the most discussed topics within economic studies. Literature is recent, but sustainable tourism has its roots in many unconscious behaviors that could be related to the phenomena. In the next paragraphs we will get through the path of sustainability and its development.

2.1.1. Historical and institutional evolution of the phenomena

The concept of sustainable development evolved through a series of institutional acts and events that took place over the last 30 years. In this paragraph the most important milestones will be considered.

United Nations Conference of the Human Environment (Stockholm Conference), 1972

The representatives of 113 countries met for te first time in Stockholm (1972) to debate, on a global basis, about environmental critical issues, and relating environmental policies with economic policies.
Despite all the divergencies of opinion, especially between northern and southern countries, the conference ended up with the enunciation of 26 principles, demonstrating the acknowledgment of environment-related issues arising from the economic development and industrial revolution of last century.

Brundtland Report, 1987

The report "Our Common Future" of the *World Commission on Environment and Development*, also known as Brundtland Report (chairman's name of the commission), aimed to:

- Re-eximine the environment-related critical issues in order to propose innovative and creative proposals.

- Strenghten international cooperation, understanding what is working properly, and what can be improved.

- Increase the commitment and understanding of many actors, such as individuals or governments.

Furthermore, the report not only defined the concept of sustainability (see par. 2), but also deepened its meaning, its limits and its potential.

Rio De Janeiro Earth Summit, 1992

The integration between the concept of environment as the essential dimension for economic development, and the concept of intergenerational responsibility in the use of natural resources, has been well explicated in the document (declariation on environment and development) originated by the United Nations Conference on Environment and Development (UNCED), also known as Rio De Janeiro Earth Summit (1992).
The document is made up of 27 principles, outlining the guidelines of today's concept of sustainable development, some important ones are:

- Centricity of human beings, who have the right to pursue an healthy and productive life in relation with the nature.
- Generational solidarity.
- Integration of environmental protection in the development process.
- Eradication of poverty as essential requirement for sustainable development.
- Assurance of citizens' partecipation through the access, for individuals, to the information concerning the environment, held by public authority.
- Precautionary method application.
- The duty for polluters to bear the costs/fees.
- The evaluation of environmental impact as criteria for all the activities that might negatively affect the environment.

- The vital role of women, young people and indigenous communities in managing environmental and development issues.
- Interdependence between peace on one side, development and environment protection on the other.

To make these principles effective, the conference disclosed four more documents:

- Agenda 21
- The statement of forest principles
- The United Nations framework convention on climate change
- The United Nations convention on biological diversity

Maastricht Treaty, 1992

According to the guidelines presented in Agenda 21, the European Union signed a treaty in Maastricht (1992), in order to transpose the principles subscribed in Rio into a new and innovated institutional approach to environmental policies.

Aalborg Charter, 1994

The Aalborg Charter is an initiative undertaken by the European Conference on Sustainable Cities & Towns in 1994. The conference has been inspired by the Rio Earth Summit, and all the european cities and regions agreed, by subscribing the document, to apply the Agenda 21's principles at a local level. The charter is made up of three parts:

- Consesus declaration: European cities and towns towards sustainability.
- The European sustainable cities and towns campaign.
- Engaging in local Agenda 21 processes: local action plans towards sustainability.

The document is a formal act, it doesn't imply any juridical obligation for the subscribers, however, it has symbolic value and implication. By adhering to the initiative, institutions demonstrate the will to pursue Agenda 21's objectives regarding sustainable development.

Johannesburg Earth Summit-II, 2002

Ten years after the first earth summit of Rio, a second summit located in Johannesburg took place in 2002. The main criticisms believed to be threathening the present and future quality of life were:

- World overpopulation.
- Increasing disparity both between riches and poors, and between north and south of the world.
- Overcoming load capacities.
- Irreversible depletion of ecological resources.
- Sanitary emergencies.
- Meet the needs of future generations.

The main challenges to face are the protection of natural resources, the integration of environmental defence with the fight against poverty, making globalization sustainable and ensuring good governances.
During the summit it has been approved a new action plan regarding sustainable development. Among the reaffirmed principles there are:

- The precautionary method.
- Common responsibilities, but differentiated between developed and developing countries.

Moreover, many projects started from the cooperation between developed and developing countries, with the partecipation of private companies, financial institution, NGOs and UN agencies; these projects adressed 12 areas of intervention, such as:

- Poverty reduction.
- Sustainable models of production and consumption.
- Preservation of natural resources and biodiversity.
- Promotion of renewable energies and energetic efficiency.

- Purification of waters.
- Protection and extension of forests.
- Heath promotion.
- Governance in a globalized system.

Decisions undertaken to pursue a better governace have been very important, it has been highlighted the necessity to:

- Ensure transparency and efficiency for all forms of government, especially through creating new infrastructure to access better information.
- Deadline for adopting Agenda 21' guidelines within national strategies before 2005.

2.2 The Three Dimensions of Sustainable Tourism

The concept of Sustainable Tourism is often confused with the one of Ecotourism and Responsible Torism, that are slightly different. The definition of Ecotourism is given by the International Ecotourism Society (TIES, 1990): "*Responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education*".
Ecotourism could be looked upon as a subset of sustainable tourism, and it puts lots of emphasis on natural areas and conserves.
The Center from Responsible Travel states "*Responsible tourism aims to minimize tourism's negative impacts on the environment and maximize the positive contributions tourism can make to local communities*". The main point of difference lies in the word "resposible", that focuses on people taking responsibility for tourism and for the impact it creates.
It privileges the role of tourists within environmental and cultural safeguard, by respecting ethical and moral codes of behavior. Therefore, we can think of sustainable tourism as a dynamic, not passive, process to the more sustainable tourism destination; sustainability is the goal of all people working on responsible tourism.
Last, sustainable tourism leans on three pillars, known as "triple bottom line"; the three dimensions are:

- Social
- Eonomic
- Environment

2.2.1. Economic dimension

Since tourism has the potential to redistribute wealth from reach to poor areas, it represents one of the three pillars of sustainable tourism. It bears both positive and negative aspects.
However, it often happens that the wealth generated in one area returns to the place of origin, it is canalized to the countries with an higher rate of economic development (let's think, as an example, to the planning of a trip or to the multiple hotels and resorts owned by foreign companies located in the countries of residence of tourists) leaving host communities in greater poverty and with dangerous social/environmental equilibriums. This phenomena is named import leakage. (M. Confalonieri, 2008)
With leakage we define the losses in foreign currency and other hidden costs.
It is possible to distinguish between internal leakage, concerning economic activities that are carried within the destination, or subject, that provides the tourist serivce, and are paid in loco (for example, foreign workers that send part of the salary to their country of origin); external leakage refers to all the costs that aren't paid in loco, and moreover, to all costs that are not born by domestic service providers, these expenses are more difficult to be quantified (as an example, all the activities undertaken by a foreign tour operator or airline). It is estimated that about 80% of the costs of an "all-inclusive package" doesn't generate revenue for the hosting country. Last, it is possible to identify a third category of "invisible" leakages, generated by all financial transactions, off-shore investments and so on. (Pérez-Ducy de Cuello, 2001)
Another negative impact could be the effect of increasing in the price of goods, services and value of the land due to competition between tourist demand and local demand.
Furthermore, localities depending heavily on tourism are affected from exogenous factors, such as trends and tourist preferences, or seasonality and climate conditions.
Among the positive economic aspects it is possible to mention the benefits in terms of revenue (especially in foreign currency, desirable for developing countries) and taxes, the creation of

jobs, improvements of transports and infrastructures, increasing of entrepreneurial opportunities, as well as increasing cultural, artistic and natural heritage of a country.

Positive and negative economic impacts of tourism might be direct, indirect and induced.

The direct impact concerns all the expenses faced by tourists (hotels, dinner in a local restaurant), indirect costs are the consequence of purchases (of goods or services) by suppliers of tourist services, while the induced economic effects refer to the expenses made by employers of touist companies. (M. Confalonieri, 2008)

2.2.2. Environmental dimension

Coming to the environmental aspect, the impact of tourism on local communities and residents has been defined as the "dark side" of tourist activities.

In fact, nature and tourism are interconnected phenomena and, under an economic perspective, it has been often favored short-term results, driven by an overuse of natural and cultural resources, at the expense of greater long-term social and natural costs.

The behavior of tourist and economic players of this kind is extremely myopic, the attention to social and environmental consequences should be maximum, because its deterioration leads to irriversely demage the tourist product of a specific locality.

Tourism makes use of a vast range of natural resources, and in most cases the core attractions of a destination are related to nature. The concept of environment could be divided into five areas (J. Swarbrooke, 1999):

- The Natural Environment: montainous areas, seas, rivers and lakes, caves, beaches, natural woodland.
- Wildlife: Land-based mammals and reptiles, flora, birds, insects, fish and marine mammals.
- The Farmed Environment: agricultural landscapes, man-made forests, fish farms.
- The Built Environment: individual buildings and structure, villages and townscapes, transport infrastructure, dams and reservoirs.
- Natural Resources: water, climate, air.

Tourism can provide an economic source for protecting such resources, but it can also be threat to their survival. Tourists make great use of of natural resources, such as the water needed for their baths or for fullfilling the swimming pools, but also their sewage that can pollute seas if not propery threated.

Tourism and environment are interdependent and strongly related, since tourism industry keeps growing quickly, it is necessary to build up a stronger relationship between the two and promote sustainability; as suggested by J. Swarbrooke (1999) this could include the following:

- Holistic thinking: the concept of ecosystems. Too often we fall in mistake by thinking of environment as independent compartments, such as wildlife or rainforests and so on; instead the environment is a more complex phenomen, made up of relationships between different systems (physical environment and flora and fauna, remembering that humans are a fauna species). To better manage the linkage between tourism and environment we need to have clear the concept, and plan accordingly.

- Regulation of the negative impacts. There is a clear need for legislation and control in order to prevent and reduce as much as possible the negative effects of tourism impact.

- Encouraging good practices. It is more pro-active and positive to encourage good practices rather than preventing negative ones; to do so, government could ensure that all new development is:
  - Built on appropriate site
  - Of sustainable scale for the localty
  - Constructed of recycled and locally sourced materials
  - Designed to be energy-efficient
  - Developed by minimizing the use of resources

- Keeping a sense of proportion. By ensuring that all the concerns and actions undertaken are proportionated to the problem’s entity. It would be useless to take expensive measure to tackle issues that are not serious.

- Raising awareness amongst tourists and the industry. Better knowledge would help in reducing some negative externalities of tourism; many of the environmental demages caused by tourism are avoidable and not deliberate.

- Paying a price that covers the environmental costs of tourism. Torusim causes environmental problems that cost money to be solved. Hence, the prices paid by the industry and tourists must be sufficient to cover the environmental costs generated by their negative impact; otherwise the cost falls on local communities and that would probably create conflicts, or problems are not tackled.

- Maintaining a balance between conservation and development. On one side it is important to preserve the natural and environmental beauty of a place, on the other side tourism creates jobs and social benefits, and it is therefore important to encourage its development and growth.

2.2.3. Social dimension

In relation to socio-cultural impacts on hosting community, on one side we have undoubted positive phenomena related to the tenor of life (creation of jobs, improvements of infrastructure) and cultural enrichment (encounter with other civilizations, consciousness of natural and artistic heritage within the area); on the other side, we have some negative aspects, highlighted under two major conditions (M. Confalonieri, 2008):

- An increase of mass tourism
- The presence of a community of a developing country

The consequences are known (increase in crimanility, prostitution, disaffection toward habits and local tradition by residents who attempt to emulate tourist behaviors). (T.C.I. Libro Bianco)
Host-guest relationship has been studied and analyzed under multiple facets:

- **Doxey's Irridex Model** describes the attitudes of residents toward tourists.

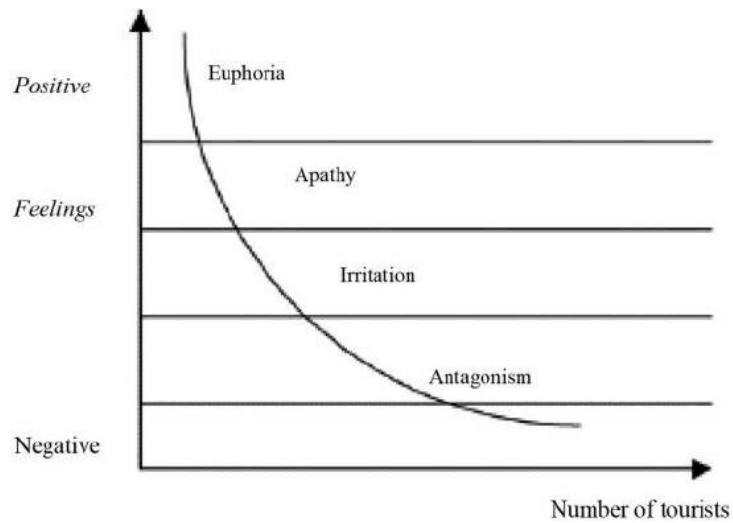

Figure 9: Doxey's Irridex Model

As we can see from the graph, the model is made of four stages; the more the number of tourists within a destination, the worse will be the feelings of residents, that is why overtourism is perceived as a very negative issue by host communities. (G.V. Doxey, 1975)

When the destination still preserve uncontaminated nature and strong roots, small numbers of tourists, according to the model, are not seen as dangers. They are instead perceived as an opportunity to increase welath and devolop small business within the destination.

When the phenomena of overtourism occurs, the experience of the hosts turns to be very bad, due to increase crime, depletion of natural and archeological sites, loss of identity; here we face the stage of antagonism.

- A study conducted by Smith from the University of Pennsylvania describes the capacity of tourists to adapt to local customs. In a scenario with mass tourism, the higher the number of inbounds visitors, the less they will adapt; even better, tourists will try to bring and look for their original habits.

  According to the research, there are excursionists, elité tourists, off-beat tourists and unusual tourists that are able to adapt to local habits with different degrees; on the contrary, incipient mass and mass tourism expect and demand for something similar to their customs.

2.3 Positive and Negative Impact of Tourism

Government and institution, when considering tourism industry, must take into account the balance between economic stability, environment, preservation of identity on one side, and development on the other side, as a priority.

However, many destinations faced some paradoxes concerning an irrational and caotic growth driven by tourism increasing phenomena, without any consideration regarding the limited amount of resources and endurance.

Tourism growth has been crucial for development, but it also brought some negative effects that we are breafly going to examine in this paragraph. The results are collected from multiple studies/researches: S. Torjman (2000); M. Confalonieri (2008); B. Archer, C. Cooper & L. Ruhanen (2005); T. Nunez (1989); J. Ap (1992); M. De Carlo (2007); C. Bizzarri (2006).

We have previously discussed about the possible economic implications for a country, from the "leakage" effect to the increase of inequalities, there are also many other negative effects:

- Pollution
- Congestion and erosion
- Damage to flora and fauna
- Cultural and social impact on hosting communities

Within the first category many are the modalities and pollutants, such as:

- Atmospheric, linked to harmful emissions (exhaust gas of cars, planes, heating and so on)
- Water pollution
- Soil pollution
- Noise pollution

Connected to the aforementioned pollution typolgies, there is the issue of managing wastes and the effects are amplified when considering seasonality in specific area.

Furthermore, these kinds of pollution bear negative "physical" aspects, such as diseases for the community, but can also irreversibly destroy flora and fauna species.

Last, another possible effect concerns the "aesthetic" and liveability of the destination (visual pollution), such as an unsuitable style or dimensions.

The other big macro-area regards the socio-cultural impact on hosting community.

Aside some positive aspects, as a better tenor of life (creation of job and income, new infrastructure etc.) or cultural effects (matching of different habits, acknowledgement of the artistic and natural heritage in the area etc.) there are some negative factors to be detected, highlighted under two main conditions: an increase of mass-tourism and a community proper of developing countries.

Consequencies are well known (increasing crimes, prostitution, emulation of tourists' customs and many others); undoubtfully a hosting community will be conditioned by meeting different cultures and lifestyles, commonly by absorbing the negative side of it.

<u>Possible economic effect of increasing tourism in hosting countries</u>

☺	▪ Source of foreign currency and state income ▪ Enhancement of personal resources ▪ Employment of not-qualified work ▪ Increase of occupation ▪ Economic development
☹	▪ Inflation ▪ Speculation ▪ Import leakage ▪ Destruction of pre-existing economic structures ▪ Less investments on other important sectors (education, health) ▪ Disequilibrium in the country's development

Possible environmental effect of increasing tourism in hosting countries

☺	▪ Preservation of natural and cultural goods ▪ Incentive for artistic fairs and local handicraft ▪ Creation of natural reserves ▪ Sensitization ▪ Building modern infrastructures (roads, bridge)
☹	▪ Extinction of flora and fauna ▪ Erosion of the territory ▪ Pollution ▪ Increase in waste ▪ Deforestation ▪ Desertification ▪ Damages to coasts and natural habitats ▪ "Eco-Monsters"

Possible socio-cultural effect of increasing tourism in hosting countries

☺	▪ Mutual enrichment between different cultures ▪ Speeding-up the effect of modernization ▪ Ending in the isolation of some communities ▪ Rediscovery of traditions and habits
☹	▪ Loss of identity ▪ Negative collateral effects of mass tourism (prostitution, crime) ▪ Local conflicts ▪ Imitative effect that leads to undesired consumption models ▪ Loss of local traditions ▪ Making culture a touristic attraction ▪ Increasing regional disparity

2.4 The UNWTO set of sustainability indicators

Sustainability is one of the most ambitious goal of European Union, it is about the need to safeguard the potential of the world to sustain life and bio-diversity.

It aims to the constant improvement of the quality of life and wealth for the present and future generations .It has been hard for European Union, governments and communities to implement the concept of sustainability; the reasons are mainly two:

- It doesn’t exist a definite method for policy-makers to measure the degree of sustainability.
- It doesn’t exist a shared and clear set of indicators to use with this scope.

We can identify two types of indicators, the “basic” ones, such as the number of visitors, while others are more complex and expensive to get, such as monitoring the air quality.
Finally, the elements and data to analyse in order to measure sustainability, should follow two requirements:

- Reliability of data, gathered by official sources and controlled by third - party institutions.
- Accessibility of data, that should be easy to access (for example from already existing database) or low-cost.

There are many issues concerning the use and reliability of data:

- A first aspect could be the time frame between planning and monitoring the indicators and the actual results.
- Another element is the cause-effect relationship arising from discontinuity in space and time; for example, the pollution of a specific coast that is due to oil loss occurred long time before or in another place.
- A third issue concerns the difficulty to ascribe certain situation to tourism instead of other industries and sectors; as an example, the growth of residential settlements, ruining pristine landscapes and habitats, that are inhabited by tourists even if sustainable.
- Furthermore, it is very difficult to identify benchmarks or tresholds that are reliable and lead to meaningful conclusions. For instance, the measure of the capacity of a destination to receive tourists in order to be sustainable is a very subjective data.
- Finally, it doesn’t exist a network or framework of indicators, able to give any dependable judgement about sustainability of tourism industry in a specific destination.

However, indicators represent a great opportunity for sustainable development, these are an important mean for gathering information and take decisions.
Last, any set of indicators need to be monitored and continuously implemented, since the interest in a specific metric could vary over time.
According to "*Making tourism more sustainable – A guide for policy makers*" (UNWTO/UNEP 2005) there are 12 aims to be pursued in order to make tourism more sustainable:

- Economic viability
- Local prosperity
- Employment quality
- Social equity
- Visitor fulfillment
- Local control
- Community well-being
- Cultural richness
- Physical integrity
- Biological diversity
- Resource efficiency
- Environmental purity

Each of these objectives wants to address specific sustainability issues, and each issue is measured by a set of indicators proposed by the UNWTO.

<u>Economic Viability</u>

Sustainability Issues	Indicators of Status and Performance
Tourism Volume and Seasonality	• Tourist arrivals or bednights by month or quarter • Day visitor arrivals per month or year • Number of bedspaces (by accomodation type) • Occupancy rates for licenced accomodations by month

	• % of business establishments open all year • Number and % of tourist industry jobs which are permanent or full-year
Product diversity, differentiation, providing variety of tourist experiences and services	• Number of different attractions in or near destination classified by type of attractions • Range of tourist services available in the destination classified by tourism services type • Use intensity of attractions and services, n. of clients and visitors per month or year • Number and type of unique features, attractions, programmes • Existence of special local products (handicrafts, cuisine, produce) • % of products sold in shops produced locally • Number, % of shops selling local products and crafts • Number % of restaurants serving typical local dishes
Access, tourism transport	• Modes of transport to reach the destination • Length of travel from international airport • Number of sites and tourism services accessible by public transport

	• Availability of transportation services at the destination
Viability/competitiveness of tourism businesses	• Cost/Price ratios (including gross margin) of accommodation, attractions, tours or packages compared to industry norms or ratios for similar products at other destinations. • Tourism revenues (growth rates) • Annual profit of tourism businesses • % of enterprises reporting growth in business over previous years • The longetivity of tourism businesses (rate of turn over) • % of tourism businesses participating in a quality scheme
Market access and promotion	• Number or % of businesses represented in different media • Number of national and international tour operators serving the destination

Local Prosperity

Sustainability Issues	Indicators of Status and Performance
Support of locally owned businesses	• % of businesses owned by local residents, nationals or foreigners • % of licensed operators run by locals
Local sourcing and supply (local products)	• % and value of products purchased locally by tourism businesses and facilities

	• % and value of local products and produce sold to tourism facilities and businesses • Number of tour operators working with local service providers, guides • Number of shops selling local products and crafts
Increased visitor staying and spending	• Average length of stay • Total local spending generated by tourism • Average spending per tourist
Tourism's contribution to social services, infrastructure	• Infrastructure and social services attributable to tourism development • Value of voluntary giving by tourists and tourism businesses • Value, frequency of community outreach programmes by tourism businesses and operators

Employment Quality

Sustainability Issues	Indicators of Status and Performance
Number and quality of employment in the tourism sector	• Total number employed in the tourism sector, by subsectors, by occupations and levels • Retention levels of employees • Average hourly earnings in tourism compared to other sectors • Number (%) of employees qualified/certified;
Local labour	• % of jobs occupied by local residents

Year round employment	• Percentage of jobs that are full time, full year; • Local unemployment rate in off-season
Training	• Number, % of enterprises providing on-the job training, number of employees involved • Training funds spent per employee, frequency of training programmes and level of participation

Social Equity

Sustainability Issues	Indicators of Status and Performance
Employment and business opportunities in tourism for women, the youth, indigenous people, poor	• % of women, youth, indigenous people, people living below poverty thresholds of all tourism employment and of all informal tourism occupations • Income levels and levels of training/skills in the above groups • % of women/man owning /controlling tourism businesses • Number,% of companies with community outreach programmes, donation schemes, value of support provided

Visitor Fulfilment

Sustainability Issues	Indicators of Status and Performance
Visitor safety and security	• Number of incidents involving tourists

	• Number of incidents reported in local and international press • Number of tourism establishments complying with safety and security standards • Availability and comprehensiveness of safety and security information in different media
Accessibility (for senior persons and people with special needs)	• Number / % of attractions and facilities (by type) with special access for people with mobility concerns • Existence of transportation with access for disabled people • Number of persons with disabilities visiting the sites
Tourist information	• Availability and comprehensiveness of information on natural and cultural values of the sites in different media. Level of use, visitation (Internet) • Number of guides • Availability of interpretative programmes, number of tourists participating • Availability of interpretative trails, visitor centres, materials

Local Control

Sustainability Issues	Indicators of Status and performance
• Local participation in planning • Effective local decision making	• Existence of a participatory planning process

• Involvement of Indigenous, traditional communities	• Existence of a multistakeholder coordination mechanism, types and number of stakeholders involved • Number of consultation events (meetings, forums) and level of participation • Existence and frequency of reporting and communication mechanisms on tourism issues and development results • Existence of awareness raising and training programme for local community, level of participation

Community Wellbeing

Sustainability Issues	Indicators of Status and performance
Pressure from tourism on local communities due to high volume and seasonal tourism activity	• Ratio of tourists to locals • Congestion at key sites: number of tourists or vehicles at key areas, number of tourists per square meter • Amount of revenue (e.g. from tax) raised from tourism and used for the maintenance of public areas, and infrastructure
Access by local residents to key local assets and services. Shortages and deficiencies due to tourism use	• % of tourist and recreational areas and sites freely accessible to the public • Number of local visitors • Cost of access • Changes in prices of goods, properties, housing

	• % of housing affordable to local residents • Frequency and duration of shortage of goods and produce due to tourism demand • Frequency and duration of deficiencies/shortages of basic public services in peak periods • Number of social services available for local community
Community Demographics	• Number of residents who have left the community in the previous years • Number of immigrants (temporary or new residents) taking tourism jobs in the past year • Net migration into/out of community
Local public safety	• Number of incidents reported • Number of crimes reported (involving tourists) • Number of tourists charged with crimes
Respecting local values, customs and traditions	• Number of incidents against local norms by tourists • Number of incidents reported on sex tourism, exploitation of children

Cultural Richness

Sustainability Issues	Indicators of Status and performance
Built heritage conservation	• Number, % of buildings retaining traditional / vernacular architecture

	• Number of traditional buildings in degraded conditions • Number of new buildings within and around heritage areas • Number of historic/traditional buildings used for tourism services • % of tourists visiting historic sites, areas, museums, other heritage attractions • Congestion at key sites: number of tourists or vehicles at key areas, number of tourists per square meter • Amount of revenue generated at heritage sites and attractions • Amount of revenue retained for site conservation • Number of tourism establishments using traditional design, materials and decoration
Information, interpretation, presentation and authenticity of cultural heritage (programs, events, products)	• Availability of interpretive programs, facilities and materials, number of tourists using them • Number of guides per tourists • Existence of typical local products, number of shops, restaurants offering them • Number of cultural events, and level of attendance

Conserving traditional culture and customs	• % of residents changing from traditional occupation to tourism over previous year(s); men and women; • Increase/decrease in cultural activities or traditional events • Number or % of residents continuing with local dress, customs, language, music, cuisine, religion and cultural practices

Physical Integrity

Sustainability Issues	Indicators of Status and Performance
Cleanliness	• Volume of garbage thrown in public areas
Quality of rural and urban landscapes	• Number of new buildings approved, build • Extension, % of area built, classified for urban development • Number of buildings, commercial signs, infrastructure, that can be seen from viewpoints, along scenic roads • Number of new buildings can be seen in historic sites • % of area, coastline covered by buildings and infrastructure, number or % of buildings exceeding the height of the vegetation cover • % of coastal area eroded • % of area with traditional land use

Use intensity of sites, congestion	• Number of tourists • Number of congested days • Number of tourists per square meter in peak periods

Biological Diversity

Sustainability Issues	Indicators of Status and Performance
Impacts of tourist and local use on flora and fauna, species population, habitat	• Number of species (count, sightings) – per key, endemic or unique species, changes in population over time • Breeding success rate of key species • % of habitat being affected by tourism infrastructure and facility development • Number of incidents on inappropriate behavior of tourists, extension of area affected • % of area with traditional land use patterns • Number of incidents on inappropriate practices by locals, % of area affected
Quality of natural landscapes	• Number of buildings, commercial signs, infrastructure that can be seen from viewpoints, along scenic roads • Extension, % of area in degraded condition visible from viewpoints, along scenic routes
Visitor infrastructure in natural and protected areas	• Length of trails, existence of signage, interpretative materials along the trails

	• % of trails in degraded/eroded conditions • Existence of visitor center, number of tourists using it • Existence of tourist information on natural features and values in different media, level of distribution and use
Information, interpretation services	• Availability of interpretive programmes, facilities and materials, number of tourists using them • Number of guides per tourists
Use intensity of natural areas	• Number of tourists • Density of tourists in key sites

Resource Efficiency

Sustainability Issues	Indicators of Status and Performance
Water use and conservation, allocation between different sectors, supply (shortages)	• Total volume consumed and litres per tourist in tourism facilities • % of wastewater recycled • Number of facilities applying water-recycling techniques • % of volume of water used in tourism, compared to other sectors, or by local population • Water price per litre or cubic meter • Total use as % of installed capacity • Number of shortage incidents per year

Drinking water quality	• % of tourism establishments with water treated to international potable standards • % of local population with access to potable water • Frequency of water-borne diseases
Energy use and saving, renewable sources	• Per capita consumption of energy from all sources • % of energy consumption from renewable resources
Land use	• % of land subject to land use regulation • % of are designated for tourism development

Environmental Purity

Sustainability Issues	Indicators of Status and performance
Solid waste	• Waste volume produced by the destination • Volume, % of waste recycled • Quantity of waste strewn in public areas
Sewage	• Percentage of sewage from the destination/site receiving treatment • % of treated sewage recycled • Number of reported pollution or contamination events per annum (by month) in watercourses receiving effluents

Bathing water quality	• Level of contamination of bathing water • # days beach/shore closed due to contamination events • Turbidity of water (simple tests) • Alternative proxy indicators where laboratory testing: - frequency of algae blooms - counts of dead fish or birds on shore - frequency counts of indicator species - which are particularly (sponges, corals, sea-urchin)
Air (quality)	• Number of days exceeding standards • Incidence of respiratory problems • Number of health problems reported by tourists and residents. • Number of warnings regarding the air pollution of the destination in major publications and guidebooks
Noise	• Noise levels at site in decibels
Environmental friendly transport	• Existence, frequency of public transport and environmental friendly transport alternatives in order to reduce emissions (air quality) and noise • %, number of tourists using public or alternative transport

2.5 Social Sustainability in the hospitality industry

Social sustainability represents one of the three dimensions of sustainability. With the planet and profit already the focal point of the industries' sustainability efforts, the issue of people and the pursue of their basic human rights is crucial and request an unfaltering focus in the communities where hospitality industry operates in. (M. Estabrook, 2013)
The hospitality industry is frequently viewed as a source of economic, environmental, social and cultural benefits through its support of job creation, improvements to infrastructures and cultural understanding. (M. Estabrook, 2013)
In this chapter (see par. 2.2) we focused on the three dimensions on sustainability (economic, social and environmental) specifically addressing sustainable tourism. In this paragraph instead, we want to analyze the hospitality industry and examine how sustainability, with a focus on social sustainability, is growing of importance.
Hospitality companies could have a huge impact on the territory, they consume water, energy, food, paper, or generate air and noise pollution, or even impact on local communities, infrastructure and occupation of space. On the other hand, these companies could also bring benefits in terms of jobs, cultural exchange, renewals of old infrastructures and so on.
As a result, stakeholders (not only travelers, but also local communities, institutions, government and so on) show a progressive demand not only in terms of higher quality of hotel services and infrastructures in general, but also about further initiatives that the companies take to protect the personality and cultural identity of destinations, along with their natural, human and patrimonial resources.
In this sense, since this industry offers activities that constantly interact with these systems, companies have a great capacity to initiate significant changes in the economic, natural, social and cultural environment.
The sphere of sustainability has been addressed in the last decades by many institutions, hence many documents (starting from Agenda 21) and agreements have been disclosed setting up guidelines, indicators and initiatives that each company needs to pursue. (A. Yenidogan, 2016)
Studies tried to frame a set of indicators applicable to hotels to address the three dimensions of sustainability:

Environmental Performance	Social Performance	Hotel-specific Economic Performance
-Ratio of average energy consumption (water, electricity, LNG etc.) to the total annual expenditure -Percentage of average annual cost savings from the investments in water conservation -Percentage of average annual cost savings from the investments in electricity and fuel energy conservation - Percentage of average annual cost savings from the waste recycling and disposal -Percentage of the area designated for landscape and protection -Ratio of the investments in green product development to the total annual sales	-Rate of female employment -Gender of general manager -Ratio of average education expenditure per person to the total annual expenditure -Percentage of the supply from local producers -Average turnover rate of supply chain -Average employee turnover rate	-Repeat guest ratio -Average rate of "same day" visitors in year -Average length of stay of the guests (nights) -Average occupancy rate in year /in high season -Average price per room in high season /in low season -Earnings per room

Figure 10:Hotels' indicators of sustainability performance, Yenidogan 2016

While environmental and economic sustainability have been largely faced by hotels through different initiatives, for what concern social sustainability many steps can still be taken and implemented.

Before categorizing social initiatives into bullet points, it is helpful and necessary to check how hotels are currently pacing toward social sustainability worldwide.

Meliá Hotels International is one of the major international chains, globally involved in sustainability; in the social arena they have undertaken many actions, considering that in MHI support for social causes, is mainly conducted through partnerships with well-known charity organizations (e.g. UNICEF, Red Cross or Save the Children):

- Education for children (under the slogan "all for them"), fighting for child protection and preventing sexual exploitation.
- Educating to disability support.
- Collaboration between hotels and local communities.
- Promotion of local customs and cuisine.
- Integration of local architecture, art and crafts.
- Integration of elements of local culture in entertainment (stories, music, local sports etc.).

- Provision of information to customers relating to cultural tourism (museums, shows, cultural landscapes.).
- Promotion of cultural resources of destinations through the provision of open spaces for cultural exchange.

Good Hotel is a floating 148-room property that helps the long-term unemployed find work through a custom-made training program. After an initial training phase, candidates are given on-the-job training at Good Hotel (with a full-time salary) before receiving assistance to find permanent work.

The Magdas hotel in Vienna is staffed almost entirely by refugees—from the cleaning staff through to the front of house. Of the 28 members of staff, 20 arrived in the country as refugees from 14 different nations. Despite living in Austria for years, many had been unable to find work. Asylum-seekers in Austria aren't allowed to work until their application has been approved, and even when it has, communication issues and a lack of work-based skills often hamper efforts.

To help prepare for an intimidating job market, staff are trained in hospitality and customer service skills, given German and English language lessons, and receive an industry-standard wage. As well as employing refugees, the hotel also offers a sanctuary for young asylum-seekers who have entered the country and are seeking a place to live.

Furthermore, AccorHotels, as we will better see in the next chapter, is involved in sustainable actions through the Planet 21 program. Social initiatives, for example, are:

- The fight against sexual exploitation of children. Accor Hotels is committed to fight against this awful crime by increasing awareness and sensitization.
- Healthy and sustainable food. Within the chain's restaurants, the aim is to reduce food waste, promote and use local food or kitchen gardens' food, banning overfished species in the menu.

In conclusion, we can highlight some areas of development of social sustainability that hotels should take under consideration (D. De Grosbois, 2012; H. Houdré, 2008):

- **Training and development of personnel**: it implies training to employees about sustainability and ethics values; training of employees about sustainable behaviors; training of employees about health and prevention of diseases.
  Monetary incentive to sustainable behaviors to employees.
- **Donations**: those could be either monetary donations (such as fund-raising for local players or financing local associations) or material donations (such as second-hand furniture, or unused food).
- **Responsible investments, local suppliers and fair-trade:** purchase of eco-labeled and fair-trade certified products, purchase of local food, km0 food and biological food, own production of vegetables and fruits.
- **Involvement of local communities:** both on the spot (such as promoting sustainable tours on the hosting territory) or in loco (by opening the hotel to fairs and exhibitions).
- **Diversity management:** organization and participation to events aimed to sensitize about gender and race diversity; hiring of female managers.
- **Communication:** hotels need to communicate through social networks their effort in sustainable initiatives or through in-loco brochures, or by participating to TripAdvisor "Green Leader" program. Investing in sustainability and its communication.

Last, the path is the right one, with many hotels taking up seriously sustainability. Environmental and economic initiatives are the most commonly promoted, on the social side improvements can be made, also considering the impact that tourism might have on hosting communities.

CHAPTER 3: INTERDEPENDENCY BETWEEN TOURISTS' CHOICE, SATISFACTION, WILLINGNESS TO PAY AND SUSTAINABILITY VARIABLES

So far, we deepened the factors affecting consumers and tourists' behaviour on one side, and the dimensions of sustainability (economic, social and environmental) on the other.
This chapter is the synthesis of the previous two, with the aim of inquiring whether there is an interdependency between them or not, by answering the questions: Do tourists care about sustainability issues when selecting and choosing a hotel? Do sustainability issues have an impact on guests' choice, satisfaction and willingness to pay a premium in the hospitality industry?
In the next paragraphs we will first frame the relationship between generic customers' choice, willingness to pay and satisfaction on one side, and sustainability variables on the other; second, we will specifically address the hospitality industry by studying the relationship between the same variables (willingness to pay, choice and satisfaction) for hotel's guests on one side, and sustainability variables in its three dimensions on the other.

3.1 Relationship between customers and sustainability variables

Many theoretical and empirical researches were conducted to study the consumers' willingness to pay for sustainable products, specifically addressing each dimension of sustainability (economic, social and environmental).
Willingness to pay (WTP) is the maximum price at or below which a consumer will buy one unit of a product.
Both economists and companies have been very interested about the topic; the first to develop new consumption models and economic theories, the latter in order to differentiate the offer and target new segments of customers.
Many studies were conducted to demonstrate a possible interdependency between consumers' choice and sustainability variables, sometimes with contradictory outcomes.
For example, some economists tried to measure the premium price that a consumer is willing to pay for sustainable/ethical goods, Loureiro and Lotade (2005) estimated a price premium of 2.4-3.3% for fair trade coffee, while De Pelsmacker estimated a higher 10% premium price for the same product.

Nielsen Global Corporate Sustainability Report, 2015

Nielsen N.V. is a global performance management company that provides a comprehensive understanding of what consumers watch and buy. In its report on global corporate sustainability the company provides many insights on consumers' behaviour.
The methodology of the report is a survey conducted online, with more than 30000 respondents in more than 60 countries. The main highlights are the following:

- In the past year alone, sales of consumer goods from brands with a demonstrated commitment to sustainability have grown more than 4% globally, while those without grew less than 1%.
- 66% percent of consumers say they are willing to pay more for sustainable brands, up from 55% in 2014 and 50% in 2013.
- Topping the list of sustainability factors that influence purchasing for nearly two-out-of-three (62%) of consumers globally. The ability to sway product purchase is driven by environmental commitment (45%) social value commitment (43%) and consumer's community commitment (41%).

Regarding willingness to pay a premium for sustainable goods:
Data reveal that 66% of respondents would be willing to pay a premium price for sustainable goods, registering a growth of 26% from 2013.

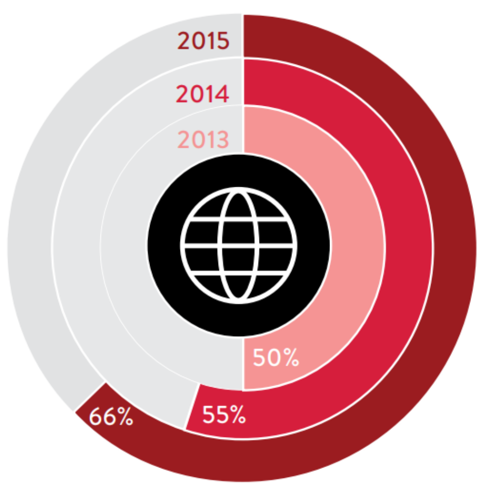

Figure 11:Willingness to pay a premium for sustainable goods, Nielsen Global Sustainability Report (2015)

Sustainability sentiment is particularly consistent across income levels. Those earning $20,000 or less are actually 5% more willing than those with incomes greater than $50,000 to pay more for products and services that come from companies who are committed to positive social and environmental impact (68% vs. 63%). The WTP also depends on the regions, consumers from Latin America, Asia, Middle East and Africa are more willing to pay a premium for sustainable goods.

Personal values play a key role as well, age and lifestyle, for example, are able to determine a different willingness to pay; generation Z (respondents under the age of 20) would be willing to pay more for sustainable goods, 72% of respondents in 2015, 17% more than 2014; 51% of baby boomers as well would pay a premium, growing of 7% than previous year.

The main drivers and influencers for the respondents are:

	GLOBAL RESPONDENTS	THOSE WILLING TO PAY MORE
The products are made by a brand/company that I trust	62%	72%
The product is known for its health & wellness benefits	59%	70%
The product is made from fresh, natural and/or organic ingredients	57%	69%
The product is from a company known for being environmentally friendly*	45%	58%
The product is from a company known for its commitment to social value*	43%	56%
The product's packaging is environmentally friendly	41%	53%
The product is from a company known for its commitment to my community	41%	53%
I saw an ad on television about the social and/or environmental good the product's company is doing	34%	45%

*For those willing to pay extra, the importance of these factors increased the most

Figure 12:Drivers of WTP, Nielsen Global Sustainability Report, 2015

Fairtrade movement growth, 2017

Fairtrade is a movement for change that works directly with businesses, consumers and campaigners to make trade deliver for farmers and workers.

The Fairtrade Foundation is an independent non-profit organization that focuses on four key areas of work in the UK:

- We license the use of the FAIRTRADE Mark in the UK.
- We help to grow demand for Fairtrade products and empower producers to sell to traders and retailers.

- We find new ways of working with our partners to support producer organizations and their networks.
- We raise public awareness of the need for Fairtrade and the significant role of Fairtrade in making trade fair.

In 2017, Fairtrade products rose by 9% exceeding for the first time the 8 billion “wall” (nearly 8.5 billion euros). Sales volumes of key Fairtrade products grew consistently in 2017, cocoa sales increased by 57%, sugar by 30%, coffee by 15% and banana by 11%.

3.2 Relationship between hotel’s guests and sustainability variables

In the previous paragraph, we analyzed the trends and relationship between generic customers and sustainable products. In this paragraph instead, the aim is to give evidence of the relationship between hotel’s guests and sustainability variables in all its dimensions (economic, social and environmental).
The analysis is based on existing researches, papers and experiments conducted in the hospitality industry, and provided by different renowned sources.

Accor Hotels and “Planet 21” project

Accor Hotels Group is one of the major player within Travel & Tourism industry. The group operates within the accommodation sector, it is one of the most important chains worldwide.
It counts 4586 hotels spread in 109 different countries; furthermore, it hosts more than 500000 guests per night and gives job to more than 250000 women and men.
The global chain is truly committed to sustainability and has made sustainable hospitality the focus of its strategic vision. In this scenario, Planet 21 is the document conceived by the company to outline quantifiable objectives to be pursued by 2020.
The key achievements are grouped in four pillars:

- Plant for the planet. All savings made on water and energy are reinvested to fund tree planting. Hotels ask the guests to reuse their towels.

- The fight against sexual exploitation of children. Accor Hotels is committed to fight against this awful crime by increasing awareness and sensitization.
- Eco-design. The hotels seek to use wood sourced from sustainably-managed forests, recycle plastic bottles to make cases and offer eco-certified soaps or cleaning products.
- Healthy and sustainable food. Within the chain's restaurants, the aim is to reduce food waste, promote and use local food or kitchen gardens' food, banning overfished species in the menu.

In order to prove stakeholders that sustainability is "worth the effort", Accor Hotels wanted to collect additional empirical evidence, so they commissioned an independent study by Accenture Strategy to assess the financial return of a number of sustainable initiatives.
All indicators used in the research have been standardized, regardless of location, country, brand or management; furthermore, it was analyzed the performance of more than 2900 different hotels between 2011 and 2013.
The results of the study confirmed that there is a positive and clear link between sustainability initiatives, business performance and guest satisfaction. The whole work was based on statistical and quantitative analysis, using the Pearson linear correlation statistics for two parameters: however, since Pearson tool doesn't demonstrate the casual effect between to variables, Accenture Strategy also developed distribution graphs and contingency tables to illustrate the relationship between movements from different Charter 21 levels and EBIT.
Charter 21 is Accor hotels' internal system for managing hotels' sustainable development performance. It recommends 65 actions to undertake to reduce environmental footprint and increase social responsibility initiatives. Last, it also provides a framework for the gradual deployment of these actions with a four-level performance rating system, Bronze (corresponding to basic prerequisites), Silver, Gold and Platinum (for the most advanced hotels).

Five are the main findings of the study:

1. The ISO 14001 positively impacts guest satisfaction.

The results show that certified hotels have a greater satisfaction than non-certified ones. The positive relationship is measured by a correlation coefficient of 0.19.

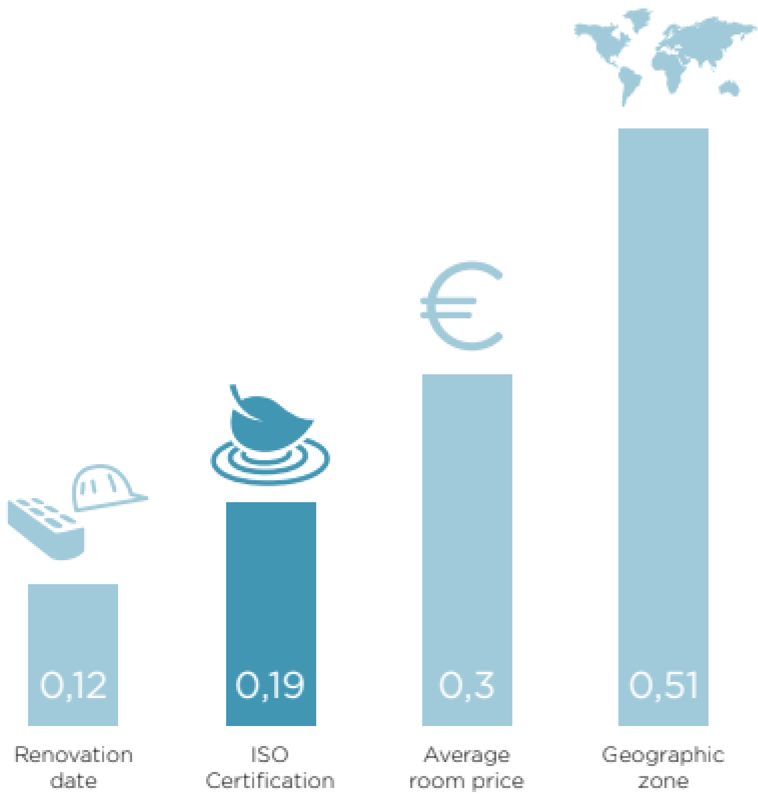

Figure 13:Impact of ISO14001 on guest satisfaction, AccorHotels and Planet 21 project

What we can observe is a positive correlation between guest satisfaction and ISO 14001 certificated hotels, more than hotels' renovation, but less than room price and location as easily predictable. The research does reveal a positive correlation but doesn't tell the reasons behind this finding.

2. ISO 14001 certification helps achieve higher Charter 21 levels

In addition to guest satisfaction ISO 14001 seems to positively influence the Charter 21 level hotels have achieved, which in turn can affect a property's sustainability achievement

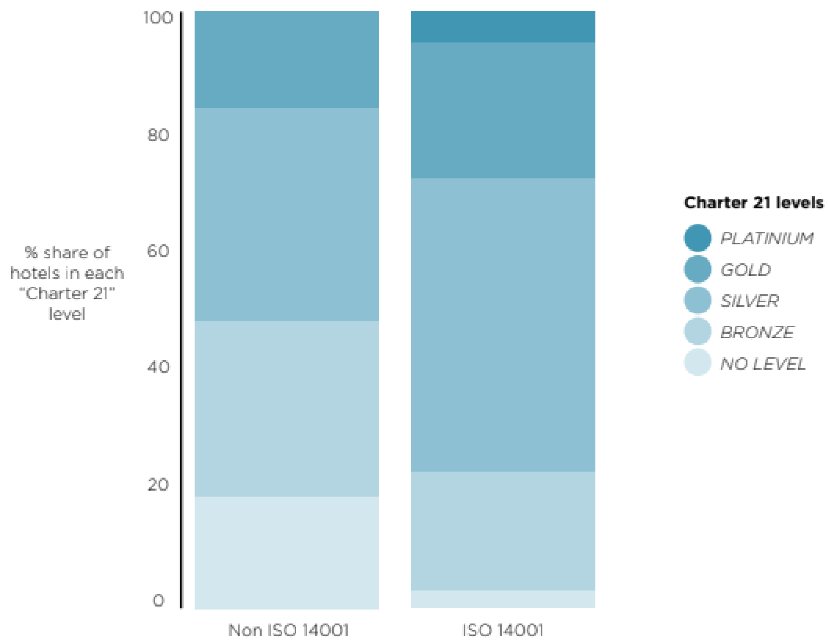

Figure 14:Impact of ISO14001 on Charter 21 levels, AccorHotels and Planet 21 project

From the chart we can observe that non-certified properties are less likely to achieve Charter 21 levels, while hotels with certification are more likely to reach at least Silver level. In this scenario as well, ISO 14001 has a positive effect in pursuing Charter 21 objectives.

3. Charter 21 has a positive link with guest satisfaction.

Given the preceding two findings, we can infer that guest satisfaction is driven and boosted by Charter 21 as well. Accenture Strategy exactly found a positive correlation between these two variables, with a ratio of 0.33.

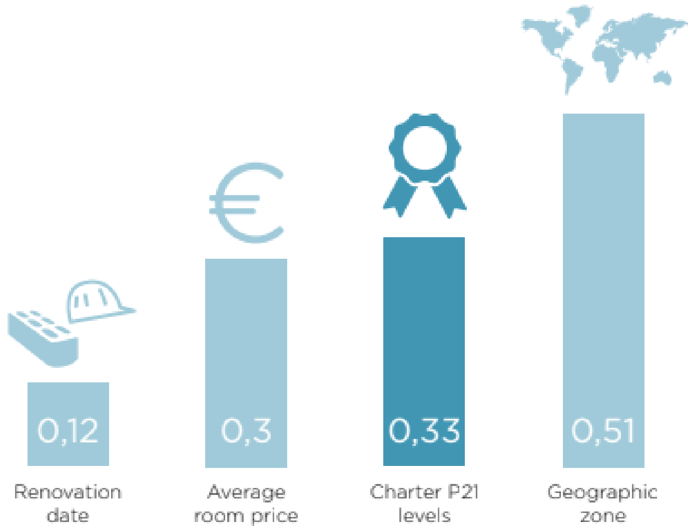

Figure 15:Impact of Charter 21 on guest satisfaction, AccorHotels and Planet 21 project

The chart shows that there is a stronger relationship between guest satisfaction and Charter 21 than ISO 14001. The finding is intuitive since Charter 21 represents a commitment, made of 65 actions, that implies not only processes, but also tangible physical assets and technologies (for example water savings devices).

Last, the results show higher satisfaction related to Charter 21 than room price but still lower than location.

4. Charter 21 has a positive effect on hotel profitability.

The Accenture Strategy report shows a positive correlation between sustainability and guest satisfaction; in the last two findings instead, the research demonstrates a positive correlation also between Hotels' profitability and sustainability, at least when Charter 21 is concerned.

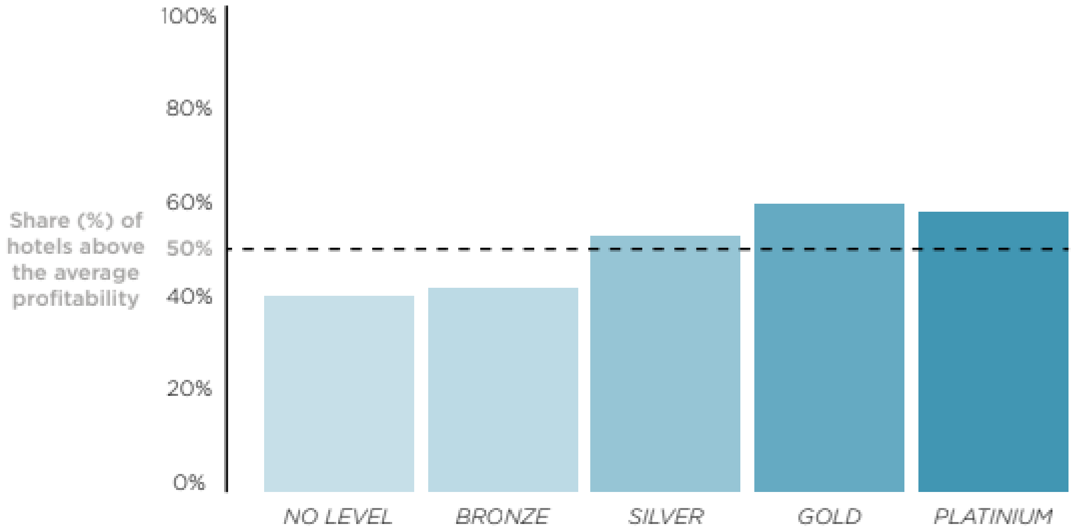

Figure 16:Impact of Charter 21 on hotel's profitability, AccorHotels and Planet 21 project

The figure above represents the share (%) of hotels above the average profitability on the y axis, and the Charter 21 categories on the x axis. The trend is clear, the higher the sustainability performance, the higher the hotel's profitability.

The measure of profitability is the EBIT, and it grows depending on sustainability initiatives undertaken, the only little exception occurs at the highest level (Platinum); the reason could be that Platinum status requires capital intensive assets or greater operational expenditures. Silver, Gold and Platinum level still guarantee a profitability above average; a possible explanation is on one side a higher guest satisfaction that turns into higher profits, on the other side a reduction in costs due to sustainable initiatives (such as reducing water or energy wastes).

5. ISO 14001 has a neutral effect on profitability

If Charter 21 positively affects profitability, we cannot tell the same for ISO 14001 certification. The latter seems to have a neutral impact on hotels' profits, the assessment found a coefficient correlation of 0.00.

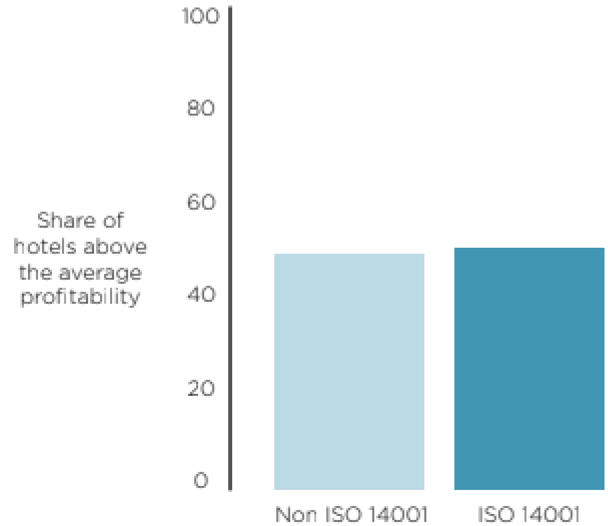

Figure 17:Impact of ISO 14001 on hotel's profitability, AccorHotels and Planet 21 project

The study doesn't provide evidence on the causes, but one can infer that the cost of attaining the ISO 14001 certification (in training, in audit etc..) is offset by the savings achieved in water, energy, wastes and so on.

Last, if on one side the certification doesn't impact profitability, on the other it bears intangible benefits, both environmental and social.

Xun Xu and Dogan Gursoy, 2015

In 2015, Xun Xu and Dogan Gursoy conducted a research in order to measure the relationship between satisfaction, loyalty and willingness to pay on one side, and the three dimensions of sustainability on the other (economic, environmental and social). The results are interesting. They started from five hypotheses:

1. The environmental, social and economic dimensions of sustainable hospitality supply chain management have significant positive impact on customer satisfaction.
2. The environmental, social and economic dimensions of sustainable hospitality supply chain management have significant positive impact on customer loyalty.
3. The environmental, social and economic dimensions of sustainable hospitality supply chain management have significant positive impact on customer willingness to pay a premium.
4. Customer satisfaction has a significant positive impact on customer loyalty.
5. Customer loyalty has significant positive impact on customers' willingness to pay.

The sample was composed of 499 valid questionnaires, results are analyzed based on respondents' variables (gender, age, highest school degree obtained, marital status, occupation). The results are shown in the table below:

Hypotheses	Standardized path coefficients
Hypotheses 1a: Environmental dimension of SHSCM → satisfaction	0.32**
Hypotheses 1b: Social dimension of SHSCM → satisfaction	0.38**
Hypotheses 1c: Economic dimension of SHSCM → satisfaction	0.13*
Hypotheses 2a: Environmental dimension of SHSCM → loyalty	0.13*
Hypotheses 2b: Social dimension of SHSCM → loyalty	0.02
Hypotheses 2c: Economic dimension of SHSCM → loyalty	0.09*
Hypotheses 3a: Environmental dimension of SHSCM → willingness to pay	0.25**
Hypotheses 3b: Social dimension of SHSCM → willingness to pay	−0.30**
Hypotheses 3c: Economic dimension of SHSCM → willingness to pay	0.23**
Hypotheses 4: Satisfaction → loyalty	0.71**
Hypotheses 5: Loyalty → willingness to pay	0.59**

Figure 18: effects of three sustainability dimensions on satisfaction, loyalty and WTP, Xun Xu and Dogan Gursoy, 2015

The key findings are:

- Tourists' satisfaction seems positively related to all dimensions of sustainability, hence economic, social and environmental inputs increase the level of satisfaction of travelers.
- Willingness to pay a premium occurs for economically and environmentally sustainable variables, while this is not true for social sustainability.
- Loyalty is also influenced positively by economically and environmentally sustainable initiatives/products, while social sustainability not.
- Satisfaction of guests has a strong link on customers' loyalty and retention.
- Loyalty in turn strongly affect willingness to pay a premium.

The significant negative influence of social dimension actions on customer willingness to pay a premium might be due to several reasons. First, the social dimension actions include only the actions taken toward enhancing the welfare of internal and external stakeholders.
These actions may not have direct significant impact on customer's willingness to pay a premium because they may not be visible to consumers.

Thus, customers' lack of awareness about hospitality companies' corporate social responsibility initiatives and hospitality companies' unwillingness to invest in social responsibility actions may lead to this negative influence.
Furthermore, customers may be willing to pay a premium if they consider the company's actions as value adding actions that can bring benefits or returns to them.

Booking.com, 2018

A study conducted by Booking.com, leading company for online accommodation bookings, reveals that travelers are choosing with increasing consciousness sustainable accommodations. The research was disclosed last 17th of April, and was named "sustainable travel report", it shows how the trend of "green travels" is continuously growing.
The majority of travelers (87%) say they would be willing to take a sustainable vacation, and almost 4 out of 10 (39%) confirm to do it always (or often).
Even if the concept of "sustainable travel" is subjective and vary from person to person; half of respondents (46%) link the concept to eco-friendly accommodation. The main reasons that lead to pick that kind of stay are to reduce the negative environmental impact (40%), to live an authentic and local experience (34%), and to make the right choice regarding the accommodation type where to stay (33%).
Looking at the future, two third of participants (68%) say they are willing to stay in an eco-friendly accommodation in 2018, growing from previous years, 2017 (65%) and 2016 (62%).
Inspiration for a sustainable travel arises from multiple sources, weighted differently:

- Natural views seen during past sustainable travels (barrier reefs, forests and so on). (60%).
- Visible impact of tourism on the destination. (54%).
- Admire the positive impact that tourism might have on local communities. (47%).
- See the negative effects of tourism in their own countries. (42%).
- Feel responsible for environmental impact of its own vacation. (32%).

Possible obstacles to sustainability could be:

- Eventual extra-costs. (42%).
- Missing information or certifications. (32%).
- Time. (22%).
- Destination (if sustainability is an input, the choice would be really limited). (22%).
- Comfort of a possible accommodation. (20%).

Last, possible sustainable activities that could increase satisfaction during the stay:

- Buy local handicraft products instead of souvenirs (53%).
- Use public transport instead of taxis. (52%).
- Go to restaurants using only local products. (41%).
- Avoid the most crowded attractions and go to less touristic places. (40%).
- Stay in a unique and certified accommodation instead of traditional hotels. (30%).

Finally, according to all the studies illustrated so far, it seems clear there is a positive linkage between guests' decisions/choices and sustainability issues. Reliable researches, such as the one conducted by AccorHotels, and prestigious reports, as the Nielsen Global Corporate Sustainability one, give empirical evidence of the relationships.

Customers in general, and hotel's guests specifically, would be willing to pay a premium price for sustainable products and services. Increase in satisfaction as well is driven by the presence of sustainable initiatives carried by tourists.

Taking up the question in the introduction to the chapter: do tourists care about sustainability issues when selecting and choosing an accommodation? We are now able to provide an answer. Yes, tourists care, and value some features more than others. Data show that people are increasing attention to the topic, but there are still important blockers that institutions need to overcome, such as asymmetric information or quality certifications.

In conclusion, the following label will sum up and highlight the main variables discussed that will be core of my analysis in the next chapter:

Non-sustainable questionnaire

Independent variables	Dependent variables	Moderator variables
Star rating	Customer choice of hotel	Corporate image
Location/position	Guest satisfaction	Attitude toward travel/accommodation
Price	Willingness to pay a premium	Socio-demographic variables
Online reviews		
Property/room amenities		
Wi-fi connection		
Rooms' floor		
Rooms' view		
Quality of staff		

Sustainable questionnaire

Independent variables	Dependent variables	Moderator variables
Star rating	Customer choice of hotel	Corporate image
Location/position	Guest satisfaction	Attitude toward travel/accommodation
Price	Willingness to pay a premium	Socio-demographic variables
Online reviews		
Property/room amenities		
Wi-fi connection		
Rooms' floor		
Rooms' view		
Quality of staff		
In-house local cultural activities/exhibitions		

On the spot tours to make traditional and authentic experiences		
Donations to support local communities		
Local producers/products (also km0)		
Social activities well sponsored (online advertising)		

CHAPTER 4: EMPIRICAL ANALYSIS

4.1 Introduction to the empirical analysis

Based on the theoretical frameworks analyzed in the previous three chapters, this final section strives to give a better and deeper understanding of the relationship between tourists' behaviour and sustainability, by empirically studying the effects that socio-cultural sustainability variables have on tourists' choice of a hotel.

In order to reach this objective, a research has been carried out. Therefore, an *ad hoc* questionnaire has been prepared in order to investigate how socio-cultural sustainability variables positively affect the way tourists choose a hotel

Taking back the question of thesis: **Does social sustainability influence customer's choice of hotel, expected satisfaction and willingness to pay?** This last section aims to give an empirical answer based on the survey's results.

So, this chapter is divided into two parts: the first is devoted to the aforementioned empirical study and introduction of the questionnaire, while the second one aims at giving some overall considerations stemming from the analysis of the results.

4.2 Methods

4.2.1. Sample

The data for this study, carried out through a questionnaire, have been collected in the month of January.

The survey consisted of different blocks for a total of 23 questions, that have been administrated to a set of customers/tourists. The questionnaire has been created through Qualtrics platform, and distributed via e-mails, social media and WhatsApp.

It has been divided into 5 parts, that we will deepen and present in the next paragraph.

The first section focuses on the description of the hotel; there will be two different scenarios regarding the same hotel: one will present the hotel with all the amenities and features, while the other one will present the same hotel with the addition of some social sustainable initiatives undertaken. The two stories will be randomly distributed to the audience; therefore, part of the sample will answer based on the luxury hotel, the other will answer based on the luxury hotel involved in sustainable projects. In this section are described the independent variables used for the research.

A second, third and fourth sections are composed of multiple-choice questions, aimed at deepening three dependent variables that are:

- Customer choice
- Willingness to pay a premium (WTP)
- Guest satisfaction

Finally, the last two sections aimed at studying whether there is a positive influence or not due to the following moderator variables:

- Socio-demographic variables
- Corporate Image

4.2.2. Research variables and statistical model

All the variables that have been mentioned before grouped into different blocks, and each block is aimed to analyze one dependent variable through multiple-choice questions.

The variables are measured by using a seven – point Likert – type item, from “1 = strongly disagree” to “7 = strongly agree”. By definition the Likert scale is a “is a 5- or 7-point scale that offers a range of answer options — from one extreme attitude to another, like “extremely likely” to “not at all likely”.

The advantages of using this statistical model are:

- You can have more granular feedbacks than binary questions. The binary statistical model will allow respondents to state whether they like or dislike something, while a Likert – scale type enable respondents to take a neutral position within the questions they are answering.

- Likert – scale questionnaires are quite popular due to their reliability in measuring opinions, perceptions and behaviors.
- Likert – scale surveys keep respondents happy and satisfied due to the simplicity of answers and language.

On the other side, the possible drawbacks of a Likert-scale type model are:

- Seven-point Likert items suffer from response style bias. Response styles are response biases which respondents display independent of the content of the questions. Response biases are defined as “a systematic tendency to respond to a range of questionnaire items on some basis other than the specific item content (Paulhus, 1991). It is widely acknowledged that not only do individuals differ in their response styles, but, more critically, groups of respondents coming from different cultures display different response styles.
- Such cross-cultural response styles are a serious problem in tourism research, where often respondents from different cultures are surveyed. Once the data is collected it is hard to differentiate whether, for example, a “7” on the seven-point answer format indicates a high level of agreement or indicates slight agreement plus a response style. (S. Dolnicara, B. Grun, F. Leisch & J. Rossiter, 2011).

The variables analyzed in this work have been mentioned in the previous paragraph and are explored in different blocks of questions within the survey.
The questionnaires are framed in six blocks, and as already said, two different types of surveys have been submitted. The beginning of each questionnaire is composed of a “story”, or description, of the hotel; one is a Marriott hotel involved in social sustainable initiatives, the other description refers to the same Marriott hotel that is not involved in any sustainable activity. The survey is submitted randomly to the audience, and respondents were asked to answer 23 questions (see appendix) about their expected satisfaction, their willingness to pay a premium for the aforementioned hotel and their choice decisions. Finally, in order to have a picture of the sample, respondents were asked to provide socio-demographic information, as well as information about their attitudes and brand recognition (see appendix).

In conclusion, the survey aims to answer, by providing evidence, to the thesis question: **Does social sustainability influence customer's choice of hotel, expected satisfaction and willingness to pay?**

To do so, the results are drawn by comparing the answers of the two surveys. If we expect social sustainability to have positive effect on the three examined variables, we will see a consistent difference, on average, of the answers between the two questionnaires.

4.3 Research findings

In paragraph 4.2.2. I introduced the three research variables that will compose the fulcrum of my work. The three variables have been analyzed through multiple questions submitted via online surveys.

This paragraph aims to examine and measure the results obtained for each variable, results will be validated by applying statistical models and tests.

To carry on the analysis, I will use RStudio software, which is a statistical tool that I will need to study my dataset and test my hypothesis. Before starting with the explanation of results, I need to make some annotations:

- Not all questionnaires filled in Qualtrics have been answered completely; some statements are left without an answer. When data are exported into Excel files, missing responses generate blank cells, which are not allowed in the statistical models applied. Thus, I used the following rules:
  - If a questionnaire has less than half of the questions completed, then the survey is not considered valid (UNVALID QUESTIONNAIRE).
  - If a questionnaire is partially completed with more than half of the questions, then the survey is considered valid, and blank cells are statistically imputed (VALID QUESTIONNAIRE).

- Among all valid questionnaires, the blank cells left need to be fulfilled. For data imputation I conceived the following generic rules:

- If we miss responses for Likert-scale type questions (Q1 – Q2 – Q3 – Q5 – Q6 – Q7 – Q8 – Q9 – Q10 – Q11 – Q12 – Q13 – Q14 – Q16 – Q17 – Q18), in the blank cells I ascribe the average value of the answers given to each question, divided by type of questionnaire (NS if not sustainable, S if sustainable).
- If we miss responses for the open questions (Q4 – Q15), in the blank cells I ascribe the average value of the answers given to each question, divided by type of questionnaire (NS if not sustainable, S if sustainable).
- If we miss data for the age of retired workers, I ascribe 72 years, which is the average age of all retired workers.
- If we miss data for the age of male employee, I ascribe 40 years, which is the average age of all male employees.
- If we miss data for the salary of students, I ascribe "<15000", which the most frequent salary of all students.
- If we miss data for the gender of manager, I ascribe male, which is the more probable gender for managers.

- Resuming the aim of this work: we want to analyze whether variables of social sustainability have an impact on: 1 - The choice of the hotel by tourists 2 - The expected satisfaction of guests and 3 - The willingness to pay a premium for the sustainable hotel. After graphically showing the results of each answer in terms of frequency, I will test in RStudio my initial hypothesis following two steps:
  1. Applying the Wilcoxon Test.
  2. Using the logistic regression model

- **Wilcoxon Test**: "which refers to either the Rank Sum test or the Signed Rank test, it is a nonparametric test that compares two paired groups. The test essentially calculates the difference between each set of pairs and analyzes these differences. The Wilcoxon Rank Sum test can be used to test the null hypothesis that two populations have the same continuous distribution. The base assumptions necessary to employ this method of testing is that the data are from the same population and are paired, the data can be measured on at least an interval scale, and the data were chosen randomly and independently.

The Wilcoxon Signed Rank test assumes that there is information in the magnitudes and signs of the differences between paired observations. As the nonparametric equivalent of the paired student's t-test, the Signed Rank can be used as an alternative to the t-test when the population data does not follow a normal distribution." (Investopedia, n.d.).

The Wilcoxon test (for paired samples) ranks the absolute values of the differences between the paired observations in population 1 and population 2 and calculates a statistic on the number of negative and positive differences (differences are calculated as sample 2 − sample 1).

Furthermore, the Wilcoxon Rank Sum test is applied when we need to compare the means of the values of two populations that are not following a normal distribution.

Given the definition, in our case the two populations under observation are named NS (including all respondents to the non-sustainable questionnaires) and S (including all respondents to the sustainable questionnaires).

The two hypotheses to be tested are:

H0: $\Theta = \Theta_{NS} = \Theta_S$

H1: $\Theta \neq \Theta_{NS} \neq \Theta_S$

Where H0 states that population NS and population S follow the same distribution trend, or the difference between them is not significant. H1 instead, states that population NS and population S don't follow the same distribution trendline, and the difference is significant.

The test will result in a P-value number, that:

- If the P-value is lower than 0.05, then we can reject the NULL hypothesis H0 that NS and S have the same distribution tendencies.
- If the P-value is greater than 0.05, then we can't reject the NULL hypothesis H0 that NS and S have the same distribution tendencies.

Wilcoxon test will be helpful in the research because it tells us whether there is a significant difference in the answer given by the two populations, which are NS and S.

- **Logistic Regression Model**: "is the appropriate regression analysis to conduct when the dependent variable is dichotomous (binary). Like all regression analyses, the logistic regression is a predictive analysis. Logistic regression is used to describe data and to explain the relationship between one dependent binary variable and one or more nominal, ordinal, interval or ratio-level independent variables". (Statisticssolutions, n.d.)
  Given the above definition, I will apply the logistic regression model only to the dependent variables that have a significant difference in the tendencies of the answers between the two populations (NS and S), measured by Wilcoxon Test.
  In order to use the logistic regression model, the dependent variable needs to be dichotomous (0,1), hence I will apply the following rule:

  - 0: NS
  - 1: S

Now, given all the assumptions, we can start the analysis of results, and it will be structured as follow:

- The first section will highlight the composition of the sample, by highlighting the results to the answers of Block 6. I will report a picture of respondents in terms of: type of questionnaire (NS/S), gender, age, occupation, income level and nationality.
- The second section will deepdive the three dependent variables I want to study: customer choice, guest satisfaction and willingness to pay. I will compare the answers for the two type of questionnaires, and I will validate the answers by applying the Wilcoxon Test.

Analysis of the sample

First of all, it is fundamental to highlight the number of all the answers received, which equals to 297 in total, but not all questionnaires have been counted for the statistical analysis; if a questionnaire is not completed or just partially completed for less than half of the questions, then the questionnaire is set aside and not considered.

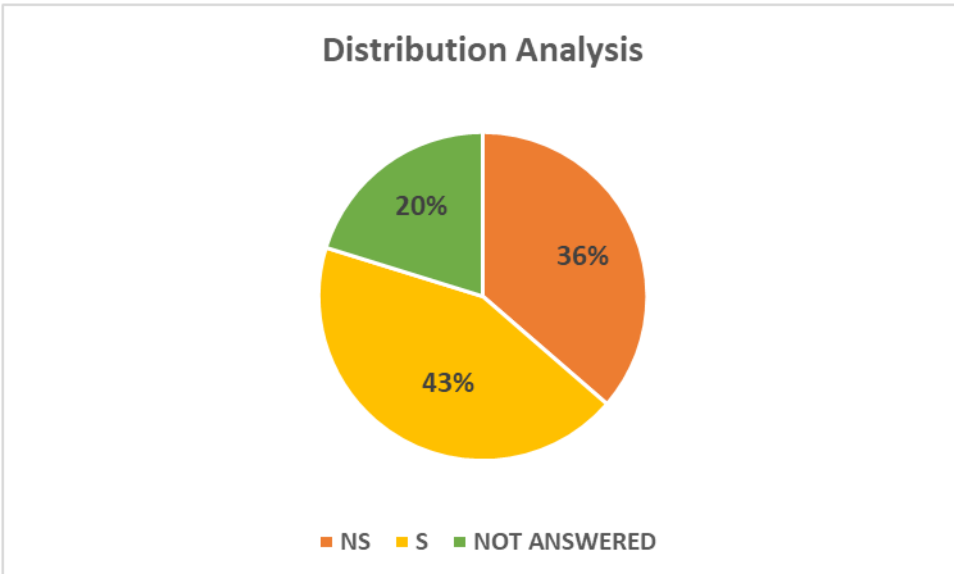

Table 1:Distribution of questionnaires in percentage

As we can see from Table 1, 36% of the sample received a questionnaire that refers to the not sustainable (NS) hotel initial description, 43% of the sample answered to the questionnaire that starts with a social sustainable (S) hotel description, the remaining 20% corresponds to the deleted questionnaires that were uncompleted or partially completed (less than half of the answers).

Let's start giving socio-demographic insights about the sample, taking under consideration only valid questionnaires for a total of 237 responses.

- **Gender:** from the R output we can observe that more than half of the sample is made of female with 131 answers (55%), while male (106) account for the remaining 45% of the pie. As graphically shown in Table 2, the sample is nicely balance in terms of gender.

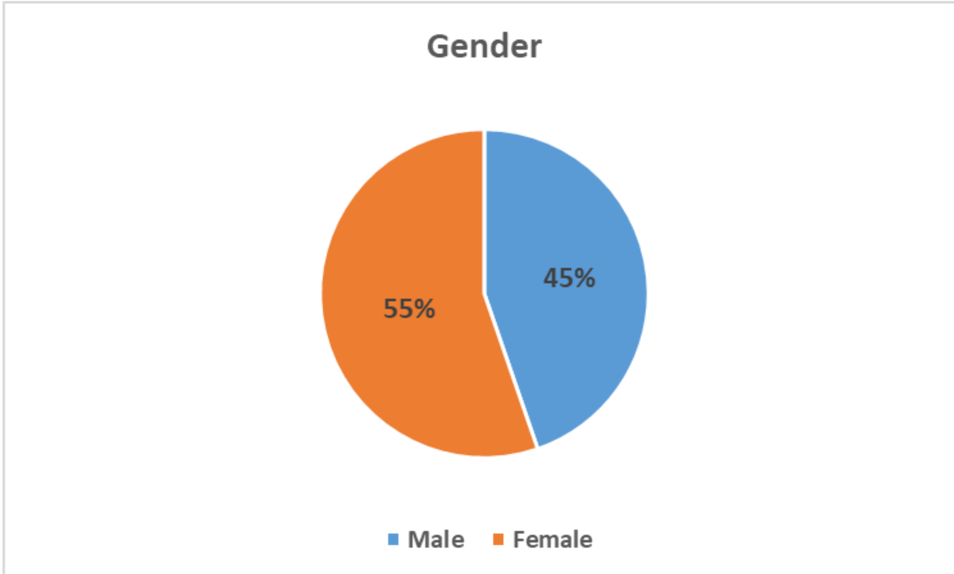

Table 2: percentage of answers received according to the gender

- **Age**: Table 3 shows the percentage of respondents divided by age categories. As we can see, the majority of respondents (54%) is between 19 and 29 years old; it is followed by people over 50 years old (27%). Finally people between 30 and 50 years old (16%) and with less than 19 years old (3%) complete the picture of the sample divided by age.

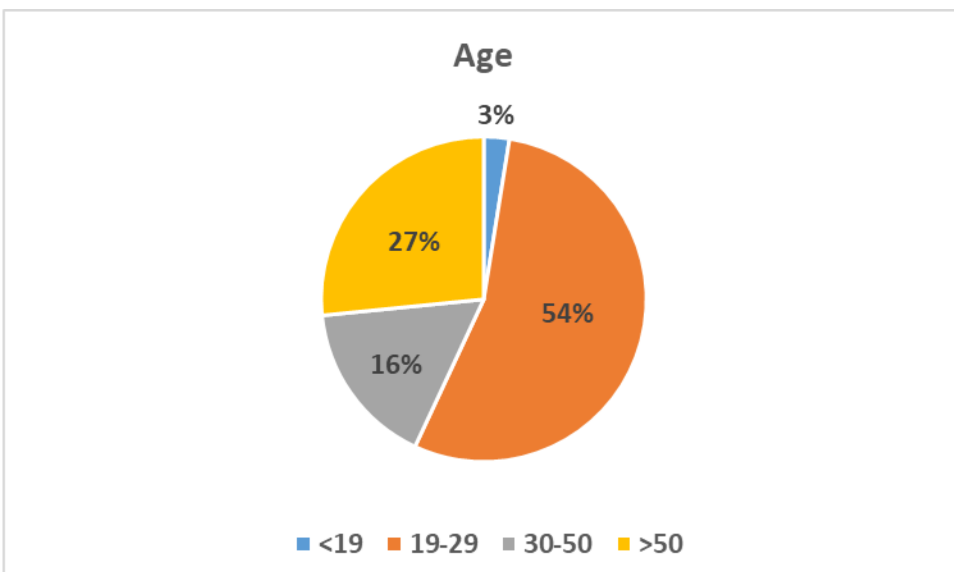

Table 3:percentage of answers received according to the age

- **Occupation:** For what concern occupation of respondents, results are shown in Table 4. Almost half of the sample (49%) is represented by students, while the other half is divided into other job categories, such as 16% of employees or teachers, 12% of freelance and finally 11% of managers or entrepreneurs.

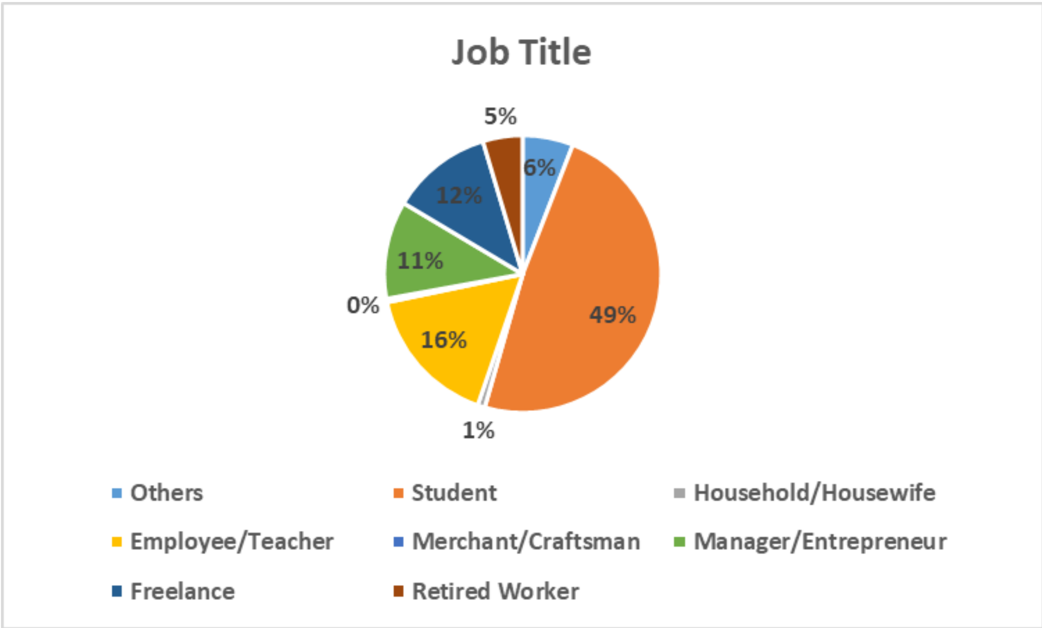

Table 4: percentage of answers received according to the job description

- **Income level:** If we look at the income level instead, considering the gross yearly salary, respondents are equally balanced, the higher the annual salary, the lower the percentages of respondents. The income levels taken under consideration are five, from less than 15000 Euro per year to more than 75000 Euro per year in the highest bucket.
  The major slice (43%) refers to people with the lowest income level bucket, and is composed mainly by students; then, we have in order 21% of respondents between 15000-30000, 13% ranging between 30000-45000, 11% between 45000-75000 and finally the last 12% with the highest income level, greater than 75000 Euro per year. Table 5 gives a graphical representation of sample divided by income level.

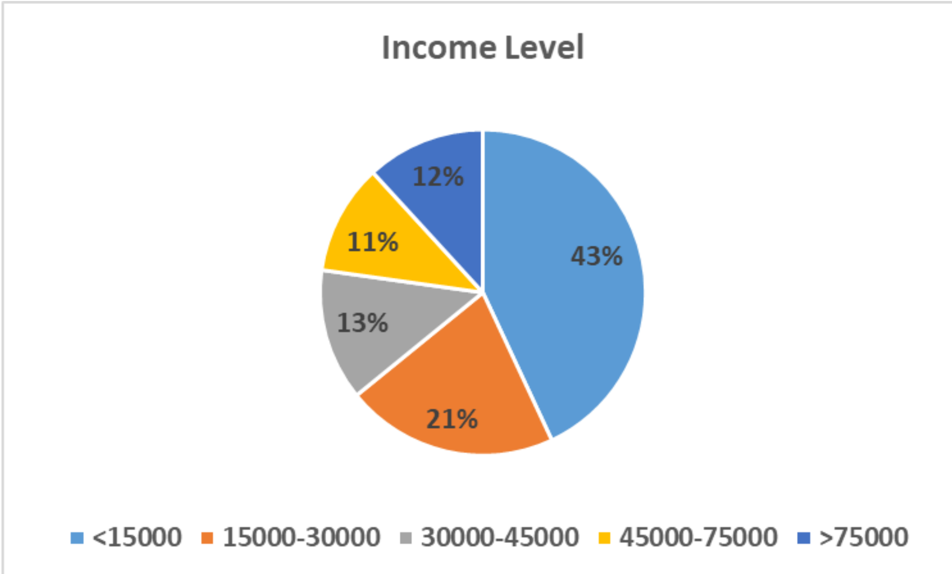

Table 5:percentage of answers received according to the income

- **Nationality:** Finally, according to the origin of respondents, we can see how the majority comes from Rome, while remaining part is distributed through all Italy. We have only 3 foreign respondents, highlighted in blue.

Aprilia	1	Milano	4
Arezzo	2	Napoli	4
Atene	2	Nicastro	1
Barcellona	1	Padova	2
Bari	3	Palermo	4
Bergamo	1	Parma	1
Bologna	3	Pavia	1
Catania	1	Perugia	1
Catanzaro	3	Pisa	1
Cesena	1	Rimini	1
Cosenza	1	Roma	175
Feltre	1	Siracusa	1
Firenze	1	Torino	3
Jesi	1	Trieste	1
La Spezia	2	Varese	1
Lanciano	1	Venezia	2
Livorno	4	Vimercate	1
Lodi	1	Viterbo	2
Messina	1		

Table 6:frequency of answers received according to the nationality

Dependent variables analysis:

Block 2:

In Block 2 (see par. 4.2.2.) the dependent variable I will study is **customer choice.** The Block is made of Q1, Q2 and Q3, which are Likert-scale type questions (from 1 = not at all, to 7 = at all). I will compare the answers (in terms of frequency for each scale value, from 1 to 7) given to the two types of questionnaires, NS and S.

How much do you agree to the following statements?

Q1 - I would book a room at the described hotel.

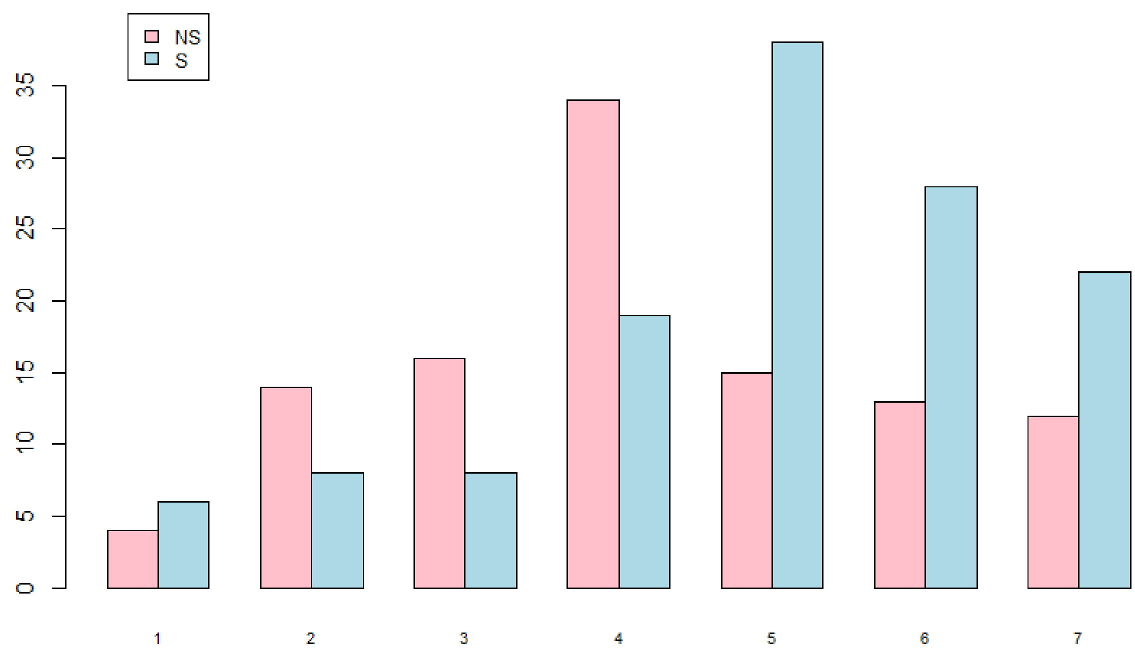

Table 7:frequency of responses to Q1 divided by Likert-scale value

Graphically we can say that on average the frequency of positive answers to sustainable (S) questionnaires is greater than non-sustainable (NS) questionnaires.

To evaluate if the difference between the means of the two populations is significant, we can apply the Wilcoxon Test:

H0: NS and S have the same Q1 tendencies

H1: NS and S have not the same Q1 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q1 by Questionario
W = 5036, p-value = 0.0001903
alternative hypothesis: true location shift is not equal to 0
```

The P-value is lower than 0.05, hence we can reject the NULL hypothesis that NS and S have the same Q1 tendencies.

Q2 - I would consider booking a room at the described hotel.

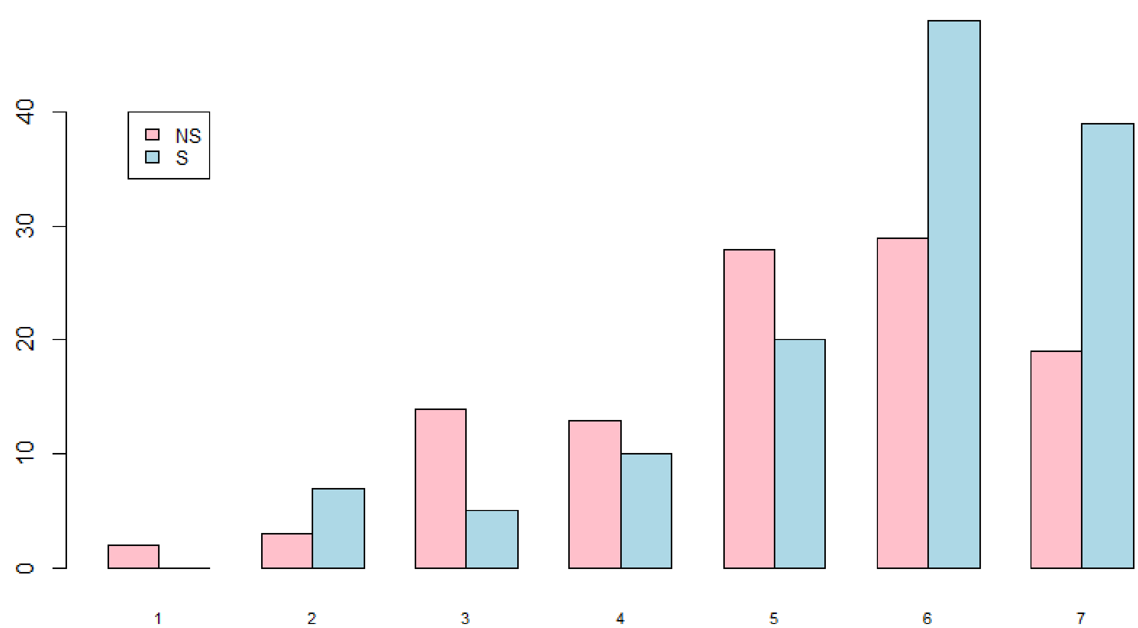

Table 8:frequency of responses to Q2 divided by Likert-scale value

Graphically we can say that on average the frequency of positive answers to sustainable (S) questionnaires is greater than non-sustainable (NS) questionnaires.

To evaluate if the difference between the means of the two populations is significant, we can apply the Wilcoxon Test:

H0: NS and S have the same Q2 tendencies

H1: NS and S have not the same Q2 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q2 by Questionario
W = 5255, p-value = 0.0007965
alternative hypothesis: true location shift is not equal to 0
```

The P-value is lower than 0.05, hence we can reject the NULL hypothesis that NS and S have the same Q2 tendencies.

Q3 - The probability for me to book a room at the described hotel is high.

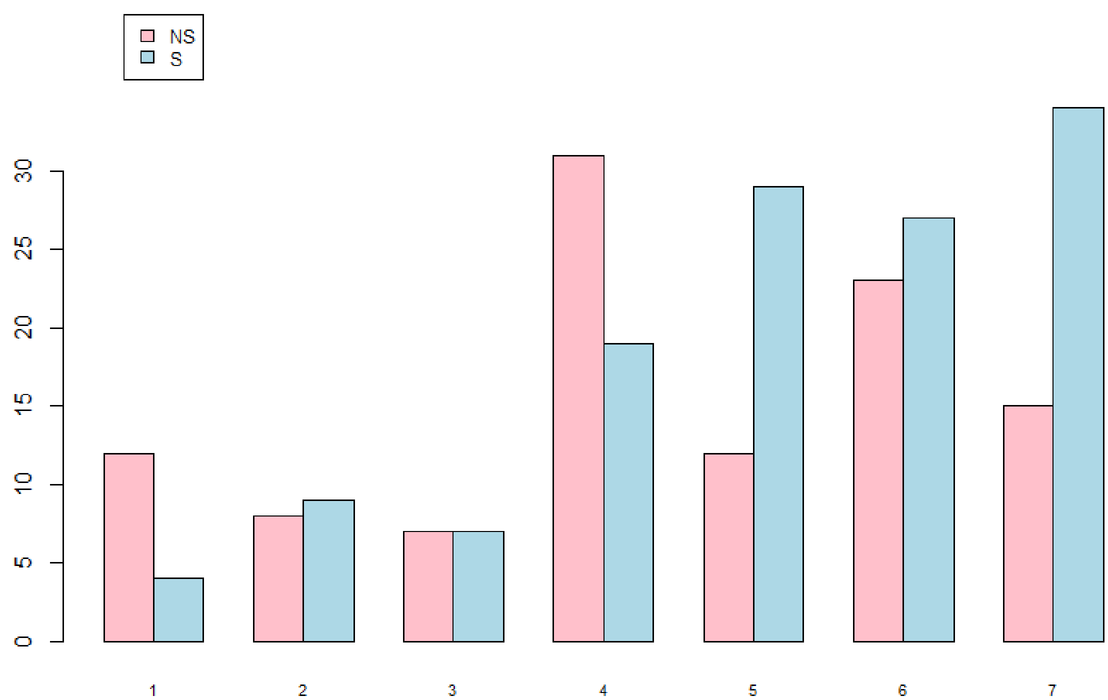

Table 9:frequency of responses to Q3 divided by Likert-scale value

Graphically we can say that on average the frequency of positive answers to sustainable (S) questionnaires is greater than non-sustainable (NS) questionnaires.
To evaluate if the difference between the means of the two populations is significant, we can apply the Wilcoxon Test:

H0: NS and S have the same Q3 tendencies

H1: NS and S have not the same Q3 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q3 by Questionario
W = 5318.5, p-value = 0.001436
alternative hypothesis: true location shift is not equal to 0
```

The P-value is lower than 0.05, hence we can reject the NULL hypothesis that NS and S have the same Q3 tendencies.

Observation: P-values are lower than 0.05 for each NS/S comparison. Hence, results show there is a significant difference between NS and S tendencies in all the three questions of the Block, with sustainable responses being significantly more positive than non-sustainable ones.
Since tendencies between NS and S questionnaires are significantly different (Wilcoxon Test) for "Hotel Choice" dependent variable, I will proceed by measuring this difference applying the logistic regression model in RStudio.

```
Call:
glm(formula = Questionario ~ rescale(x1_3), family = binomial(link = "logit"),
    data = newdata)

Deviance Residuals:
   Min      1Q  Median      3Q     Max
-1.287  -1.250   1.080   1.103   1.119

Coefficients:
              Estimate Std. Error z value Pr(>|z|)
(Intercept)    0.17772    0.13044   1.362    0.173
rescale(x1_3) -0.05652    0.26167  -0.216    0.829

(Dispersion parameter for binomial family taken to be 1)

    Null deviance: 326.69  on 236  degrees of freedom
Residual deviance: 326.64  on 235  degrees of freedom
AIC: 330.64

Number of Fisher Scoring iterations: 3

> invlogit(0.1825) #abbiamo la probabilità del 55% che provenga da NS se le prime tre risposte alle 3 domande sono uguali a
lla media.
[1] 0.5454988
```

If the answers to the first three questions Q1, Q2 and Q3 is equal to the mean of the questions, we have 55% of probability that the questionnaire is not sustainable (NS).

Step 2:

```
> 0.9558/4
[1] 0.23895
> sd(newdata$Q1)*2
[1] 3.302482
> mean(newdata$Q1)
[1] 4.586498
> fit.1.1 = glm(Questionario ~ rescale(x1_3) + rescale(Q18) , family = binomial(link="logit") , data = newdata)
> summary(fit.1.1)
```

At the mean value we add twice the standard deviation, so we move from the initial mean value to the maximum value of the Likert-scale (7) and we observe that the probability of the answer to come from sustainable (S) questionnaire increased by 24%.

Observation: NS and S don't have the same tendencies (Wilcoxon Test) and we saw how people with sustainable questionnaires are more likely to answer positively (logistic regression model). Hence, tourists seem to be influenced by social initiatives and sustainable variables when it comes to choose a hotel.

Block 3:

In Block 3 (see par. 4.2.2.) the dependent variable I will study is **willingness to pay**. The Block is made of three questions: Q4, Q5, Q6; the first is an open question, while the other two are Likert-scale type questions (from 1 = not at all, to 7 = at all).

I will compare the answers (in terms of frequency for each scale value, from 1 to 7) given to the two types of questionnaires, NS and S.

Q4 - Which is the maximum price you would pay for this hotel type?

(Euro)	NS	S
<80	4	4
80-100	33	27
101-120	16	10
121-140	29	43
141-160	19	31
>160	7	14

Table 10:frequency f responses to Q4

Q4 is conceived as an open question, so it would be meaningless to plot graphically all the single answers. Instead, I created a table reporting the frequency of answers collected in six price-range buckets and divided by type of questionnaires (NS and S). If we look at the results, we can see a higher frequency of responses, in absolute value, for a price greater than 120 Euro; but results need to be weighted for the higher number, in absolute value, of respondents to questionnaire "S". To evaluate if the difference between the means of the two populations is significant, we can apply the Wilcoxon Test:

H0: NS and S have the same Q4 tendencies

H1: NS and S have not the same Q4 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q4 by Questionario
W = 7513.5, p-value = 0.2942
alternative hypothesis: true location shift is not equal to 0
```

The P-value is greater than 0.05, hence we can accept the NULL hypothesis that NS and S have the same Q4 tendencies.

How much do you agree to the following statements?

Q5 - I believe that the price to pay is fair for the quality of the services offered.

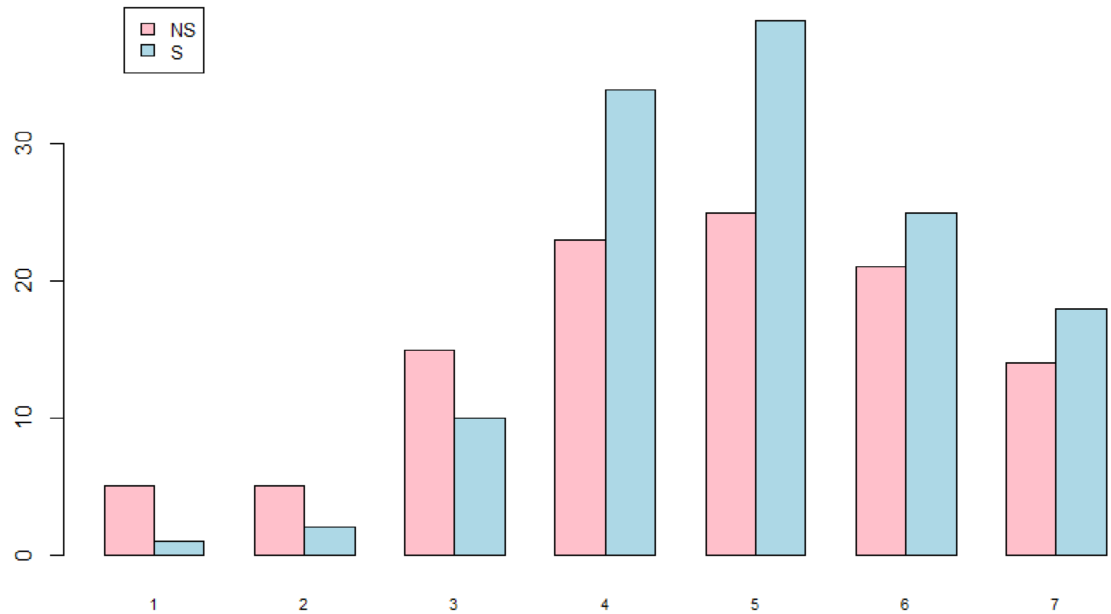

Table 11:frequency of responses to Q5 divided by Likert-scale value

Graphically we see that sustainable responses have higher frequency from number 4 to 7; both NS and S frequencies follow the same trend, and apparently, we could observe a significant gap in the answers of the two populations (without considering the difference of responses, in absolute value, between NS and S). However, to evaluate if the difference between the means of the two populations is significant, we must apply the Wilcoxon Test:

H0: NS and S have the same Q5 tendencies

H1: NS and S have not the same Q5 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q5 by Questionario
W = 6929.5, p-value = 0.9441
alternative hypothesis: true location shift is not equal to 0
```

The P-value is greater than 0.05, hence we can accept the NULL hypothesis that NS and S have the same Q5 tendencies.

Q6 - I would have been willing to pay a little premium for the described hotel.

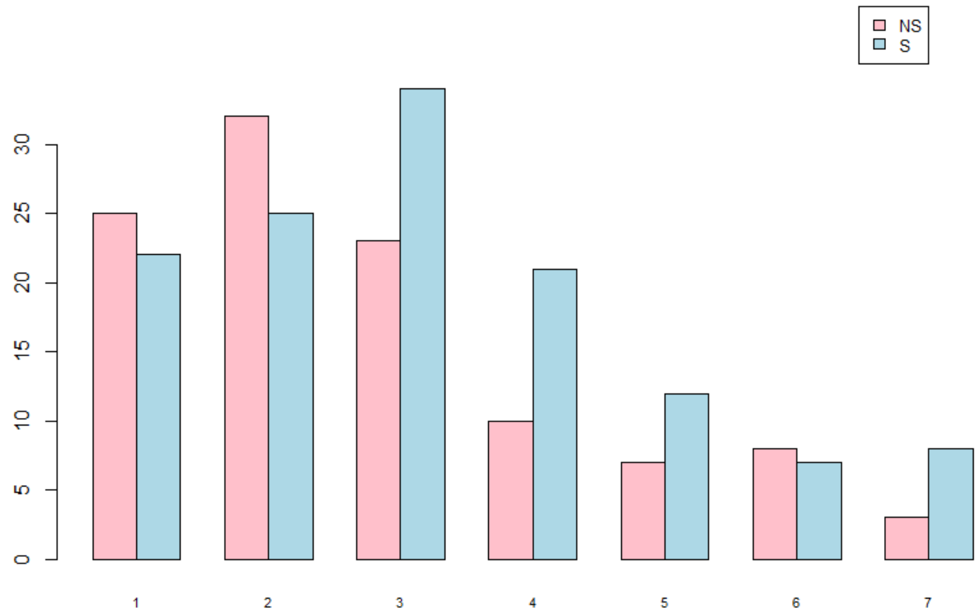

Table 12:frequency of responses to Q6 divided by Likert-scale value

Again, graphically it is possible to observe the difference in terms of frequency (in absolute value) between NS and S answers. Responses have similar trends, with a decreasing agreement to the statement in both questionnaire types. By applying the Wilcoxon Test we can evaluate if the difference between the means of the two populations is significant:

H0: NS and S have the same Q6 tendencies

H1: NS and S have not the same Q6 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q6 by Questionario
W = 6666, p-value = 0.5612
alternative hypothesis: true location shift is not equal to 0
```

The P-value is greater than 0.05, hence we can accept the NULL hypothesis that NS and S have the same Q6 tendencies.

Observation: results don't show a significant difference between the trends of the NS and S answers, that is confirmed by applying Wilcoxon Test. P-values are greater than 0.05 for each answer, hence we accepted the NULL hypothesis that the two populations show similar trends. In conclusion, we can state that tourists would not be willing to pay a premium price for sustainable hotels.

Block 4:

In Block 4 (see par. 4.2.2.) I will study the third dependent variable: guest satisfaction (or better, expected guest satisfaction). The Block is composed of four Likert-scale type questions (from 1 = not at all, to 7 = at all): Q7, Q8, Q9, Q10.

I will compare the answers (in terms of frequency for each scale value, from 1 to 7) of the two studied populations, and I will therefore apply the Wilcoxon Test in order to demonstrate whether graphic results are significant or not.

Let's imagine that finally you decide to stay at the described hotel.

Q7 - Do you expect to be fully satisfied once your stay at the described hotel ends?

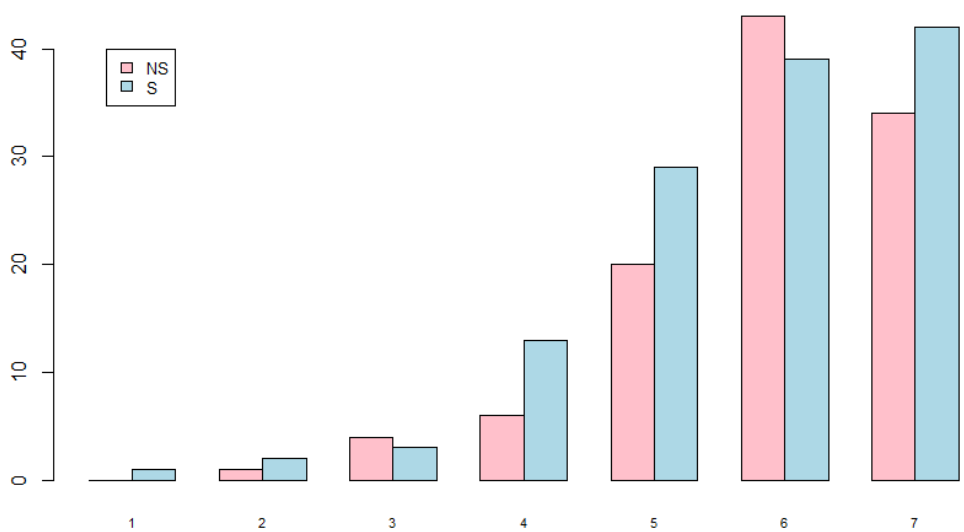

Table 13:frequency of responses to Q7 divided by Likert-scale value

From the graph we observe very similar trends, and on average, respondents to both questionnaires are expecting to be positively satisfied. In order to test if there is a significant difference between the means of the two populations we apply the Wilcoxon Test:

H0: NS and S have the same Q7 tendencies

H1: NS and S have not the same Q7 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q7 by Questionario
W = 7575, p-value = 0.2265
alternative hypothesis: true location shift is not equal to 0
```

The P-value is greater than 0.05, hence we can accept the NULL hypothesis that NS and S have the same Q7 tendencies.

Q8 - Would you suggest this type of accommodation to your relatives/friends?

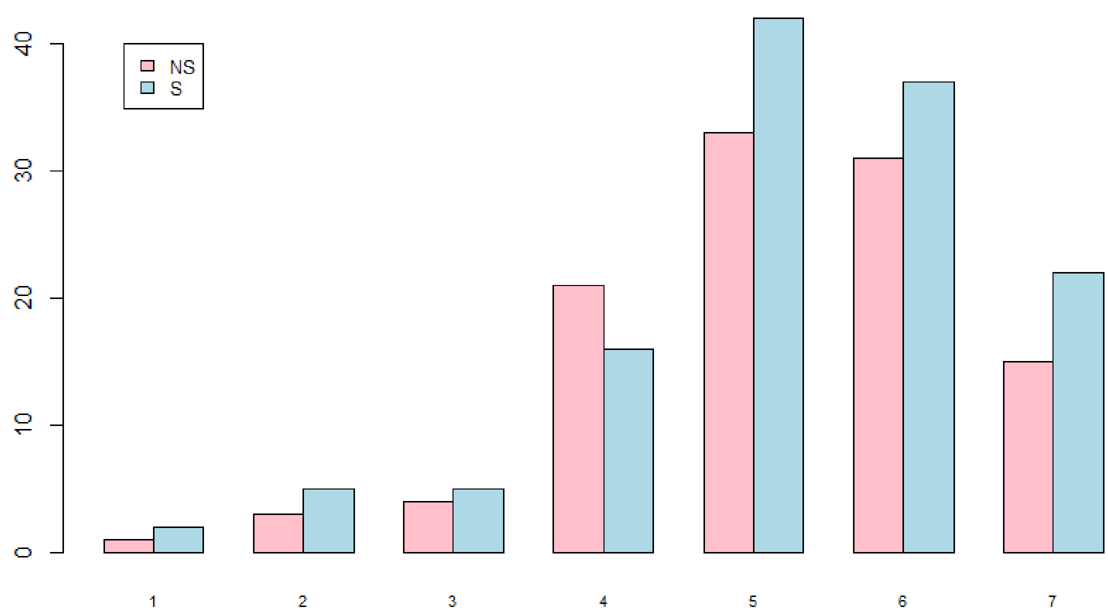

Table 14:frequency of responses to Q8 divided by Likert-scale value

Respondent of both questionnaires would suggest the accommodation to relatives and friends. Graphically we could say that on average sustainable answers are more shifted toward 7, but to test if this difference between the two trends is significant we apply, once again, the Wilcoxon Test:

H0: NS and S have the same Q8 tendencies

H1: NS and S have not the same Q8 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q8 by Questionario
W = 6496, p-value = 0.3562
alternative hypothesis: true location shift is not equal to 0
```

The P-value is greater than 0.05, hence we can accept the NULL hypothesis that NS and S have the same Q8 tendencies.

How much do you agree to the following statements?

Q9 - In the described hotel there are all the elements that usually make me more satisfied.

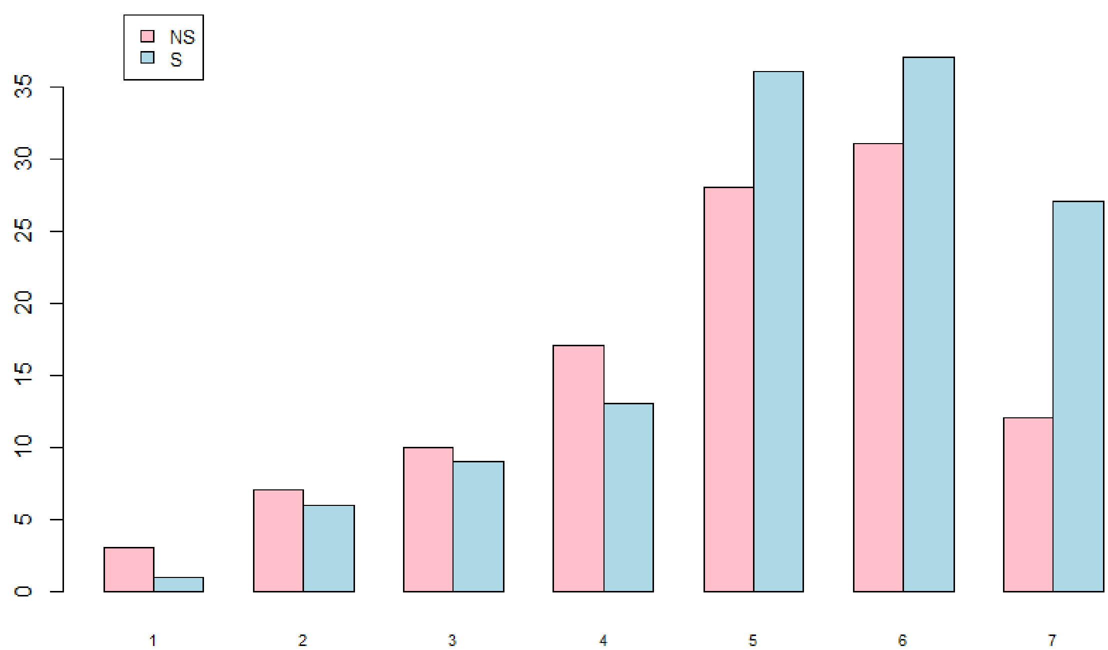

Table 15:frequency of responses to Q9 divided by Likert-scale value

From the answers, as shown in Chart 15, for more than half of respondents in the described hotels there are all the element that usually make them more satisfied. Graphically it seems that sustainable hotels are even more able to make guests satisfied; and in order to test the significance of the graphic difference we apply the Wilcoxon Test:

H0: NS and S have the same Q9 tendencies

H1: NS and S have not the same Q9 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q9 by Questionario
W = 7347, p-value = 0.4576
alternative hypothesis: true location shift is not equal to 0
```

The P-value is greater than 0.05, hence we can accept the NULL hypothesis that NS and S have the same Q9 tendencies.

Q10 - To be fully satisfied, the described hotel doesn't have some goods/services that I usually value more.

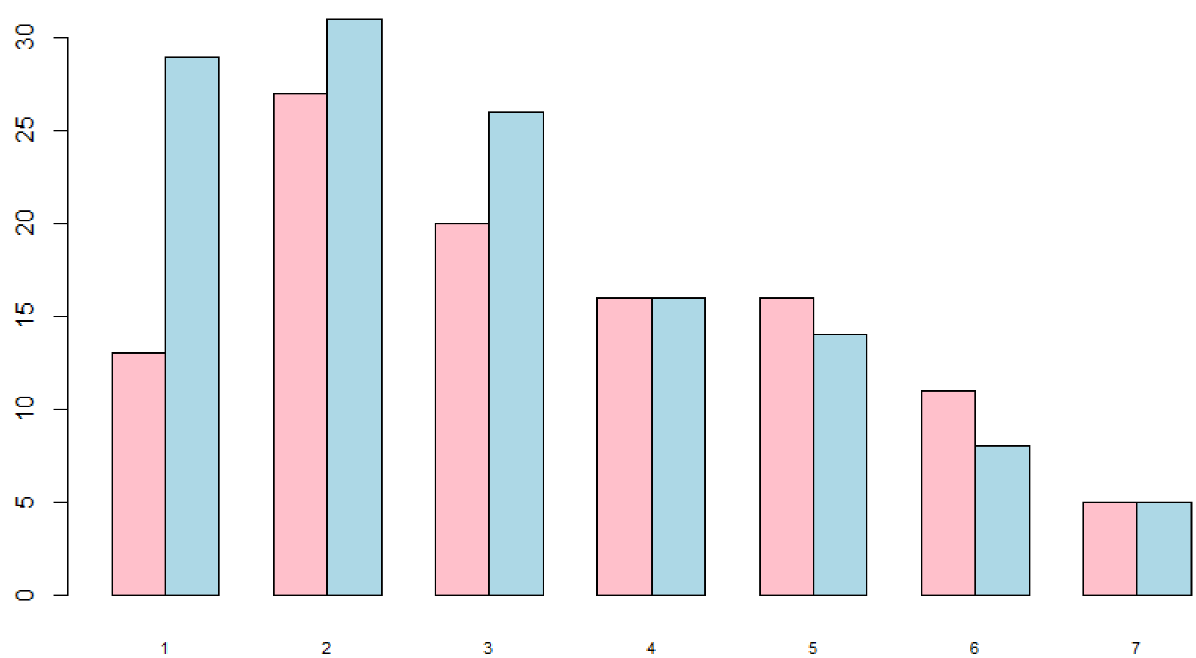

Table 16:frequency of responses to Q10 divided by Likert-scale value

Looking at the chart, on average we can say that both the hotels (S and NS) have all the services or goods that the guests usually value more. The trends of the two populations is similar, with a consistent difference only on number 1 scale-value. With the Wilcoxon test we are testing the significance of the NULL hypothesis: NS and S having the same tendencies (trends):

H0: NS and S have the same Q10 tendencies

H1: NS and S have not the same Q10 tendencies

```
        Wilcoxon rank sum test with continuity correction

data:  Q10 by Questionario
W = 7711.5, p-value = 0.1496
alternative hypothesis: true location shift is not equal to 0
```

The P-value is greater than 0.05, hence we can accept the NULL hypothesis that NS and S have the same Q10 tendencies.

Observation: results show little or no difference in the answers between NS and S questionnaires. All P-values are greater than 0.05. Hence, expected satisfaction (which is the third variable I study) seems not to be driven by social sustainability, and guests expect to be satisfied in the same way by staying in a sustainable accommodation or not.

Moderator variables analysis:

The only moderator variable that turns to be statistically significant is Q18 (Attitude toward pricing): "my decision depends on price". The moderator variable has significant impact when it is applied to the dependent variable "customer choice".

```
> invlogit(0.1903) #abbiamo la probabilità del 55% che provenga da NS se le prime tre risposte alle 3 domande e a Q18 sono uguali alla media.
[1] 0.5474319
> 0.9317/4 #quando passa dalla media (5) al valore massimo (7 che corrisponde a due volte la deviazione standard) la prob che provenga da S aumenta del 23% (sempre quando Q18 è uguale alla media)
[1] 0.232925
> mean(newdata$Q18)
[1] 5.637131
> 2*sd(newdata$Q18)
[1] 2.770282
> -0.7279/4 #quando passa dalla media (6) al valore massimo (7) della variabile Q18, abbiamo un effetto negativo cioè abbiamo una probabilità del -18% che provenga da S quando la scelta dipende dal prezzo (e con le risposte alle prime 3 variabili uguali alla media)
[1] -0.181975
```

If Q1, Q2, Q3 and Q18 are all equal to the mean value, we have 55% of probability that the questionnaire is not sustainable (NS).
If we move from the mean value to the maximum value (7) for Q1, Q2 and Q3, that is twice the standard deviation, the probability increases by 23% (always considering Q18 as the mean value).
Finally, if we move from the mean value to the maximum value (7) for Q1, Q2, Q3 and Q18 we can observe a negative effect; we have a -18% of probability that the questionnaire is sustainable (S) when the choice depends on price.
This means that not sustainable respondents are less price sensitive, while sustainable respondents instead, are more sensitive and their choice is positively influenced by pricing.

The other moderator variables don't have significant values, I will report an example.
For the moderator variable: corporate image, we expect Q11, Q12 and Q13 to have a good correlation.

```
> cor(newdata[,c(11:13)])
           Q11        Q12        Q13
Q11  1.0000000  0.8595603 -0.4610581
Q12  0.8595603  1.0000000 -0.5604409
Q13 -0.4610581 -0.5604409  1.0000000
```

As we can observe, Q11 is correlated only to Q12, but not with Q13. Hence results are not significant, and it is meaningless to test the effects of moderator variables on dependent variables.

In the following label I sum up the results derived from the Wilcoxon Test, showing how the only variable that has significant differences in the answer is customer choice.
In order to measure this difference, I proceeded with a logistic regression models as exposed previously in the chapter.

Question	**Associated Dependent Variable**	**Wilcoxon Test P-Value**	**P-Value significance <0.05**
Q1	Customer Choice	0.0001903	YES
Q2	Customer Choice	0.0007965	YES
Q3	Customer Choice	0.001436	YES
Q4	Willingness to pay	0.2942	NO
Q5	Willingness to pay	0.9441	NO
Q6	Willingness to pay	0.5612	NO
Q7	Expected Satisfaction	0.2265	NO
Q8	Expected Satisfaction	0.3562	NO
Q9	Expected Satisfaction	0.4576	NO
Q10	Expected Satisfaction	0.1496	NO

CONCLUSION

The aim of this work was to study if there is a relationship between three dependent variables (customer choice, guest satisfaction and willingness to pay) and social sustainability variables. From the research we could validate only one of the three dependent variables to be positively impacted by social sustainability.

In the last chapter we tested the significance of results, and it came out that only the hotel's **choice** is influenced by social initiatives; and the only "moderator" variable that seems to have impact on customer choice is pricing (the decision to book social sustainable hotel is less sensitive to price).

In general, we could say that socio-cultural sustainable variables are able to influence the choice of accommodation but not the expected guest satisfaction and the willingness to pay a premium; this could be caused by a reduced attention of respondents that provided increasingly inaccurate answers to the survey.

Results need to be interpreted based on assumptions and based on what emerged from questionnaires, and it is never easy.

In my opinion there are three main aspects that came out from the empirical study undertaken:

- **An ideological choice**. When tourists choose to stay at a sustainable accommodation do not expect to be more satisfied for the products and services provided than a similar but not sustainable accommodation, they would not be willing to pay a premium for a sustainable accommodation and they are very price sensitive, but at the same conditions, tourists would pick a sustainable accommodation. Hence it is an ideological choice. Although ideological, it is superficial and unconscious; an ideological choice is supposed to be driven by some values and beliefs able to influence the decision, moreover, if it is ideological we should put efforts and sacrifices to pursue it. Tourists would prefer a sustainable choice but would not put any efforts to support it.

- **An immature topic.** While environmental and economic issues are largely discussed in literature, for what concerns social sustainability the scenario seems different.

Commonly we hear from the media about issues related to environmental and economic disasters, it is more unusual to hear about social sustainable initiatives.

In my opinion, what emerged from results demonstrate how social sustainability topic is known only superficially, tourists know what we are talking about, but they do not probably know about the implications and value it brings to local communities and territory.

That could be a reason why respondents would pick a hotel involved in social initiatives but would not be willing to pay more or are not expecting to be more satisfied.

- **A doubtful investment**. Now, one of the main topics regards the managerial implication for hotels in investing in social initiatives. Given what we said before, should hoteliers pursue social sustainability? The answer is complex, and we need to consider multiple aspects.

  First, the economic point of view, which is key for every entrepreneur. Social sustainable initiatives are a cost for the property, which is therefore charged on room's rate, but if customers are not willing to pay a premium price for social sustainability it might be dangerous in terms of revenue, hence tourists would choose similar hotels with lower rates even if not supporting any social initiatives.

  Second, if we look at the next future, social sustainability is growing interests and importance; therefore, it is important not to completely avoid the topic for hoteliers. The aim should be to raise awareness about the topic and not to be unprepared, otherwise when people will start valuing social initiatives positively the hotel will suffer "sustainable" competition from similar accommodations.

  Finally, at the same price conditions, the choice of hotels is driven by social sustainability; hence, entrepreneurs might offer some low-cost social activities within the local communities with the following expected effects: differentiating from competitors and gaining more customers, raising awareness about the topic by practically offering some sustainable activities, supporting positively the community.

In conclusion, social sustainability is still poorly known, and people have a superficial view of the implications and effects it has. Hence, investing in this type of initiatives is risky; it might be convenient if activities are low-cost or if the aim is to increase awareness, otherwise it might not be profitable for managers to carry on any investment.

Undoubtfully social sustainability has a great positive impact on welfare, local communities and national identity/traditions, and I believe that in this phase it is necessary the participation of public institutions in order to develop awareness regarding the topic of social sustainability, with the purpose of making tourists more sensitive (and willing to pay a premium) about it.

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WEBSITE CITATION

https://www.hospitalitynet.org/opinion/4060804.html

https://www.accorhotels.group/commitment

APPENDIX

Block 1

Each questionnaire starts with a description of a hotel, there are two possible descriptions a questionnaire can start with that are similar. The beginning of each survey (the description of the hotel) is randomly distributed to part of the sample, hence a percentage of respondents will start answering about one kind of hotel, the left percentage about the other type of hotel.
The only difference between the two descriptions lies in the social initiatives undertaken by the hotels; all others independent variables are the same. Here the two possible descriptions:

Hotel <u>not involved</u> in sustainable activities.
"You have bought online an airplane ticket for summer vacation, you only miss to book a hotel. Clicking on a banner, the following scenario pops up:
***4-star** hotel of Marriott International hotel chain, located in a **strategic position** within the destination you were looking for. We are in low season and the **price** for a standard double room (23 m^2) is 134 Euro per night, while the price for the Suite (27 m^2) is 312 Euro per night.*
*From **online reviews** the hotel has a score of 4.8/5 and it offers many **quality services** such as Spa access, pool and restaurant in-loco. Rooms seem spacious and clean, with a modern design, prepared to the last detail.*
*Each room is furnished of fast **wi-fi connection**, minibar and comfortable mattress. Furthermore, being at the **higher floors**, they have astonishing **views**.*
*The **hotel's staff is reliable and available**. They are **responsive** to all your needs and necessities."*

Hotel <u>involved</u> in sustainable activities.
"You have bought online an airplane ticket for summer vacation, you only miss to book a hotel. Clicking on a banner, the following scenario pops up:
***4-star** hotel of Marriott International hotel chain, located in a **strategic position** within the destination you were looking for. We are in low season and the **price** for a standard double room (23 m^2) is 134 Euro per night, while the price for the Suite (27 m^2) is 312 Euro per night.*

*From **online reviews** the hotel has a score of 4.8/5 and it offers many **quality services** such as Spa access, pool and restaurant in-loco. Rooms seem spacious and clean, with a modern design, prepared to the last detail.*
*Each room is furnished of fast **wi-fi connection**, minibar and comfortable mattress. Furthermore, being at the **higher floors**, they have astonishing **views**.*
*The **hotel's staff is reliable and available**, as well as sensitive and prepared in suggesting you the main attractions of the destination. They are **responsive** to all your needs and necessities.*
*The hotel often opens the doors to **local cultural activities and exhibitions**; the "in-house" activities are backed up by tours "on the spot" to **explore traditional uses and habits**, and by letting you experience **local authenticity**.*
*The property is involved in **donations** to charity, either monetary or material (donations of second-hand furniture and unused food), they reinvest all profits made by eco-sustainable behaviors of guests and staff.*
*Most of furniture are certified "Fair - Trade", and the food proposed at the restaurant is km0 and it is supplied by **local producers**.*
*All the aforementioned initiatives are well **sponsored online** by the hotel.*"

Both questionnaires describe a scenario, and the only difference lies in the last part of the story, where in the second one the hotel is highly involved in social sustainable initiatives. In conclusion, all next questions will be the same, but answers will depend on the initial scenario.

Block 2

This section is made of 3 multiple choice questions aimed to examine the dependent variable: **customer choice**.
To the submitted questions, respondents are asked to express their agreement to the three statements, measured through a Likert scale type, from 1 to 7 (where 1 = Not at all and 7 = at all). The questions are:

How much do you agree to the following statements?
Q1. I would book a room at the described hotel.

Q2. I would consider booking a room at the described hotel.

Q3. The probability for me to book a room at the described hotel is high.

Block 3

The third block will address the second dependent variable that we want to examine: **the willingness to pay a premium**. Are tourists more prone to pay a premium for a hotel involved in social initiatives?

In order to gather evidence, respondents are asked to answer an open question and express their agreement to a couple of statements, the latter are measured through the Likert scale type (where 1 = Not at all and 7 = at all). The questions are:

Q4. Open question: which is the maximum price you would pay for this hotel type? (for one night, in Euro)

How much do you agree to the following statements?

Q5. I believe that the price to pay is fair for the quality of the services offered.

Q6. I would have been willing to pay a little premium for the described hotel.

Block 4

The last dependent variable we aim to examine within this block of questions is: **guest satisfaction**. Are tourists expected to be more satisfied at staying in a hotel involved in social initiatives?

Guest satisfaction will be analyzed through 4 multiple choice questions, this time as well measured through Likert scale type (where 1 = Not at all and 7 = at all). Questions are:

Let's imagine that finally you decide to stay at the described hotel.

Q7. Do you expect to be fully satisfied once your stay at the described hotel ends?

Q8. Would you suggest this type of accommodation to your relatives/friends?

How much do you agree to the following statements?

Q9. In the described hotel there are all the elements that usually make me more satisfied.
Q10. To be fully satisfied, the described hotel doesn't have some goods/services that I usually value more.

Block 5

Finally, the last two blocks of questions will be examining three moderator variables: corporate image, attitude toward travel/accommodation and socio-demographic variables. In block 5 we focus on the first two.
A moderator variable, by definition, "*changes the strength or direction of an effect between two variables x and y. In other words, it affects the relationship between the independent variable or predictor variable and a dependent variable or criterion variable. Moderating variables can be qualitative or quantitative*".
In order to analyze **corporate image** as moderating variable, respondents were asked to answer 4 multiple choice questions, measured by Likert scale type (where 1 = Not at all and 7 = at all); the questions are:
How much do you agree to the following statements?

Q11. The idea that the hotel is part of the renowned Marriott International chain has influenced my previous answers.
Q12. The idea that the hotel is part of the renowned Marriott International chain might have influenced my previous answers.
Q13. The idea that the hotel is part of the renowned Marriott International chain has not influenced my previous answers.
Q14. If the hotel wouldn't have been part of any renowned brand, I would have answered the same to the previous questions.

On the other hand, to check if **attitude toward travel/accommodation** could be considered a positive moderator variable, hence strengthening the relationship between dependent and independent variables, I submitted to the audience 1 open question and 3 multiple choice questions, measured by Likert scale type (where 1 = Not at all and 7 = at all).

Q15. Open question: how many travels do I take each year on average? (give a number).

How much do you agree to the following statements?

Q16. I do prefer to stay at a hotel.

Q17. I do prefer to stay at other types of accommodations (B&B, apartments etc...)

Q18. My decision depends on price.

Block 6

The last block aims to gather socio-demographic information, which is the last moderator variable. Hence respondents are asked to answer personal information in order to finish the survey.

The objective is to analyze whether socio-demographic variables could have an impact on the previous answers or not. For example, are male tourists more willing to pay a premium or not? Are female tourists more sensitive and satisfied with sustainable accommodation?

Therefore, the questions submitted are:

Q19. How old are you?

Q20. Gender

Q21. Where were you born? (city, nationality)

Q22. What is your job?

Q23. Which is your yearly gross income (in Euro)?

EXECUTIVE SUMMARY

With the increasing concern upon environment deterioration, economic crisis and human being inequalities, the idea of "sustainability" is more than a recent buzzword. The use of the word is certainly becoming more frequent, but its concept is still hardly known.

The term sustainability is commonly associated to the word "development" and implies a strategic growth that needs to be addressed at all levels.

Sustainable development is a hot topic lately, due not to commercial or ideological reasons, but it's gaining recognition because it helps us reversing the harmful trends that are increasingly impacting our lives.

Hence, sustainable development is no longer an optional choice, but it's something we must address to preserve our quality of life, nowadays triggered by global warming, high pollution levels, humankind inequalities, frequent economic crisis, overconsumption of natural resources and raw materials, loss of cultural identities, and so on.

Awareness about the topic is quickly growing, and furthermore, national and international institutions are consistently addressing the issue.

This work aims to deepen the concept of sustainable development, with a focus on the relationship between social sustainability and hospitality industry.

Tourism accounts for 10.4% of world GDP and international arrivals are expected to become 1.3 Billion by 2030, hence the importance of sustainable development is even more true for this big and fast-growing sector.

Sustainability has three macro-dimensions: economic, environmental and social, each addressing specific topics.

According to literature, many researches and studies have been conducted to relate tourists' behavior to environmental and economic sustainability, while little has done about its social dimension.

The objective of this study is to analyze whether there is a connection between social sustainability and tourists' choice, expected satisfaction and willingness to pay a premium for an accommodation. The question I will provide empirical answer to is the following:

How are the expected satisfaction, willingness to pay and choice of a hotel influenced by socio-cultural sustainability variables?

Before stepping into the empirical analysis, and core, of the research, it is necessary to briefly have a look through the main theoretical models and concepts applied. We will deepen the two fields of study upon which the work is based: tourist decision-making process (with a focus on the hospitality industry) and sustainable tourism (with a focus on social sustainability).

If we start from the assumption that tourists, in front of a purchase decision, would behave as a generic customer, we can therefore define consumers' (tourists') behaviour as "the process and activities people engage in when searching for, selecting, purchasing, using, evaluating, and disposing of products and services so as to satisfy their needs and desires" (George E. Belch, Michael A. Belch, 1998).

According to literature, we can highlight four macro-categories of factors that affect the aforementioned decision-making process: cultural factors (culture, sub-culture and social class), social factors (family, roles and status, reference groups), personal factors (age and lifecycle, occupancy, economic situation, lifestyle and personality) and psychological factors (motivation, perception, learning, attitude and beliefs).

Decision-making process and consumers' behavior have been of great interest for researchers, who developed models and theories to show how the process works. The main approaches to the topic are five, each bearing specific models/theories:

- Economic Man approach (Rational choice theory)
- Psychodynamic approach (Freudian theories)
- Behaviorist approach (John B. Watson experiment 1920, Ivan Pavlov with the classical conditioning and Burrhus Skinner with the operant conditioning)
- Cognitive approach (Nicosia model, Howard and Sheth model, Engel Kollat Blackwell Model, Theory of reasoned action, Theory of planned bheavior)
- Humanistic approach (Maslow's theory, Theory of trying and Goal Directed Behaviour)

Many scholars tryied to apply all these notions to address tourists specifically; among all theories, the traditional model used to explain tourist decision-making process is made of five stages: **A- Perception of the need of travel**: the acquisition process starts when the tourist acknowledges or identifies a need, and translates this need into motivation to buy a vacation (leisure, business education, medical care, visiting friends, religion, shopping). **B- Information search:** collection of information is a pivotal phase; tourists look for information not only before the travel itself, but also during and after it. **C- Setting and evaluating alternatives:** the path of identification and choice among alternatives could be configured as a sequential process of elimination. **D- Tourist decision of booking, purchase and consumption**: after a careful evaluation of all the alternatives, the tourist comes up with the most favourable solution able to satisfy the initial needs. **E- Evaluation of the experience and post-purchase behavior**: at this stage, the consumer evaluates the level of satisfaction received by the vacation, depending on the initial expectations.

If we narrow the funnel, within the tourist's decision-making process one of the main choices to take regards the accommoddation: making the wrong decision could negatively impact on tourists' overall satisfaction. Should I prefer an apartment or a hotel? Each individual will answer the question differently because he will have different initial needs.

According to literature the main factors of choice in the hospitality industry are: room price/rates, property amenities (Spa etc..), rooms' amenities and comfort (minibar etc..), location, design, socio-demographich factors (age etc..), reviews, standard/star rating.

Tourism industry grew consistently over the last decades, and it is expected to keep growing largely in the next future. Considering the impact that tourism has on global dynamics, we can easily wonder why sustainability is becoming one of the "hot" topics of this century.

According to UNWTO Tourism Highlights 2017, tourism industry accounts for the 10% of world global GDP in its direct, indirect and induced contribution; it provides one out of ten jobs and represents the 7% of world's exports.

The more cities, regions and countries develop their tourist destinations and attractions, the higher tourism produces significant impact on environment, pollution, local communities, consumption patterns and so on. As a consequence, sustainable planning, along with responsible management, is imperative for the industry to survive.

"Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Our Common Future, Brundtland report, 1987). This definition highlights the long-term perspective of sustainability, which is intrisically embedded in the meaning of the word.

The concept of sustainable development evolved through a series of institutional acts and events that took place over the last 30 years: from the Stockholm Conference of 1972 to the Johannesburg Earth Summit – II of 2002.

Sustainable tourism is a dynamic, not passive, process to the more sustainable tourism destination; it leans on three pillars, known as “triple bottom line”: economic dimension, environmental dimension, social dimension.

Economic dimension: tourism has the potential to redistribute wealth from reach to poor areas, and it bears both positive and negative aspects. However it often happens that the wealth generated in one area returns to the place of origin, it is canalized to the countries with an higher rate of economic development. This phenomena is named import leakage. Another negative impact could be the effect of increasing in the price of goods, services and value of the land due to competition between tourist demand and local demand. Furthermore, localities depending heavily on tourism are affected from exogenous factors, such as trends and tourist preferences, or seasonality and climate conditions.

Among the positive economic aspects it is possible to mention the benefits in terms of revenue (especially in foreign currency, desirable for developing countries) and taxes, the creation of jobs, improvements of transports and infrastructures, increasing of entrepreneurial opportunities, as well as increasing cultural, artistic and natural heritage of a country.

Environmental dimension: coming to the environmental aspect, the impact of tourism on local communities and residents has been defined as the “dark side” of tourist activities.

In fact, nature and tourism are interconnected phenomena and, under an economic perspective, it has been often favored short-term results, driven by an overuse of natural and cultural resources, at the expense of greater long-term social and natural costs. Negative effects of tourism on the environment are: extinction of flora and fana, pollution, increase in waste, deforestation, erosion of the territory, desertification, demages to coasts and natural habitats, “Eco-monsters”. The positive externalities that tourism can bear instead are: preservation of natural and cultural goods, incentives for artistic fairs and local handicraft, creation of natural reserves, sensitization, building modern infrastructure (roads, bridges etc..).

Social dimension: in relation to socio-cultural impacts on hosting community, on one side we have undoubted positive phenomena related to the tenor of life (creation of jobs, improvements of infrastructure) and cultural enrichment (encounter with other civilizations, consciousness of

natural and artistic heritage within the area); on the other side, we have some negative aspects, highlighted under two major conditions (M. Confalonieri, 2008): A- an increase of mass tourism. B- the presence of a community of a developing country.
The consequences are known (increase in crimanility, prostitution, disaffection toward habits and local traditions by residents who attempt to emulate tourist behaviors).
Hospitality companies could have a huge impact on the territory, they consume water, energy, food, paper, or generate air and noise pollution, or even impact on local communities, infrastructure and occupation of space. On the other hand, these companies could also bring benefits in terms of jobs, cultural exchange, renewals of old infrastructures and so on.
As a result, stakeholders show a progressive demand not only in terms of higher quality of hotel services and infrastructures in general, but also about further initiatives that companies take to protect the personality and cultural identity of destinations, along with their natural, human and patrimonial resources. Some areas of development of social sustainability within the hospitality industry are: training and development f personnel; donations (monetary or material); responsible investments, local suppliers and fair-trade; involvement of local communities; diversity management.

We saw consumers' behavior, and we saw sustainable tourism; we now want to see if there is a connection between the two; many have been the studies, and this are the most remarkable:
Nielsen Global Corporate Sustainability Report, 2015: brands with a demonstrated commitment to sustainability have grown more than 4% globally; 66% percent of consumers say they are willing to pay more for sustainable brands.
Accor Hotels and "Planet 21" project: there is a positive correlation between guest satisfaction and ISO 14001 certificated hotels; non-certified (ISO14001) properties are less likely to achieve Charter 21 levels; there is a stronger relationship between guest satisfaction and Charter 21 than ISO 14001; the higher the sustainability performance, the higher the hotel's profitability; ISO14001 seems to have a neutral impact on hotels' profits.
Xun Xu and Dogan Gursoy, 2015: tourists' satisfaction seems positively related to all dimensions of sustainability, hence economic, social and environmental inputs increase the level of satisfaction of travelers; willingness to pay a premium occurs for economically and environmentally sustainable variables, while this is not true for social sustainability; loyalty is

also influenced positively by economically and environmentally sustainable initiatives/products, while social sustainability not; satisfaction of guests has a strong link on customers' loyalty and retention; loyalty in turn strongly affect willingness to pay a premium.
Booking.com, 2018: 87% of travelers would be willing to take a sustainable vacation; 39% often already have sustainable vacation.
These studies show that there is a connection between tourists' decisions and sustainability issues.

Based on the theoretical frameworks analyzed so far, a research has been carried out. Therefore, an ad hoc questionnaire has been prepared in order to investigate how socio-cultural sustainability variables positively affect the way tourists choose a hotel. Taking back the question of thesis: **Does social sustainability influence customer's choice of hotel, expected satisfaction and willingness to pay?** Now, I will be able to provide an answer.
The data for this study, carried out through a questionnaire, have been collected in the month of January. The survey consisted of different blocks for a total of 23 questions, that have been administrated to a set of customers/tourists. The questionnaire has been created through Qualtrics platform, and distributed via e-mails, social media and WhatsApp.
It was structured as follow: there are two types of questionnaires that are submitted randomly to the audience and the two questionnaires only differ in the first part, which is made of a hotel's description. The two descriptions are: one of a Marriott Hotel involved in social sustainable initiatives, the other one of a Marriott Hotel not involved. The rest is composed of multiple-choice questions, aimed at deepening the three dependent variables under observation: **customer choice, guest satisfaction and willingness to pay a premium**. Respondents will be also asked to provide information about their attitudes and demographic information, which will be our moderator variables of the analysis.
The variables are measured by using a seven – point Likert – type item, from "1 = strongly disagree" to "7 = strongly agree". By definition the Likert scale is a "is a 5- or 7-point scale that offers a range of answer options — from one extreme attitude to another, like "extremely likely" to "not at all likely".
To sum up, I will report a synthesis with all the variables involved in the two questionnaires, where the independent variables are the one found in the initial description, the dependent

variables are what we are looking for and what we have to provide empirical evidence to, and the moderator variables are some characteristic that can amplify or not the effect of an answer.

Non-sustainable questionnaire:

Independent variables: star rating, location, price, online reviews, property/room amenities, Wi-fi connection, rooms' floor, rooms' view, quality of staff.

Dependent variables: customer choice of a hotel, guest satisfaction, willingness to pay a premium.

Moderator variables: corporate image, attitude toward travel, socio-demographic variables.

Sustainable questionnaire:

Independent variables: star rating, location, price, online reviews, property/room amenities, Wi-fi connection, rooms' floor, rooms' view, quality of staff, in-house local cultural activities, on the spot tours to make traditional experiences, donations, local prodiucts (km0), social activities well sposored online.

Dependent variables: customer choice of a hotel, guest satisfaction, willingness to pay a premium.

Moderator variables: corporate image, attitude toward travel, socio-demographic variables.

The aim is to analyze whether variables of social sustainability have an impact on: 1 - The choice of the hotel by tourists 2 - The expected satisfaction of guests and 3 - The willingness to pay a premium for the sustainable hotel.

After graphically showing the results of each answer in terms of frequency, I will test in RStudio my initial hypothesis following two steps: A- Applying the Wilcoxon Test. B- Using the logistic regression model.

Analysis of the sample: 43% of respondents had the "sustainable" questionnaire (S) while 36% the not sustainable one (NS) and 20% not answerd, so the valid questionnaires counted are 237. Female are 55% of the sample; while if we look at the age, the majority (54%) is between 19 and 29 years old; 49% of respondents were students while the remaining 51% is divided between the other job titles; consequently, the income level as well is in majority (43%) less than 15000 Euro per year; if we look at the nationality instead, only 3 respondents were not Italians.

Analysis of the results: if we look at the results, we see that after the Wilcoxon Test, the situation is the following:

Question	Associated Dependent Variable	Wilcoxon Test P-Value	P-Value significance <0.05
Q1	Customer Choice	0.0001903	YES
Q2	Customer Choice	0.0007965	YES
Q3	Customer Choice	0.001436	YES
Q4	Willingness to pay	0.2942	NO
Q5	Willingness to pay	0.9441	NO
Q6	Willingness to pay	0.5612	NO
Q7	Expected Satisfaction	0.2265	NO
Q8	Expected Satisfaction	0.3562	NO
Q9	Expected Satisfaction	0.4576	NO
Q10	Expected Satisfaction	0.1496	NO

The only variable that has P-Values constantly lower than 0.05, hence having a significant difference in the answers between NS and S questionnaires, is **cutomer choice,** while for guest satisfaction and willingness to pay there is not significant difference in the tendencies of the two questionnaire. Hence, we can say that tourists would choose a sustainable hotel if all other conditions are the same, but they don't expect to be more satisfied and are not willing to pay a bit more for it.

For the variable customer choice, because significant, I proceeded with the logistic regression model, showing that: if the answers to the first three questions Q1, Q2 and Q3 is equal to the mean of the questions, we have 55% of probability that the questionnaire is not sustainable (NS); at the mean value we add twice the standard deviation, so we move from the initial mean value to the maximum value of the Likert-scale (7) and we observe that the probability of the answer to come from sustainable (S) questionnaire increased by 24%.

Analysis of moderator variables: the only moderator variable that turns to be statistically significant is Q18 (<u>Attitude</u> toward pricing): "my decision depends on price". The moderator variable has significant impact when it is applied to the dependent variable "customer choice".

The aim of this work was to study if there is a relationship between three dependent variables (customer choice, guest satisfaction and willingness to pay) and social sustainability variables. From the research we could validate only one of the three dependent variables to be positively impacted by social sustainability.

We tested the significance of results, and it came out that only the hotel's **choice** is influenced by social initiatives; and the only "moderator" variable that seems to have impact on customer choice is pricing (the decision to book social sustainable hotel is less sensitive to price).

In general, we could say that socio-cultural sustainable variables are able to influence the choice of accommodation but not the expected guest satisfaction and the willingness to pay a premium; this could be caused by a reduced attention of respondents that provided increasingly inaccurate answers to the survey.

Results need to be interpreted based on assumptions and based on what emerged from questionnaires. In my opinion there are three main aspects that came out from the empirical study undertaken:

An ideological choice. When tourists choose to stay at a sustainable accommodation do not expect to be more satisfied for the products and services provided than a similar but not sustainable accommodation, they would not be willing to pay a premium for a sustainable accommodation and they are very price sensitive, but at the same conditions, tourists would pick a sustainable accommodation. Hence it is an ideological choice.

Although ideological, it is superficial and unconscious; an ideological choice is supposed to be driven by some values and beliefs able to influence the decision, moreover, if it is ideological we should put efforts and sacrifices to pursue it. Tourists would prefer a sustainable choice but would not put any efforts to support it.

An immature topic. While environmental and economic issues are largely discussed in literature, for what concerns social sustainability the scenario seems different.

Commonly we hear from the media about issues related to environmental and economic disasters, it is more unusual to hear about social sustainable initiatives.

In my opinion, what emerged from results demonstrate how social sustainability topic is known only superficially, tourists know what we are talking about, but they do not probably know about the implications and value it brings to local communities and territory.

That could be a reason why respondents would pick a hotel involved in social initiatives but would not be willing to pay more or are not expecting to be more satisfied.

A doubtful investment. Now, one of the main topics regards the managerial implication for hotels in investing in social initiatives. Given what we said before, should hoteliers pursue social sustainability? The answer is complex, and we need to consider multiple aspects.

First, the economic point of view, which is key for every entrepreneur. Social sustainable initiatives are a cost for the property, which is therefore charged on room's rate, but if customers are not willing to pay a premium price for social sustainability it might be dangerous in terms of revenue, hence tourists would choose similar hotels with lower rates even if not supporting any social initiatives.

Second, if we look at the next future, social sustainability is growing interests and importance; therefore, it is important not to completely avoid the topic for hoteliers. The aim should be to raise awareness about the topic and not to be unprepared, otherwise when people will start valuing social initiatives positively the hotel will suffer "sustainable" competition from similar accommodations.

Finally, at the same price conditions, the choice of hotels is driven by social sustainability; hence, entrepreneurs might offer some low-cost social activities within the local communities with the following expected effects: differentiating from competitors and gaining more customers, raising awareness about the topic by practically offering some sustainable activities, supporting positively the community.

In conclusion, social sustainability is still poorly known, and people have a superficial view of the implications and effects it has. Hence, investing in this type of initiatives is risky; it might be convenient if activities are low-cost or if the aim is to increase awareness, otherwise it might not be profitable for managers to carry on any investment.

Undoubtfully social sustainability has a great positive impact on welfare, local communities and national identity/traditions, and I believe that in this phase it is necessary the participation of public institutions in order to develop awareness regarding the topic of social sustainability, with the purpose of making tourists more sensitive (and willing to pay a premium) about it.