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Sustainable Development Goals, perceived territorial capital and feeling of being able to live  
on its territory: a survey of young people in Cameroon

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**Abstract:**

How to measure the impact of a local sustainable development initiatives on a given territory? How to measure the impact of fair trade on local populations? To answer these questions, our paper proposes a measurement tool based on the perceived territorial capital, a concept defined by Servillo et al. (2012). Considering the Sustainable Development Goals (SDGs) of the United Nations, the originality of our research comes from basing our measurement indicator on the individual subjective perceptions of the inhabitants of the area. Two qualitative surveys, followed by a quantitative survey (n = 367), were conducted in Cameroon. This research offers a 23-item 7-dimensional scale that assesses Servillo et al.'s perceived territorial capital at the individual level. The scale shows adequate reliability and validity, when tested among a sample of young people in Cameroon. It broadens the range of fair trade and SDGs assessment tools.

The Sustainable Development Goals (SDGs) were adopted in September 2015 by 193 UN Member States, and constitute the United Nations Sustainable Development Agenda for 2030. These goals finalize public policy strategies and social movements that claim to be part of the transition to a more sustainable world. Fair Trade (i.e. FT) is one of these movements. It responds to several of the SDGs: the fight against poverty (SDG 1) and hunger (SDG 2),

access to education (SDG 4), safe drinking water (SDG 6), decent working conditions and economic opportunities (SDG 8), as well as reduction of inequalities (SDG 10).

One of the main issues regarding these SDGs is their measurement and operationalization. For now, mainly objective indicators are retained<sup>1</sup>, by aggregating data from national statistics and international organizations (UNICEF, World Bank, etc.)<sup>2</sup>. These data do not really allow to discuss the impact of the FT, as it would require measures at a more local or territorial level. Moreover, subjective measures are absent from these indicators. Yet the Humanities and Social Sciences have a wide range of subjective measures that could be used to measure these SDGs. The goal of this study falls within this arguments.

FT is supposed to allow an improvement of the living conditions of the families of producers, but also of all the populations living on a territory. It is expected to generate community-level ripple effects (Utting, 2009, Le Velly, 2009), thanks for instance of the development bonus that can be used to improve the living conditions of the local population (access to drinking water, health, education, etc.). This raises the question of measuring the living conditions of these local populations and their level of access to the various SDGs mentioned above (e.g. access to water, education, etc.), while taking into account the inequality of these accesses within the population. Indeed, on a territory, the distribution of the benefits of fair trade can be very heterogeneous and benefit only a small group of beneficiaries (Carimentrand, 2009).

The present research proposes to rely on the perceptions of the populations living on a territory. More precisely, we offer a tool for measuring the attractiveness (and the sources of this attractiveness) of a given territory, in the eyes of the populations. We have chosen to focus on the young people' perception of the attractiveness of a territory, as the issue of retention is generally the strongest for this segment of population. Our general hypothesis is that the studied territory is valued by its inhabitants when it provides the necessary resources so that its young people can feel capable of building the life they want. This hypothesis is in line with Sen's theory of development.

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<sup>1</sup> See the 2017 report of the indicators on the website of the UN Statistical Division: [https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017\\_English.pdf](https://unstats.un.org/sdgs/files/report/2017/TheSustainableDevelopmentGoalsReport2017_English.pdf)

<sup>2</sup> See "Tier Classification for Global SDG Indicators", December 2017; [https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators\\_15%20Dec%202017\\_web%20final.pdf](https://unstats.un.org/sdgs/files/Tier%20Classification%20of%20SDG%20Indicators_15%20Dec%202017_web%20final.pdf)

Researchers who studied the concept of territorial capital or attractiveness (Servillo et al., 2012; Camagni, 2017) offered a conceptual framework based on a classification of the various territorial resources. Collective investment (water supply, access to health, education, digital technologies, etc.) can play this role, alongside economic opportunities or opportunities to participate in the governance of the territory. It constitutes a very useful basis for the identification of the different territorial resources, which may be considered as perceived benefits or obstacles, impacting the feeling of being able to live in one's territory. However the concept of perceived territorial capital and its dimensions should be operationalized and empirically validated. To develop such a measurement scale, we conducted two qualitative surveys (n = 40) and a quantitative survey (n = 367) in four territories in Cameroon. The two qualitative surveys are intended to identify territorial resources related to the categorization of Servillo et al. (2012). The quantitative survey aims to validate the various dimensions of the categorization developed by Servillo et al. (2012) and to study their respective impact on two psychological variables generally used in decision process models: a) the feeling of being able to stay in one's territory (i.e. perceived behavioral control in the theory of planed behavior, Ajzen, 1991) and b) anticipated regrets (Richard and al., 1995; Van der Pligt et al., 1998, Sandberg & Conner, 2008). In the theory of planed behavior (Ajzen, 1991) these two variables are supposed to explain the intent to live in its territory by young inhabitants. Our purpose here is not to validate a decision process model; a previous study (see, Pernin et al., 2017) validated the usefulness of the theory of planed behavior (Ajzen, 1991), when studying young French people intention to stay and live in a territory. We rather focus here on the identification of territorial resources, studying the impact of the various dimensions of perceived territorial capital on these psychological variables to explore the nomological validation of the perceived territorial capital measure.

In the end, we expect to offer a tool that will enable FT actors to measure their impacts on local populations, and to identify the factors that can contribute to the retention of young people in their territories.

Our paper is organized as follow. In the first part, we present the theoretical framework and the qualitative surveys that lead to the identification of the resources of a territory. In the second part, we describe the quantitative study which main objectives are to identify the dimensions of the territorial capital and to test the strength of the scale (i.e. its validity and reliability). Discussion and suggestions for further similar research are elaborated in the last section of this report.

## **I Theoretical framework and identification of the resources of a territory**

### **Theoretical framework**

We present, first, the various psychological variables we will use to explore the nomological validation of the perceived territorial capital measure.

In our research, the feeling of being able to live on one's territory is the first dependent variable we expect to be predicted by perceived territorial capital measure. In psychosocial theories, this variable corresponds to the concept of perceived behavioral control or perception of control over behavior (Ajzen, 1991). This feeling of freedom of choice about the studied behavior is supposed to come from the resources an individual can use to achieve an intended behavior. The availability (or unavailability) of these resources are benefits (and barriers) associated with the feeling of being able to perform the behavior and, ultimately, the behavior itself. For example, being able to benefit from a network of friends is a benefit that can lead the individual to feel able to stay in her/his territory. On the other hand, the lack of infrastructure in terms of health can be a barrier. According to Ajzen (1991), these benefits and barriers constitute sources of motivation leading to the adoption of a behavior. The second dependent variable is about anticipated regrets (Richard and al., 1995; Van der Pligt et al., 1998). It measures a negative emotional reaction if not adopting the behavior. In our subject, it measures the emotional cost when renouncing at the various resources the territory can offer. It has been introduced in the theory of planned behavior since the initial work of Richard and al. (1995). It has also been introduced in the work of Pernin and al. (2017). In this last work, it was the strongest predictor of the behavioral intentions, in front of attitude, perceived behavioral control and place identity (ibid, p. 12).

Intent to live in its territory is the last dependent variable we will try to explain. It represents the very final dependent variable.

We expect that perceived behavioral control and anticipated regrets depend of territorial resources an individual can access to. These various territorial resources must, as a first step, be identified as comprehensively as possible. The recommendation in this area (Ajzen, 1991) is to conduct semi-directive interviews. However, this method may not achieve a good level of saturation; the unconscious nature of beliefs about the benefits and barriers can lead to partial extraction, even by multiplying the semi-directive interviews. The comparison of the

results of these interviews with theoretical frameworks can be a useful complement to ensure a good level of saturation. For our subject, the theoretical framework developed by Servillo et al. (2012) can be particularly useful. They discuss the concept of territorial capital, "a crucial dimension of the attractiveness of places. It is intended as a complex system of natural and socioeconomic elements, defining the uniqueness of local assets" (Servillo et al., 2012, 340). According to these authors, six dimensions (or potential assets) make up the capital of a territory: environmental capital (climate, natural resources, landscapes, etc.), antropic capital (build environment, architecture, infrastructure, hotels, etc.), economic capital and social capital (education, diversity, social network, gender and ethnic aspects, tolerance, level of security, etc.), institutional capital (democracy, efficiency of the system, tax climate, participatory processes, accessibility, etc.) and cultural capital (monuments and landmarks, infrastructure and services, high education, activities, etc.).

The primary objective of this research is to identify the different sources of value of a rural territory in West Africa using semi-structured interviews and using the grid presented below. The link with the SDGs must also be taken into account as our goal is to produce a tool that will measure some of these SDGs.

### **Identification of the different sources of value of a territory**

The identification of the sources of value of a territory is based on the results of two qualitative studies conducted in Cameroon. The first one took place in a village located in the Bamileke country, a mid-mountain area in Western Cameroon. Twenty semi-structured interviews were conducted on the basis of grid (see below) constructed to identify the benefits and barriers associated with the idea of staying on one's territory.

#### Semi-structured interviews grid

In your opinion, what are the benefits, interests, personal motivations to stay in the village?

What impression does it give you to imagine living in the village?

In your opinion, do you think that your comrades will live in the village later? If yes / no, why?

Do you know people around you who have decided to leave the village? The reasons for choosing their departure?

Do you think your family would like to see you stay in the village? Do you feel family pressure (brothers, sisters, parents, aunts)?

Do you think your friends want you to stay in the village? Why ?

If you want to stay, do you have the opportunity? If no ... What would stop you from staying?

Are you attached to the village? To life in the village

Are you the type of person who would like to stay in the village? Do you see yourself staying there?

What is missing in the village to encourage people to stay?

Do you plan to stay in the village? To do what? Accounts you will return in 4 years / 10 years / 20 years?

Regarding the concerned territory, it should be noted the presence of a high school, unpaved roads, free but difficult access to drinking water, paid access to electricity, agricultural products mainly oriented towards coffee, cocoa and food crops (beans, yams, plantains and sweet, avocados, macabo) and some farms (pigs, goats, chickens). The village is composed of less than 1000 inhabitants, with a very strong social structuring (chief, notables) and a very pregnant culture: traditional dances, ancestor worship (animism), and adoration of the skulls. The interviews were conducted by 4 students, during an international solidarity project. The sample is made up of 8 girls and 12 boys, aged between 12 and 24, and ranging from 6<sup>th</sup> grade to 11<sup>th</sup> grade in terms of schooling.

Overall, the vast majority of them (16 quotes) want to leave the village, especially to continue their studies. They only plan to return from time to time. Four wish to live in the village because of their attachment to the territory, family and traditions. Only one of them mentions the possibility of being able to "easily earn my bread here".

The results show, in terms of benefits associated with the targeted territory: access to food without having to pay for it or ease of feeding (10 citations), good learning conditions (few staff in classes) (8 quotes), security (few fights, control of gambling), tranquility (8 quotes), the possibility of agricultural work (5 quotes), the existence of a high school nearby (4 quotes), the quality of the environment (the "good air", the climate) (3 quotes), the fact of being able to live its culture, its tradition (3 quotes), the links with the grandparents (3 quotes), the fact that the village is electrified (2 quotes), the ease of access to the property (possibility of building his/her house at a low price) (2 quotes). Then come some benefits only

mentioned once: the opportunity to learn agricultural work, freedom, the landscape, the fact that there is less waste than in town. In terms of barriers, prospects for the future and jobs are the most important obstacles with the lack of infrastructures (University / high schools, hospitals, roads) (11 quotes). A second group of barriers (6 quotes) concerns the absence of a multimedia center and a library, the lack of openness and intellectual development of the inhabitants. Then, there is the lack of recreation (3 quotes), the problem of access to running water (2 quotes), the fear of witchcraft (2 quotes), the difficult life in the village (drawing water, working at home) (2 quotes). Concerning the social pressure perceived by young people, the results are often dissonant for the same individual who is caught between contradictory pressures: for example, the father wishes that he leave but not the mother; it is the same according to the friends. One of them notes that "his most intelligent friends want him to leave in order to continue to learn and the less intelligent want him to stay".

The second qualitative study was carried out by a university professor, in an urban setting (the city of Douala). The same interview grid, augmented by the experience related to the territory of origin, was used. This second sample is made up of 11 women and 9 men, aged between 18 and 25, coming from several territories in Cameroon. The vast majority of them indicated that their wish is to return to live on their territory for retirement, after valuing the years of study undertaken. In addition with the results of the first qualitative phase, this second set of interviews brought additional insights: a) the benefits associated with an economic wealth available in the territory of origin as well as the possibility to engage in the development of the territory and, b) in terms of barriers, the problem of access to sources of distraction and the possibilities of access to capital.

The results of these two qualitative studies were then classified according to Servillo et al. (2012) conceptualization of the notion of territorial capital (see Table 1). All the dimensions are operationalized by at least two items. Only the "Institutional Capital" dimension is poorly represented, particularly at the level of the participatory processes. To improve the measurement of this dimension, we have added two items: "Being able to participate in the decision making regarding the territory" and "Being able to get involved in local associations".

Regarding the measurement of the SDGs, at the level of the "economic capital" dimension, we find: the fight against poverty and hunger (SDG 1 and 2), access to economic opportunities (SDG 8) and new objectives such as being able to feed at low cost, find housing at an affordable price, access to financing and the level of economic activity in the region. At



the level of the "Antropic capital" dimension, we have access to education (SDG 4), health (SDG 3) and drinking water (SDG 6). This dimension also includes other objectives that are not identified as such in the SDGs targeted by FT: access to electricity (SDG 7), transport (SGD 11), internet (SDG 17).

Finally, we note that the SDGs are relatively limited in that they do not include objectives that seem important to individuals: living in a safe environment without pollution, being able to participate in the decision-making process of local governance structures or enjoying cultural heritage and sources of distraction.

**Table 1:** Results of the qualitative studies according to the dimensions developed by Servillo et al. (2012).

<p><b>Environmental capital</b></p> <p>Enjoying a healthy climate</p> <p>Living in a place without pollution</p>	<p><b>Antropic capital</b></p> <p>Health infrastructure</p> <p>School infrastructure</p> <p>Access to the internet</p> <p>Transportation infrastructure (railways, roads)</p> <p>Access to drinking water</p> <p>Access to electricity</p>	<p><b>Economic capital</b></p> <p>Access to capital and funds</p> <p>Purchasing local products at affordable prices</p> <p>Being able to feed myself at low cost</p> <p>Finding housing at an affordable price</p> <p>The level of economic activity in the region</p> <p>Being able to take advantage of a family economic asset</p> <p>The possibility of practicing agriculture</p>
<p><b>Human and social capital</b></p> <p>Living close to my family</p> <p>Living close to my friends</p> <p>The intellectual level of the inhabitants</p> <p>The level of open-mindedness of my entourage</p> <p>Enjoying a safe place of life</p>	<p><b>Institutional capital</b></p> <p>Getting involved in the local development</p>	<p><b>Cultural capital</b></p> <p>Being able to keep alive (learn and transmit) the cultural heritage</p> <p>Enjoying my regional culture</p> <p>Accessing entertainment</p>

## II Development and test of the measurement scale

## **The measurement scale**

Beliefs about territorial resources identified in the qualitative phases were measured either as benefits or as barriers. Benefits are measured with items such as "staying in my territory would allow me to ..." and with a 7-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree). Barriers were measured with items such as "please evaluate how the factors below constitute a barrier that could prevent you from staying on your territory" and with a 7-point Likert scale ranging from 1 (not a barrier at all) to 7 (a very important barrier). Scores related to barriers were then reverse coded to be consistent with the measurement of benefits.

Similarly, all dependent variables were measured with a 7-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree). The perception of control over behavior was measured with three items (Ajzen, 1991, Pernin et al., 2017 for a scale developed on the subject): "nothing prevents me from staying in my area if I want it"; "if I want it, I can easily stay in my area"; "it would be easy for me to build my life in my area" (Cronbach alpha: 0.654 close to the result of Pernin and al., 2017). Anticipated regrets were measured with four items (Sandberg & Conner, 2008): if I do not stay in my area I risk: to regret it, to be disappointed, to be dissatisfied, to have the feeling of missing something. The last item of the scale has been removed because of a lack of reliability (Cronbach alpha is 0.766 with it and 0.788 without it). Intention was measured with three items: I absolutely intend to stay living in this region, I intend to ensure being able to stay living in this region, Even if I temporarily leave I intend to return to live in this region to make my life there (Cronbach alpha: 0.816).

Demographic variables included gender, age, activity of the respondent (middle school student, high school student, employee, no activity, other) as well as parents' occupations.

The questionnaire was first tested with a sample of 20 university students to ensure that the questions retained were clear and understandable. It was self-administered under the supervision of 3 interviewers<sup>3</sup> with a good knowledge of the local specificities of the concerned geographic territories. Administration took place in four different areas: an urban center (Douala, the economic capital), two territories<sup>4</sup> in the Bamileke region (Bafoussam and Dschang), and in the Moungo department (Penja area)<sup>5</sup>. The administration was carried out in September, before the rainy season, in middle schools, high schools and one university (for

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<sup>3</sup> The 3 interviewers were trained to facilitate their understanding of the questionnaire.

<sup>4</sup> Where several cooperatives certified as "organic" are located.

<sup>5</sup> Where pepper with PGI (Protected Geographical Indication) certification is produced.

Douala). A total of 400 questionnaires were collected. The database was then purified by deleting observations with small standard deviation ( $<0.5$ ) and large number of non-responses. Missing data were completed based on the nearest values. The final database contains 367 observations. Final sample characteristics are the following: women (57.8%); individuals aged 14 to 30 with a mean of 20.5. The majority (34.4%) of the sample is aged from 18 to 20. 52.1% are high school students and 40.3% are middle school student. The parents' occupation shows a high rate of farmer-owning child (36.8%). The geographical distribution of the sample is balanced across the four target areas: Penja (25.6%), Bafoussam (24.3%), Dschang (24.8%) and Douala (25.3%). Descriptive statistics are summarized in Table 2.

**Table 2:** Descriptive statistics of the 23 items scale

		Mean (Standard Deviation)
<i>Staying in my area would allow me...</i>		
Blodging	to find housing at an affordable cost	4.9 (2.4)
Bfeeding	to eat at a low cost	4.8 (2.5)
Bfamily	to stay close to my relatives	4.8 (2.6)
Bsafety	to live in a safe area	4.6 (2.4)
Blocaldev	to get involved in the local development	4.6 (2.4)
Bclimat1	to enjoy a healthy climate	4.5 (2.5)
Bagri	The possibility of practicing agriculture	4.5 (2.6)
Bfriends	to stay close to my friends	4.2 (2.6)
Bclimat2	to live in a place without pollution	4.2 (2.6)
Bculture2	to enjoy my local culture	4.1 (2.6)
Bpatrim	to take advantage of my family's economic assets	4.0 (2.6)
Basso	to get involved in local associations	3.6 (2.6)
Bgouvern	to participate in the decision-making processing with respect to my territory	3.5 (2.5)
<i>Indicate how the factors below constitute a restraint or a barrier that could prevent you from staying on your territory (reversed items: 1 important restraint, 7 not at all a restraint)</i>		
Rschool	school infrastructure	4.6 (2.5)
Rinternet	internet access	4.6 (2.5)
Rintellec	intellectual level of the inhabitants	4.5 (2.5)
Recoact	economic activity level in the region	4.3 (2.6)
Ropenmind	open-mindedness of my entourage	4.3 (2.5)
Rhealth	health infrastructure	4.2 (2.5)
Rroad	transportation infrastructure	4.0 (2.5)
Relectr	access to electricity	3.9 (2.5)
Rwater	access to drinking water	3.8 (2.6)
Rfinancing	access to funding and capital	3.5 (2.4)

Several exploratory factor analyses (Table 3 present only the last one) were conducted under SPSS 23, using a principal component analysis (Promax rotation method). All the benefits and barriers have been incorporated into the same analysis. We remove from the analysis

items which loading are <0.5 or those which loading are distributed on several components. It concern eleven items: mysticism practices and access to entertainment barriers, benefits about learning conditions, being able to earn enough money, continue with sport and recreation practices, keep alive the cultural heritage, to get good quality of life, to be free, purchasing local products at affordable prices and, the last one, to live local agriculture. The last structure matrix showed a 7-component solution with a variance extracted close to 60% (60.3%).

**Tableau 3:** Results of the exploratory factor analysis and Cronbach alphas

	Factor						
	1	2	3	4	5	6	7
Bfamily	.807						
Bculture2	.708						
Bpatrim	.703						
Bfriends	.678						
Rwater		.760					
Relectr		.750					
Rfinancing		.667					
Recoact		.676					
Rinternet			.802				
Rroad			.760				
Rhealth			.709				
Rschool			.708				
Bclimat2				.835			
Bclimat1				.774			
Bsafety				.688			
Bgouvern					.821		
Basso					.763		
Blocaldev					.690		
Bfeeding						.721	
Blodging						.710	
Bagri						.633	
Rintellec							.814
Ropenmind							.807
Cronbach Alpha	0.753	0.717	0.770	0.697	0.656	0.674	0.666
% of variance extracted	60.3%						

All items loaded highly (above 0.65) on the appropriate factor and no item loaded on more than one factor, supporting the independence of the constructs and providing strong empirical

evidence of their validity. All Cronbach alphas were above 0.65, indicating satisfactory reliability.

Table 4 shows the correlations analysis between the seven components. All correlations are well under 0.50, confirming the discriminant validity of the various components.

**Tableau 4:** Correlation matrix

Composante	1	2	3	4	5	6	7
1	1.000						
2	.057	1.000					
3	-.055	.351	1.000				
4	.279	.029	.039	1.000			
5	.355	.142	-.065	.190	1.000		
6	.365	.024	-.142	.389	.251	1.000	
7	.037	.239	.326	-.127	-.017	-.084	1.000

In a final step, the seven dimensions were labelled (see Table 5) in comparison with Servillo et al. (2012) original framework.

**Tableau 5:** Perceived territorial capital scale and its dimensions in comparison with Servillo et al. (2012) conceptualization of “territorial attractiveness”

Dimensions	Items	Corresponding dimension in Servillo et al. (2012)
Human and social capital	Bfamily: to stay close to my relatives Bculture2: to enjoy my local culture Bpatrim: to take advantage of my family’s economic asset Bfriends: to stay close to my friends	Human and social capital
Economic capital	Rwater : access to drinking water Relectr: access to electricity Rfinancing: access to funding and capital Recoact: economic activity level in the region	Economic capital
Anthropic capital	Rinternet : internet access Rroad: transportation infrastructure	Anthropic capital

	Rhealth: health infrastructure Rscool: school infrastructure	
Environmental capital	Bclimat2 : to live in a place with no pollution Bclimat1 : to enjoy a healthy climate Bsafety: to live in a safe area	Environmental capital
Participatory process	Bgouvern : to participate in the decision-making processing with respect to my territory Basso: to get involved in local associations Blocaldev: to get involved in the local development	Institutional capital
Cost of living	Bfeeding: to eat at a low cost Blodging: to find housing at an affordable cost Bagri: the possibility of practicing agriculture	Economic capital
Cognitive infrastructure	Rintellec: intellectual level of the inhabitants Ropenmind: open-mindedness of my entourage	Human and social capital

Several adaptations of the Servillo and al. framework appear. The cultural capital dimension disappears to blend in the human and social capital. The latter, itself, doubles up by revealing another dimension: the cognitive infrastructure (e.g. the openness of the inhabitants). Economic capital also doubles up with a general dimension (access to capital, economic activity, water and electricity networks) and a dimension centered on the possibility of living at low cost (the possibility of practicing agriculture, purchasing food and housing at low cost). This initial analysis can be used to adapt or even complete the grid of Servillo et al. (2012) regarding a young population.

### **Nomological validity of the scale**

To evaluate the scale's nomological validity, we investigated the relationship of its individual dimensions to the relevant constructs: the feeling of being able to stay in one's territory (i.e. the perception of control over behavior) and anticipated regrets. For that we conduct confirmatory factor analysis and structural equation modeling with Amos 20.

As indicated in Table 6, the model adjusts well with data. Looking at co-variance between dimensions of territorial capital, we can note that one dimension "cost of life" (variance: 0.968,  $p < 0.001$ ) has a discriminant problem with environmental capital (co-variance: 1.054,  $p < 0.001$ ). This can affect its predictive value.

**Table 6:** Model fits

		prescribed values	CFA	SEM
CMIN/DF	K-Square Divided on the Degree of Freedom	< 3	1.521	1.523
GFI	Goodness of fitness index	> 0.9	0.904	0.902
AGFI	Adjusted Goodness of Fit Index	> 0.8	0.878	0.878
CFI	Comparative fitness index	> 0.9	0,932	0,930
RMSEA	Root Mean Squared Error of Approximation (RMSEA) The mean root of error estimate squares	< 0.08	0,038 [0,032 ; 0,044]	0,038 [0,032 ; 0,044]

The seven dimensions explain 45.8% of perceived behavioral control and 29.5% of anticipated regrets (Table 7). These two variables explain 60.6% of behavioral intention formation (Table 8) with a very strong impact of perceived behavioral control (0.653,  $p < 0.001$ ) and a lowest impact of anticipated regrets (0.292,  $p < 0.001$ ). These results are satisfactory and indicate nomological validity for the perceived territorial capital scale.

**Table 7:** Nomological validity of the perceived territorial capital scale

Dimensions of perceived territorial capital	Dependent variables	
	Feeling of being able to stay in one's territory	Anticipated regrets
Economic capital	ns	ns
Human and social capital	.470***	.385**
Anthropic capital	ns	ns
Cost of living	ns	ns
Environmental capital	ns	.579**
Cognitive infrastructure	.241*	ns



Dimensions of perceived territorial capital	Dependent variables	
	Feeling of being able to stay in one's territory	Anticipated regrets
Participatory process	.342**	ns
R2	.458	.295

\*\*\* p<0.001 \*\* p<0.01 \* p<0.05

**Table 8:** behavioral intention formation and its determinants

	Dependent variable : intention
Feeling of being able to stay in one's territory	.653***
Anticipated regrets	.292***
R2	.606

\*\*\* p<0.001 \*\* p<0.01 \* p<0.05

Four dimensions impact one or the other of the two dependent variables. Human and social capital is the most predictive dimension as it strongly influences both variables (0.470,  $p < 0.001$  and 0.385,  $p < 0.01$ ). Environment capital impacts anticipated regrets with a high score (0.579,  $p < 0.01$ ). Participatory capital and cognitive infrastructure impact perceived behavioral control (0.342,  $p < 0.01$  and 0.241,  $p < 0.05$ ). Therefore, retention of young people on a territory seems to go through policies that aim to increase these four kinds of resources. Policies regarding youth participation in local governance would certainly be targeted in priority, as this item obtains the lowest average (see Table 2). Cognitive infrastructures improvement could be reinforced, for instance, thanks to the development of multimedia centers and / or cultural activities.

## Conclusion

The primary objective of this research was to identify the different sources of value of a rural territory in West Africa. This contribution focused on developing a scale of territorial attractiveness and operationalizing the concept of perceived territorial capital, using semi-structured interviews and the theoretical framework of Servillo and al. (2012). The link with

the SDGs has been taken into account as our goal is to produce a tool that will measure some of these SDGs. Some contributions have been proposed in this context 1) operationalization of the concept of territorial attractiveness with the determination of its dimensions (seven) for young people; 2) assessing nomological validity of the scale on perceived behavioral control, anticipated regrets and, finally, on the intention to stay in the territory (the dependent variable of our model).

This tool presents several interests for the actors; proposing an operational way of measuring the SDGs at the individual level, it can be, for example, mobilized for impact studies regarding sustainable development strategies. It could broaden the range of fair trade assessment tools, if we can isolate fair trade development impact on individual perception of territorial attractiveness. Children whose parents belong to a fair trade cooperative may have better perceptions than those of conventional one's, *ceteris paribus*. However, fair trade is supposed to generate positive spillovers for all local population, so we must suppose that all population perception of territorial attractiveness must be improved when fair trade develop in a territory. Of course, as reality is not that simple, it will be difficult to isolate the specific impact of fair trade on perceived territorial capital. Conducting longitudinal analyzes on particular territories can be useful to approximate this impact at the best. It can also be used to compare the performances (and their dimensions) of different territories.

As this research has refined the analysis of the perceived obstacles and benefits in our specific problematic, the next step in our work will be to get confirmation of the scale on others territories and to test the overall model of the theory of planned behavior (adding attitude and social norms to the model that predict "intention to live here"). Further analysis of the links between theory of planed behavior and Sen's capability theories will also be needed to strengthen the theoretical framework.

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