Human capital and tourism competitiveness: an analysis essay, Boutaleb, O.\textsuperscript{1} Gavkalova, N.\textsuperscript{2}

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\textbf{Summary:}

The aim of this paper is to analyze the link between human capital and competitiveness in the tourism industry. Human capital has long been, since the founding works of Schultz and Becker, at the center of debates on its role in the competitiveness of companies as well as of nations. How is this relationship between human capital and service industries, in this case tourism, argued?

This is the central questioning of the problem that we have tried to analyse. The hypothesis of this work is implicit: countries that do not improve the quality of training of their human resources, cannot aspire to general economic performance and to be among the best at the international level in the field of tourism in particular.

As this is an analytical essay, we have favored an analysis methodology, essentially hypothetico-deductive to establish the preponderant role of human capital in the competitive advantage in tourism by resorting on the theoretical level to a review of the concepts and theories of human capital and tourism competitiveness and on the empirical level to the analysis of the model of evaluation of the competitiveness of the World Economic Forum to find the correlation between the rankings in the tourism competitiveness index and the human capital index.

\textbf{Keywords:} Tourism, Human Capital, Intangible assets, Competitiveness
Résumé :

Cet article a pour objet l'analyser du lien entre le capital humain et la compétitivité dans l'industrie du tourisme. Le capital humain est depuis longtemps, depuis les travaux fondateurs de Schultz et Becker, au centre des débats sur son rôle dans la compétitivité des entreprises comme des nations. Comment cette relation entre le capital humain et les industries de services, en l'occurrence le tourisme, est-elle argumentée ?

Telle est l'interrogation centrale de la problématique que nous avons tenté d'investiguer. L'hypothèse de ce travail est implicite : les pays qui n'améliorent pas la qualité de la formation de leurs ressources humaines et ne développent pas leur capital humain, ne peuvent aspirer à la performance économique générale et à être parmi les meilleurs au niveau international dans le domaine du tourisme en particulier.

S'agissant d'un essai d'analyse, nous avons privilégié une méthodologie d'analyse, d'essence hypothético déductive pour établir l'argumentaire démonstratif du rôle prépondérant du capital humain dans l'avantage concurrentiel dans le tourisme en recourant sur le plan théorique très succinctement à une revue des concepts et théories du capital humain et de la compétitivité touristique et sur le plan empirique à l'analyse du modèle d'évaluation de la compétitivité du World Economique Forum pour relever la corrélation entre les classements dans l'index de compétitivité touristique et l'index du capital humain.

Mots clés : Tourisme, capital humain, actifs incorporels, compétitivité
Introduction:

The aim of this contribution is to analyze the link between human capital and competitiveness in the tourism industry. We have privileged this sector of activity, by the fact that it is a sector whose activity is based on human resources more than other sectors, consequently the role of human capital is undoubtedly much more pronounced in relation to other fields of activity.

Tourism competitiveness is recognized in its literature as a crucial success factor for touristic destinations, especially for developing countries where tourism is considered by many to be an engine of economic growth, job creation, and foreign exchange earnings (Dupont, 2012).

Today, the globalization of trade, technological innovations and the reduction of distances have led to a real "obsession" with competitiveness in terms of tourism (Krugman, 1994).

Understanding the competitiveness of countries in tourism is a major consideration for policy makers and a major challenge for professionals, who provide guidance and information that help in the process of decision making. (Stacey, 2015).

Human capital has long been, since the founding works of Schultz and Becker, at the center of debates on its role in the competitiveness of companies as well as of nations. How is this relationship between human capital and service industries, in this case tourism, argued?

This is the central questioning of the problem that we have tried to analyse. The hypothesis of this work is implicit: countries that do not improve the quality of training of their human resources, cannot aspire to general economic performance and to be among the best at the international level in the field of tourism in particular.

As this is an analytical essay, we have favored an analysis methodology, essentially hypothetico-deductive on the basis of existing data, (being a general analytical essay, we have not developed a specific model) to establish the role of human capital in the competitive advantage in tourism.

This analysis methodology is reflected in the plan of the article which we have structured in three parts as follow, respecting the template of the review.

1°. **Theoretical framework**: Where we have synthetically approached successively the concepts and theories of human capital in a first point, the concepts and theories of competitiveness in a second point and Human capital and competitive advantage in tourism in a third point.

2°. **Analysis model**: **Measuring tourism competitiveness**: Where we have approached in this empirical part the approach of the measurement of the tourism competitiveness of the World Economic Forum, considered as the most complete and the most exhaustive even if it is the object of rather severe criticisms in particular on the methodology used to measure. And where we have, as an illustrative example, addressed in a second point the Ranking of some countries we have chosen for this illustration, Germany, the USA, Switzerland, and New Zealand on the one hand and the countries of the central Maghreb on another side, in the Global human capital index and T&T Competitiveness Index, to clearly show the existing relationship between human capital and tourism competitiveness.
3°. **Results and discussion:** Where we have learned the lessons from this analysis of the link between human capital and tourism competitiveness

We will conclude on the need for training and the accumulation of human capital to develop the competitiveness of tourism.

1. **Theoretical framework**

1.1. **Human capital: concept and theory**

Although the authorship of the concept of human capital is attributed to the American economists, Gary Becker, Theodore Schultz and Jacob Mincer, who introduced and developed it in the 1950s and 1960s, it should be mentioned that it is Adam Smith, who in 1776, argued that capital does not just consist of machines and real estate, but also of “the acquired and useful abilities of all the inhabitants or members of the society.” (Smith, 1776)

1.1.1. **Definition**

Many definitions have been given to the concept of human capital. We can quote some definitions. Human capital is generally defined as "the set of skills, talents, qualifications, experiences accumulated by an individual and which partly determine his ability to work or produce for himself or for others" (Genereux, 2000).

In the Oxford English Dictionary human capital is defined as “the skills the labour force possesses and is regarded as a resource or asset.” It encompasses the notion that there are investments in people (e.g., education, training, health) and that these investments increase an individual’s productivity.

Théodore W. Schultz (1961);"Human capital is an intangible good that can advance or sustain productivity, innovation and employability."

Paul Samuelson and W. D. Nordhaus (2000) consider that it constitutes the "stock of technical knowledge and qualifications characterizing the workforce of a nation and resulting from an investment in education and lifelong learning".

Guillemin H. and Moule M (1993), based on Becker’s work, define human capital as follows: "Human capital is made up of all the creative, productive capacities of the worker, capacities taken in a broad sense since they include its technical know-how, its experience, its general knowledge ... Human capital is therefore considered as a stock that should be built, expand, use, grow. This one with the particularity compared to a normal capital to be consubstantial of the individual and therefore not salable as stock ».

And according to the OECD (1998) definition, human capital would encompass "the body of knowledge, skills, competences and individual characteristics that facilitate the creation of personal, social and economic well-being ».

Fris K. Pil and Carrie Leana (2009) define Human capital as an individual’s cumulative abilities, knowledge and skills developed through formal and informal education and experience. Human
capital can provide direct benefits in the form of superior performance, productivity and career advancement. Human capital refers to the collective knowledge, skills, and abilities of the individuals working in an organization.

As we can see, the literature to date provides a wide range of human capital definitions, concerning both economic and managerial perspectives. In these definitions there is a clear emphasis on human capital as the knowledge, skills, and abilities of individuals. Despite the proliferation of human capital definitions in the literature, a number of key elements seem to be common, encompassing knowledge, experience, trained skills, endowed abilities, attitudes and behavior.

As can be seen, many definitions have given the concept of human capital with more or less significance. Human capital is therefore generally identified with formal education, although aspects related to education are also sometimes introduced, work experience and even with the health conditions of individuals. Summarizing, we can say that the concept of human capital designates the quantity of useful and precious knowledge accumulated by individuals in the education and training process. It includes innate abilities and talents, as well as acquired education and skills. Thus, in this concept, we can differentiate innate human capital and acquired human capital, the former would be formed by the physical and intellectual capacities of individuals and the latter by formal and informal education.

1.1.2. Human capital Theory

The theory of human capital is the work of many economists including the economist Gary Becker (1964) who is considered the founder, even if it is the American economist Theodore Schultz (1961) who expresses it for the first time in 1961 in these terms: "While it appears obvious that individuals acquire useful know-how and knowledge, it is not so obvious that these know-how and knowledge constitute a form of capital [and] that substantial part of the proceeds of a deliberate investment ». But it is from 1965, that Gary Becker (1964) deepens the concept and vulgarizes it, obtaining in 1992 the Nobel prize of economy for its development of the theory of the human capital. Other authors, and not a few, have contributed to this theory of human capital, such as Paul Romer (1986) and in particular Robert Lucas (1988).

The theoretical analysis that underlies the notion of human capital provides elements for understanding the mechanisms of growth and development. Theories of human capital are also the subject of applications (and reinterpretations) in the field of vocational training, and more broadly of human resources management. All of this research evaluates the impact of education and training on economic growth and development.

Investment in human capital is at the heart of the strategies implemented by many countries to promote economic prosperity, employment and social cohesion. Individuals, organizations and nations are increasingly aware that a high level of knowledge and skills is essential for their safety and success.
The agreement on these principles has raised new political and social expectations for achieving ambitious economic and social goals through increased investment in human capital. It is now accepted that the level of development of a country is closely related to its level of education to the point of even depending on it. Education is an efficiency factor that raises the productivity of workers and in this way helps to increase production. Education is thus associated with other traditional factors (capital and labour) to explain economic performance and underperformance.

Various studies have tried to test and quantify the impact of education on economic growth.
- The overall impact of education on growth. Theodore Schultz, by its rate of return method, also came to the same conclusion that education contributes a good deal to American growth.
- The indirect effects of education on economic growth revolve around two essential points: on the one hand they are manifested by positive externalities that education generates and on the other hand the link between education and other types of human resources, namely: health, nutrition, poverty, fertility.

Human capital can be acquired (especially through education), preserved and developed (through continuing education and / or attention to the health of the individual under its health capital). Similarly, he must be able to produce a profit (the income received when the skills are made available (Jarousse, 1991). The inclusion of human capital in the economic analysis has thus been an important step forward. The accumulation of human capital is an essential factor of economic growth: the diffusion of knowledge allows for increasing returns and generates positive externalities.

As a result, it is a central concept of economic development, the economics of education, and more broadly the Knowledge Economics and the theory of knowledge based economy (knowledge capital). Despite on-going debates, the literature review reveals and reinforces the dialectical link between human capital, formation, training, and organizational performance.

**Figure 1. The key relations in human capital theory and the assumptions underlying these relationships**

![Diagram](source: Swanson & Holton (2001: 110))
As described by some authors (Marimuthu et al, 2009), this diagram represents three relationships:

- Relationship 1 represents the concept of production functions as applied to education and training. The key assumption underlying this relationship is that investment in education and training results in increased learning.
- Relationship 2 represents the human capital relationship between learning and increased productivity. The key assumption underlying this relation is that increased learning does, in fact, result in increased productivity.
- Relationship 3 represents the human capital relationship between increased productivity and increased wages and business earnings. The key assumption underlying this relationship is that greater productivity does, in fact, result in higher wages for individuals and earnings for businesses. As per conclusion, human capital does contribute to the organizational advantages and profits.

Although human capital theory originally was developed as a contribution to theories on economic growth, a number of organization theorists have used human capital principles to explain how firms can create competitive advantage through developing individuals’ human capital (Garavan and al., 2001)

1.2. The concept of competitiveness and tourism competitiveness

Before seeing what tourism competitiveness represents, let's first see how the competitiveness concept is defined.

1.2.1. The concept of competitiveness

The concept of competitiveness is variously interpreted and defined in the economic literature. It therefore has multiple and very different meanings. (Marniess and Filipiak, 2003, p. 43).

The notion of competitiveness also involves competition. Thus, to be competitive is "to be able to face in competitive conditions competition in one area of economic and social life" (Cohen, 2001, p. 65). Competitiveness is therefore not an exclusive concept in the economic field; although this remains its usual field of application.

The notion of competitiveness applies primarily to enterprises, even if its use tends to overflow it. Indeed, if one can question the competitiveness of a company, it is also possible to question that of an industrial branch or the economy of a nation, etc. (Mainguy, 1998, p.36).

In any case, everyone agrees that competitiveness is the results of a struggle in a competitive market to ensure not only survival but also enterprise development. Competition is at the center of business success or failure. It sanctions their activities as it enhances their prosperity. (Porter, 1988).

At the microeconomic level, competitiveness is defined simply as: "the capacity of a production unit (firm, national industry, etc.) to monopolize, in a profitable and sustainable manner, a significant market share (Cockburn, 1998). Competitiveness is also defined as the ability of the
firm to design, produce and / or market products superior to those offered by competitors, taking into account price and non-price qualities (D’Cruz and Rugman, 1992). Thus defined, competitiveness reflects a firm’s ability to reduce its production costs relative to its competitors.

It is therefore the capacity of a production unit (firm, national industry, etc.) to have a significant market share, generally measured by the advantage of companies over their competitors in national or international markets. International.

That being said, to be competitive, a company must offer better prices or better quality products (or a better service) than its competitors, and for that, it must imperatively improve its performance and its position in the market "(Cockburn and Sigge, 2006).

At the macroeconomic level (national economy), among the most widespread definitions, the OECD defines competitiveness as "the latitude a country has, operating under free and fair market conditions, to produce goods and services that meet international market standards, while simultaneously maintaining and increasing the real incomes of its inhabitants in the long term." (Walter, 1995).

Thus defines, competitiveness would reflect the good performance of one economy over others, where a good performance can mean economic growth, export success and better socioeconomic status of the population.

Another definition is: "A country is competitive if it maintains a growth rate of real income equal to that of its trading partners in a context of free trade and balanced trade in the long term" (Markusen, 1992).

A competitive society is a society that actively identifies and manages all facets of competitiveness, from infrastructure to education, without necessarily being synonymous with economic efficiency at all costs and in all sectors. Thus, competitiveness is influenced by social, human, technical, financial and institutional factors, as well as traditional economic indicators. These elements constitute the general framework for examining competitiveness.

1.2.2. The concept of tourism competitiveness

There is no generally accepted definition of tourism competitiveness, simply because visitors choose destinations for a variety of complex reasons: financial, personal, cultural, emotional or psychological (Dupont, 2012).

- First, the competitiveness of a destination is strongly influenced by the geographic location of the country in relation to the main potential or actual source markets.
- Second, countries compete on customer segments and not on whole populations. In this sense, market share becomes the most effective measure for assessing the competitive performance of destinations.
- Third, tourism competitiveness is a complicated concept to grasp because there are countries which are already considered on the market as very powerful calling products or
flagship products while others are in a lower category. This dichotomy has implications for the visitor decision-making process.

- Fourth, competitiveness should not be confused with attractiveness. Attractiveness is a prerequisite for competitiveness. A destination can be highly attractive, as are many superb sites, but supply factors can (weak air links, insufficient supply of rooms, etc.) reduce its competitiveness on the market.

Competitiveness in terms of tourism thus refers to several different aspects, namely the position of a given country as a destination vis-à-vis its competitors, the questions of price and cost of the stay for the visitor, productivity and profitability within the sector, without forgetting the sector’s ability to innovate and renew its products and services, by promoting quality, which must be at least as good as that of competitors' offer the most serious.

That being the case, we can retain some definitions: "Tourism competitiveness therefore designates the capacity of a destination to compete effectively and profitably on the tourism market and results from its ability to preserve the quality of its physical, social, cultural and environmental resources while remaining competitive in the market." (Dupont, 2012)

The definition of the OECD (2013, p.10). “Tourism competitiveness for a destination is about the ability of the place to optimize its attractiveness for residents and non-residents, to deliver quality, innovative, and attractive (e.g. providing good value for money) tourism services to consumers and to gain market shares on the domestic and global market places, while ensuring that the available resources supporting tourism are used efficiently and in a sustainable way.”

This definition includes the essential components of a destination's competitiveness (tourism governance, product development, quality of tourist services, price competitiveness, accessibility, destination branding strategy, natural and cultural resources, human resource development) then proposes a list of indicators which will make it possible to measure “the results and impacts of tourism, the capacity of a destination to offer competitive and quality tourist services, the attractiveness of a destination, the measures taken by the public authorities and economic opportunities”.

The concept of tourism competitiveness is therefore a relative, multidimensional and complex concept, determined by economic, social, political, ecological and cultural variables. These variables can be quantitative such as concerning tourism, number of visitors, market share, tourism expenditure, jobs, added value generated by the tourism industry, or qualitative variables such as the richness of culture and heritage, quality of tourist services, etc. The complexity of the concept of competitiveness becomes evident when one seeks to define and measure it.

1.2.3. Competitiveness theories: the value of intangible assets

In an open competitive context induced by globalization, the prosperous tourism companies both at national and international level, base their competitiveness in a capacity of innovation based on the accumulation of resources, mainly intangible assets and capacities hardly reproducible by its competitors.
This approach to resources and capacities does not neglect the country's advantages (associated with endowments in natural resources and infrastructure, the strength of domestic demand, the potential of the auxiliary industry, an appropriate location and government support), nor the benefits sector (linked to a strong rivalry between installed competitors, threat of alternative tourism products and bargaining power of suppliers and customers).

Thus, we will briefly discuss the two differentiated approaches that show the strategic importance of human capital in achieving long-term sustainable competitive advantages. These are Porter's (1990) competitiveness model and its diamond, which allows us to analyze why a nation succeeds in a particular sector; and resource and capacity theory that help determine what resources and capacities can be built up as keys to the competitiveness of tourism businesses.

1.2.3.1. Porter's competitiveness model

It is probably Porter in 1990 who will give the debate on competitiveness a new dimension by updating Ricardo’s theory of comparative advantages and by extending the concept of competitiveness to Nations: “A nation's competitiveness depends on the capacity of its industry to innovate and upgrade” (Porter, 1990, p.73). Despite the attraction of MNCs in global competition in the 1980s and 90s, Porter (1990) considers that Nations are not less but more important because they are at the origin of the creation and inclusion of knowledge in productive systems. Differences in national, cultural values, economic structures, institutions and history all contribute to economic success.

Regarding tourism competitiveness, the key points of the competitive advantages of the destinations (Porter diamond) can be summarized as follows: (Achaba and Bendou, 2017).

![The Porter diamond](source: Achaba & Bendou (2017))
1°. The factor conditions. Refers to the holding of natural, cultural or artificial factor endowments (natural attractions, cultural and historical resources, accommodation infrastructure, NTI transport, etc., human resources, factor prices, production efficiency, etc.) strong and necessary to competition in the tourism sector and without which there can be no tourist activity.

2°. The conditions of the request. A major element and important determinant of competitive advantage, the conditions of demand refer for a destination to several elements including mainly, the size of the local market, the structure and diversity of the market, the position on rapidly growing markets, the strengthening the tourism culture of consumers and host companies, protection of the tourist-consumer, etc. (Cooper and al. 2009).

3°. The associated and involved activity sectors. The competitive position of a destination depends and can also be reinforced by the diversity and quality of the suppliers installed in the territory (carriers, high quality related services (financial system, telecommunications, health), food industry, sports facilities, leisure and cultural activities, etc.

4°. Market structure, rivalry, organization and strategy. These conditions are very important and refer to the way in which the destination and its elements are organized and managed, in particular the availability of a strategic plan supported by all the parties involved, both public and private, of a strategy, a marketing strategy and clear and effective promotion, a strong brand image, efficient coordination mechanisms, well-structured and governed management bodies.

Note that the "diamond" is presented as a system of mutual reinforcement in the sense that there is interdependence between the different determinants. When it comes to positioning within sectors, there are two basic types of competitive advantage: lower costs and differentiation. At prices equal to or similar to those of competitors, the lower cost translates into higher returns. Differentiation, on the other hand, is the ability to provide the buyer with superior and unique value in terms of quality, special features and service.

In addition, for Porter, companies manage to create value for their buyers, through the activities they develop. That is, by performing them more efficiently than its competitors (at a lower cost) or, in particular, that it can differentiate it in the eyes of its customers. Well, as this author points out, these principles of competitive strategy are applicable both if the company is competitive nationally or internationally. It is therefore important to analyze the role of the nation in competitive advantage when examining the sectors in which competition is international, as is the case in the tourism sector.

Many authors consider that, the main tool for strategic analysis of the competitiveness of tourist destinations is the diamond, because it includes all the factors which, together, determine the possible competitive advantage of the tourism activity in a certain territory This will have greater potential for tourism development insofar as the conditions of factors (human resources, capital, infrastructure, natural resources and cultural resources, among others), the structural and strategic characteristics of tourism businesses, the presence of related support and competitive
sectors and the conditions of demand for the products and services offered by the destination are favorable to improvement and innovation in the tourism sector.

1.2.3.2. The theory of resources and capacities

This theory is based on the definition of the enterprise as a set of resources and capacities, being linked to the recognition of intangible assets as the main roots of sustainable competitive advantages (Barney, 1991). According to Leonard-Barton (1992) “is the knowledge set that distinguishes and provides competitive advantage”.

Figure 3. The basic relationships between resources, capabilities and competitive advantage

![Diagram of resource, capability, and competitive advantage relationships.](source: Adapted from Grant (2008) in Leigh Robinson (2012)]

The company's competitive advantage is therefore manifested in its ability to offer a product differentiated from its competitors, or in its ability to obtain goods and services at lower prices. This approach analyzes the importance of the resources and capacities available to companies as a source of long-term competitive advantages.

As for resources, they can be tangible, such as installations, factories, financial assets or intangible assets, such as the qualification of workers, reputation, and brand image, among others. In this sense, some authors (Amit and Schoemaker, 1993) point out that resources are converted into final products or services using a wide range of other assets and linkages, such as technology, management information systems, incentive system, and climate of confidence.

These resources can be differentiated from those which are defensible assets, i.e. over which there is a clearly established property right, such as physical and financial assets and part of the intangible assets such as trademarks and patents registered, and other assets, such as the prestige and reputation of the company and the qualification of its workers, over which there is no property right.

Consequently Workers who have specific human capital undoubtedly constitute a precious resource for the company.

However, these resources do not by themselves explain the obtaining of competitive advantages. It depends on the company's strategy to develop its resources and especially its human resources. This is what another author (Grant, 1991), points out: “The importance for the strategy of the company not only to exploit the current resources, but especially to analyze which resources and
capacities are not possessed and which are necessary to extend and develop strategies in the future."

It is a "portfolio" of qualitative skills which condition the mode of differentiation of each company, among others, the quantity and quality of the skills and resources it possesses, not only tangible but also intangible.

On the basis of this theory, one might wonder what resources and capacities can differentiate the tourism business in the current economic context. In other words, to find out what are these distinctive capabilities that allow businesses and destinations in the tourism sector to offer services that meet the needs of their customers in a way superior to that of their competitors.

As we will see in the following, improving and increasing the human capital of tourism can be configured as an essential element to obtain long-term sustainable competitive advantages.

1.2.3.3. The cognitive advantage of Nations: intangible capital

Mobilizing cognitive benefits of Nations (intellectual capital) holds now bigger importance, compared to what has long been the rule, namely the mobilization of their comparative advantages, mainly the work, owned to the model of cost competitiveness. "Beside the markets of land, money and labor that structured historical capitalism, the birth and development of a knowledge market and correspondingly skills, will be the new center of a strong institutional reconfigurations and reforms, that await economies and societies in the next twenty years"(Bahloul, 2015).

Today, the level of human capital explains the majority of differences in economic level between countries

Figure 4. Human capital and differences in economic level between countries


As reported in the 2019 edition of the World Development Report, under the title "World Development Report 2019: Work Changes", the skill level is changing rapidly, which presents both opportunities and opportunities and risks. More and more studies show that if they do not develop their human capital, countries cannot maintain sustainable economic growth, prepare
their workforce for the better-qualified jobs of tomorrow and face competition in the global economy. For countries that do not invest enough in their human capital, the price of inaction is growing.

2. Analysis model: Measuring tourism competitiveness

Many studies have tackled the problem of the competitiveness of tourism "but no theoretical model, to our knowledge, has succeeded in establishing the empirical links that exist between tourism and competitiveness" (Dupont, 2019).

Over the years, initiatives have multiplied to try to model and measure the competitiveness of a tourist destination. In general, research has been based on economic theories of comparative advantage and Porter's (1990) work on competitive advantages. The authors have proposed generic models aiming to identify all the particularities and dimensions of the competitiveness of tourist destinations (Achab a and Bendou, 2017).

These studies are mainly divided into two themes: determinants and evaluations of the competitive performance of destinations. Regarding the competitive performance of destinations, some authors have proposed models to assess the tourism competitiveness of destinations (Dwyer et al. 2000). Regarding the determinants of the competitiveness of tourism, some studies have focused in particular on the specific factors influencing the competitiveness of tourism (Gooroochurn and Sugiyarto, 2005).

But it is undoubtedly the evaluations carried out by international organizations (UNWTO, OECD, WEF) which are the most to be considered. The methodologies differ, but all come together to define the factors of competitiveness of a tourist destination. Therefore, various indicators have been developed by different organizations to address specific aspects of competitiveness, in order to be able to present a framework for the overall measurement of competitiveness in tourism for use by governments. We will briefly present the approach that we believe to be the most important for understanding tourism competitiveness indicators, namely the one developed by the WEF (World Economic Forum).

2.1. The approach of the World Economic Forum

The TTCI, developed by the WEF, has been one of the most popular measures to evaluate international competitiveness in the tourism industry since 2007 (Crotti and Misrahi, 2017) Published every two years, the WEF report assesses the tourism competitiveness of 140 countries and produces a ranking based on the Travel and Tourism Competitiveness Index (TTCI). This index, composed of 4 sub-indices, 14 pillars and 90 indicators, measures the group of "factors and policies that allow sustainable development" of the sector, explains the WEF. A total score varying between 1 and 7 is assigned to each country evaluated.
Table 1: The components of the Travel and Tourism Competitiveness Index

![Travel & Tourism Competitiveness Index Diagram]

**Source:** Uppink Calderwood, L. and Soshkin, M. (2019)

1°. **Enabling environment:** The enabling environment index contains general conditions necessary to operate in a country and includes five pillars:

1.1. Business Environment (12 indicators);
1.2. Safety and Security (5 indicators);
1.3. Health and Hygiene (6 indicators);
1.4. Human Resources and Labor Market (9 indicators);
1.5. ICT Readiness (8 indicators).

2°. **T&T Policy and Enabling Conditions:** The index "T&T Policy and Enabling Conditions" evokes specific policies or strategic aspects which have a more direct impact on the tourism and travel sector, and includes 4 pillars:

2.1. Prioritization of Travel and Tourism (6 indicators);
2.2. International Openness (3 indicators);
2.3. Price Competitiveness (4 indicators);
2.4. Environmental Sustainability (10 indicators).

3°. **Infrastructure index:**

3.1. Air Transport Infrastructure (6 indicators);
3.2. Ground and Port Infrastructure (7 indicators). 3.3. Tourist Service Infrastructure (4 indicators).

4°. **Natural and Cultural Resources:**

4.1. Natural Resources (5 indicators);
4.2. Cultural Resources and Business Travel (5 indicators).

2.2. The human capital factors

The human capital factor appears in the title 1.4. Human Resources and Labour Market with 9 indicators, whose importance is thus expressed: “High-quality human resources in an economy
ensure that the industry has access to the collaborators it needs. The components of this pillar measure how well countries develop skills through education and training and enhance the best allocation of those skills through an efficient labour market. The former includes formal educational attainment rates and private sector involvement in upgrading human resources, such as business investment in training services and customer care. The latter includes measures of the flexibility, efficiency and openness of the labour market, and the participation of women, to assess the depth of the country’s talent pool and its ability to allocate human resources to their best use.”

Covering 140 economies, the Travel & Tourism Competitiveness Index measures the set of factors and policies that enable the sustainable development of the travel and tourism sector, which contributes to the development and competitiveness of a country.

In each report the ranking of countries undergoes variations. Countries which gain places and countries which fall in the ranking. But the hierarchy is’nt hardly disturbed. We still note that the main tourist destinations are at the top of the TTCI ranking, and generally represent countries where human capital is highly developed despite the performance of other factors of competitiveness. The correlation between human capital and competitiveness is well established. As an example we can observe the situation of some countries and Maghreb countries.

Table 2: Overall Rankings (T&T Competitiveness Index 2019)
Overall scores range from 1 to 7 where 1 = worst and 7 = best. 2 Change in score is displayed as a percentage


### 2.3. Ranking of the Maghreb States and some other countries by the Global human capital index and T&T Competitiveness Index

Notwithstanding the other factors determining the competitiveness of tourist destinations, whose the importance should not be minimized, we nevertheless observe the clear correlation between the international ranking in the global human index and the T&T Competitiveness Index. That shows the importance of the role of human capital in the competitiveness of the tourism business.

The best ranked countries in the human development index are also the best ranked countries in the tourism competitiveness index and conversely the worst ranked countries in the human development index are also the worst ranked countries in the competitiveness index, as can be seen on the sample of countries we have chosen for this illustration, Germany, the USA, Switzerland, and New Zealand on the one hand and the countries of the central Maghreb on another side.

#### Table 3. Ranking of the Maghreb States and some other countries in the Global human capital index and T&T Competitiveness Index

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<th>Country</th>
<th>Global human capital index</th>
<th>T&amp;T Competitiveness Index</th>
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<td></td>
<td>Rank</td>
<td>Value</td>
</tr>
<tr>
<td>Germany</td>
<td>6</td>
<td>74.30</td>
</tr>
<tr>
<td>United States</td>
<td>4</td>
<td>74.84</td>
</tr>
<tr>
<td>Switzerland</td>
<td>3</td>
<td>76.48</td>
</tr>
<tr>
<td>New Zealand</td>
<td>7</td>
<td>74.14</td>
</tr>
<tr>
<td>Algeria</td>
<td>112</td>
<td>51.51</td>
</tr>
<tr>
<td>Morocco</td>
<td>118</td>
<td>49.47</td>
</tr>
<tr>
<td>Tunisia</td>
<td>115</td>
<td>50.76</td>
</tr>
</tbody>
</table>

Source: Built by us on the basis of data from Global human capital index 2017, and T&T Competitiveness Index 2019, World Economic Forum

We can observe that Morocco is in 66th in the T&T Competitiveness Index with a score of 3.9. Tunisia follows with a score of 3.6, and 85th in the world, Algeria with 3.1 and 116th in the world,
which seems to reflect fairly well the situation of the tourism sector in these three countries (naturally, without taking into account of the situation generated by the coronavirus 19).

In the report entitled "Human Capital Index", published in September 2017, the World Economic Forum ranked Algeria 112th, Morocco 118th and Tunisia 115th out of 130 countries surveyed, achieving a low score of only 51.51% for Algeria, 49.47 for Morocco and 50.76 for Tunisia, far behind the first 20 countries, and in this case the countries that we have taken as an example, namely Germany, the USA, Switzerland and New Zealand with scores respectively 74.30%, 74.84%, 76.48%, 74.14% of their developed human capital.

We can observe that the scores are very close unlike the classification in the competitiveness index. If Algeria has the best score in terms of human capital development, this is not reflected in the ranking of tourism competitiveness. This can be explained by the particular situation of this country in terms of development of the tourism sector in all its aspects (infrastructure, environment, quality of service ...).

Anyway with such low scores, the Maghreb countries have only developed about half of their human capital. Consequently, the countries of the central Maghreb can still progress in terms of competitiveness of tourism if it improves their human capital.

As indicated by René Trabelsi, (Tunisian Minister of Tourism) concerning Tunisia, the country "must focus on the quality of its products and on the development of training for employees in the tourism sector to ensure qualified personnel. There is a huge labor shortage in this sector. Tunisia now does not have enough qualified staff, and yet hotels are in demand. The quality approach has become inherent in any tourist activity, for the sake of profitability, the image of the company, its products, customer loyalty, but also that of being part of a sustainable tourism process." (Bouaouina (2019).

Awareness of this quality imperative is very real today, and this is part of the training of human resources and development of human capital.

3. Results and discussion

The basic questioning of our problematic was to know if, the human capital in tourism can be considered as a factor of strategic competitiveness for this sector. The conclusion we have reached is that there is strongly correlation between the human capital of a country and its place in competitiveness in tourism. Therefore, we consider the human capital of tourism as one of the key factors to achieve sustainable competitive advantages for the sector.

We have synthetically presented the theoretical and empirical arguments on the theoretical level we have succinctly explored the concept and theories of human capital, and the concept and competitiveness theories.

On a theoretical level, we have briefly explored the concept and theories of human capital, as well as the theories of concept and competitiveness.
Regarding human capital, we have seen that conceptually, there is no consensual definition, however, no definition proposed deviates from the essential, namely education and training which constitute the foundations of all the theories of human capital from those put forward by the founders Schultz and Becker to the most recent Human capital, as we have seen very briefly, is built through training and the development of human resources.

Regarding competitiveness and tourism, as we have been able to report very briefly, there are several approaches to the concept of competitiveness. We have presented quite succinctly two differentiated approaches that can help determine which factors in the tourism sector can lead to the achievement of long-term sustainable competitive advantages. These are Porter’s (1990) Competitiveness Model and his Diamond, which helps analyze why a nation is successful in a particular industry; and the theory of resources and capacities which help to determine which resources and capacities can constitute keys to the competitiveness of companies in the tourism sector.

What we learn from these theories is that the concept of competitiveness has shifted over time from the traditional approach based on comparative advantages to one of competitive advantage. In the case of the tourism sector, the determinants of its competitiveness reside both in its comparative advantage, mainly linked to the allocation of resources of the tourist destination, as well as its competitive advantages mainly linked to the quality of its human resources in other words of its human capital.

On the empirical level, we presented the World Economic Forum’s tourism competitiveness assessment model, which is considered to be the most complete and the most exhaustive despite the criticisms addressed to it, particularly on the methodological level (the assessment of indicators and their weighting). The ranking operated by the World Economic Forum clearly shows that the best ranked countries are also the best ranked countries in the Global human capital index, whatever the year considered, in this case the year 2017 which we have taken as example. The weight of human capital in tourism competitiveness is clearly established. We have shown this clearly enough by constituting a small illustrative sample of the correlation between human development and tourism competitiveness. Our hypothesis in this analytical essay is perfectly verified. There can be no progress in the tourism competitiveness of nations without the development of human capital.

Conclusion and perspectives:

In conclusion of this analytical essay, focusing on Human capital and tourism competitiveness, we can argue that there is a very positive relationship between these two variables. This is clearly evident from this analysis, whether at the theoretical or empirical level. At the methodological level, given the consideration of many criteria influencing tourism competitiveness, the criticisms remain expressed and no evaluation model escapes. Our modest contribution consisted in synthesizing the theoretical and empirical arguments to highlight the role of human capital in tourism competitiveness.
This being, there are still many avenues of research to shed light on the role of human capital in tourism competitiveness. If it is therefore established that human capital plays a preponderant role in the competitiveness of tourism, the countries which are lagging behind in the development of human capital, such as the Maghreb countries should therefore devote more attention and effort in the training of their human resources for tourism and beyond for the national economy.

Each country chooses the path of development of its education system according to its means, its priorities, and its own institutional path. Education systems are questioned and constantly criticized in all countries. In the Maghreb, for example, according to several studies (Djeflat, 2015), many weaknesses with some minor differences in each country have been highlighted in human capital development systems. How to design and implement educational systems and training, contributing to the development of human capital, not only in the tourism sector itself but beyond for the entire national economy, such is the problem that still remains posed.

The results of many studies show that all systems can progress. The emphasis is on a common core of fundamentals, whatever the level of performance of the countries (Gauthier and Tagne, 2014).

For this, many lines of research are open to cover all the contours of an efficient training of human resources for an efficient development of human capital qualitatively and quantitatively: revision of the nomenclature of professions and trades, training of trainers, treatment and motivation trainers, revision and adaptation of educational content, intensive teaching of foreign languages ... These are the few axes but the list is long.

References:
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