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Territorial human capital and the economic development of territories: Study socially innovative aspects of cooperatives in the prefecture of Agadir Ida Outanane

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Abstract

This paper is situated within territorial economics, with the noble aim of elucidating the intricate interplay between territorial human capital and the economic advancement of the esteemed Agadir Ida Outanane prefecture, particularly within the social innovation concept. It endeavors to navigate the nuances of theoretical intricacies and empirical analysis tools, all in a concerted effort to address the paramount inquiry: "To what extent can territorial human capital serve as a propelling force for the development of the Agadir Ida Outanane area, and how might social innovation contribute thereto?" In pursuit, we have adopted a methodological approach rooted in deductive reasoning and underpinned by a post-positivist paradigm. Through a judicious synthesis of theoretical constructs and observed realities, we have deftly formulated a hypothetical model that interweaves the concepts of territorial human capital, social innovation, and economic valorization of the territory. This model has been tested on a dataset comprising 180 operational cooperatives in the revered Agadir Ida Outanane area. The discerning findings of this inquiry concur with the existence of substantial and noteworthy contributions among the multifarious concepts under scrutiny.

Keywords: Agadir Ida Outanane, Economic development, Human capital, Social innovation, Territory.

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Contents

Contribution of this paper to the literature
These are the efforts made to collect data from cooperatives in the Agadir Ida Outanane prefecture, given that there are no previous empirical studies dealing with this subject in this area. Theoretical efforts were also made to mobilize the key concepts of our work.

1. Introduction

The concept of territorial human capital is emerging as a critical element in the economic development of territories. In particular, in the prefecture of Agadir Ida Outanane, territorial human capital is of particular significance as a potential lever for the economic enhancement of the region's territory. Whether territorial human capital can function as a locomotive for the development of this prefecture is a major challenge for decision-makers and stakeholders in territorial development.

With this in mind, particular attention is being devoted to social innovation, seen as a key factor in stimulating the dynamics of territorial human capital. Cooperatives, as social and economic organizations, are major players in social innovation in the Agadir Ida Outanane prefecture. These cooperatives, entities based on cooperation and solidarity between their members, can play a crucial role in the economic enhancement of territories by fostering employment creation, local development and promoting the social and solidarity economy.

In this line, this article's primary issue is whether territorial human capital can act as a catalyst for the development of the Agadir Ida Outanane prefecture and, if so, how much social innovation can do so.

In order to investigate the socially innovative features of cooperatives in the Agadir Ida Outanane prefecture and their impact on the economic improvement of the region, a multidisciplinary approach will be used to address this subject. With this in mind, this article analyzes the issues and challenges in promoting territorial human capital as a lever for territorial economic development, focusing on cooperatives as key actors in social innovation in the Agadir Ida Outanane prefecture. To do so, we will adopt a methodological posture based on a hypothetico-deductive approach, including reviewing existing literature and analyzing field data. The results of this research will contribute to enriching our understanding of the social and economic dynamics linked to territorial human capital and social innovation in the Agadir Ida Outanane prefecture and may serve as a basis for the development of policies and strategies for the economic enhancement of territories focused on strengthening human capital and social innovation.

1.1. Human Capital and Social Innovation at the Crossroads of Different Territorial Conceptions

Human capital and social innovation are two key concepts that interact at the crossroads of various territorial conceptions. Territories are spaces where interactions between individuals, institutions and resources unfold complexly, giving birth to specific social and economic dynamics. Human capital, comprising all the knowledge, skills, and talents of individuals, is recognized as a decisive factor in the economic development of territories. At the same time, social innovation, which encompasses new practices, creative approaches and collective initiatives geared at solving social problems, is emerging as a catalyst for the positive transformation of territories.

This section explores the complex and dynamic relationship between human capital and social innovation in the context of diverse territorial conceptions. Thus, we will analyze how territorial conceptions influence how human capital is perceived and exploited in a specific territory through social innovation. By exploring these complex interactions between human capital, social innovation and territorial economic enhancement, we will strive to understand how these elements interact and mutually reinforce each other to foster territories' economic and social development. We will highlight the challenges, opportunities and best practices associated with mobilizing human capital and social innovation in the territorial context. We will highlight the potential synergies between these key concepts to stimulate economic growth, promote social cohesion, and foster territorial sustainability.

1.2. The Territorial Dimension of Human Capital

The concept of territorial human capital has originated in the economic theory of human capital, developed in particular by Becker (1962) and Mincer (1958) who consider that the education, professional training and experience acquired by individuals are investments that can increase their future productivity and income. This theory was subsequently enriched by numerous authors, including Schultz (1961) who introduced the notion of human capital in the context of economic development.

Territorial human capital can be defined as the skills, knowledge and aptitudes of individuals living and working in a given territory and their ability to collaborate and exchange information with other territorial players. This notion was developed in particular by French economists Boutinet (2005) who emphasize the importance of social capital and the relational dimension in building territorial human capital.

Territorial human capital can positively affect a territory's economic and social development. Moreover, according to a study conducted by Boutinet (2005) on the governance of cities, territories with a high level of human capital, particularly in art, culture and new technologies, tend to be more innovative and economically competitive. However, building territorial human capital can be hampered by various factors, such as geographical isolation, lack of educational and cultural infrastructure, or social and ethnic discrimination. Similarly, regions that have suffered significant spatial segregation tend to have less developed human capital and lower economic growth.

In conclusion, territorial human capital is a complex social and economic process involving mobilizing the skills and aptitudes of individuals living and working in a given territory and their ability to collaborate and exchange information with other territorial players. This concept can positively affect a territory's economic and social development, but various structural and social factors can also hamper it.

Ultimately, bringing the concept of territorial human capital closer together leads to the same territorial dimensions of social capital developed by many researchers. These are presented in the Figure 1.

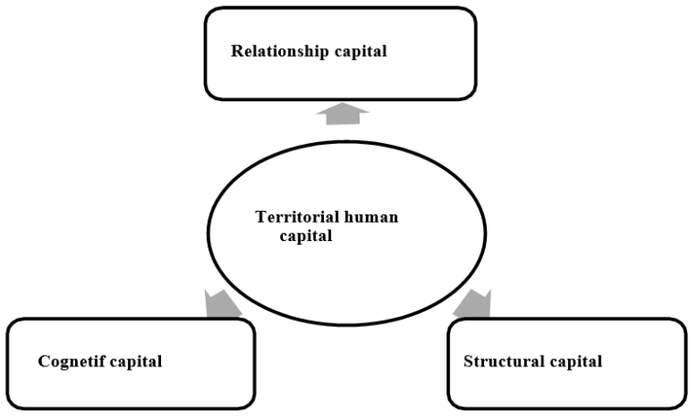

Figure 1. Reconciling the concept of territorial human capital.

New readings focused on social innovation by territorial players, specifically cooperatives, have been developed regarding the nature of players' actions and the tools implemented to organize and innovate in space. These readings run parallel to reflections on territorial human capital and the socioeconomic functioning of the territory. In this section, we will break down social innovation's technical components.

1.3. Social Innovation of Cooperatives

Current discussions on the emergence of refreshed businesses that are better prepared to address the challenge of competitiveness worldwide place a high priority on innovation. No of an organization's status, industry, size, or target market, there is a consensus that innovation is a critical component of success, whether in academic or professional settings.

An orientation towards a post-industrial innovation paradigm is emerging in response to the rising interest in social innovations (Howaldt, Kopp, & Schwarz, 2015). According to this view, a holistic or global approach to innovation could incorporate social innovations alongside technological breakthroughs and economic elements as parts of social transformation (Hochgerner, 2011).

According to Moulaert, MacCallum, and Hillier (2013), Cajaiba-Santana (2014), and Van Der Have and Rubalcaba (2016), the debates dealing with the concept of social innovation reflect the fragmented nature of this theoretical corpus and the ambiguity surrounding the scope and meaning of this concept. Moulaert, Martinelli, Swyngedouw, and Gonzalez (2005) represent one of the first attempts to broaden the discussion of social innovation. They propose three interdependent dimensions:

Responding to unfulfilled social and human needs, improving interpersonal relationships, and empowering people through improved sociopolitical skills and resources.

Cajaiba-Santana (2014) created an analytical paradigm for tackling social innovation more recently. By departing from standard methods, he defines social innovations as new social practices that result from deliberate, purposeful group acts that are directed toward changing how social goals are achieved to bring about social change. However, his study mixes the agency perspective, which emphasizes human actors and their traits as social innovation determinants, with the structural perspective of social innovation, focusing on organization and social structures.

Two characteristics of social innovation are crucial from this angle. First, social innovation continuously creates or improves human capital Edwards-Schachter, Matti, and Alcántara (2012) which is not a tangible consequence but is likely to lead to one eventually. Social innovation should therefore concentrate on creating assets rather than needs. This factor is as vital to social innovation's success as the result (Moulaert et al., 2013).

According to this interpretation of social innovation, learning and empowerment are both the causes and the results of well-being. In addition, only some social learning, networking, or collaborative processes result in social innovation for us to say that social innovation was practical. Following up on these observations, we can draw territorial stakeholders into the discussion of social innovation by mentioning three key elements: Mobilization and collective management of territorial resources, Remediation of social problems, and Dynamism of economic and social.

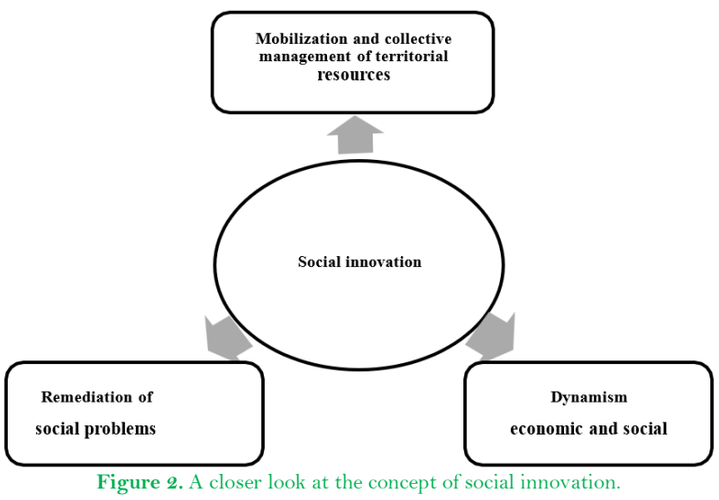

Figure 2. A closer look at the concept of social innovation.

Figure 2 shows how the concept of social innovation can be reconciled. However, social innovation alone is not enough: the mechanisms of territorial human capital are a necessary condition for achieving the economic enhancement of a territory. Hence, cooperatives, with their many facets, can act as a springboard to guarantee better spatial registration of human capital and social innovation, in a context of economic enhancement.

1.4. Economic Appreciation of the Territory

In the framework of territorial development strategies, the economic development of territories is a key approach, reflecting a developing trend aimed at supporting the enhancement and growth of the territories in a way that benefits both parties. Territorial valuation has made considerable theoretical and practical advancements since its inception in 1975. Due mainly to the globalization of the economy, which led to an increase in urban areas, the favorable economic environment throughout the 1980s drove its expansion. This new reality has compelled the territories to stand against global competition and stand out by promoting their territorial specificities, which are now valued at their full economic potential. Therefore, to differentiate their territory from other territories, territorial decision-makers are now conscious of the significance of respecting local actors and their area (Howaldt et al., 2015).

The goal of territorial valorization is to promote the territorial object and answer the requirements of the territorial stakeholders. It is a communal process encompassing all governmental, private, and civil players. It positions itself as a method for formulating and putting into practice a territorial development strategy applicable in market settings and directly related to concerns about economic development. Territorial valuation is another strategic strategy for connecting with customers or between local governments and the residents they want to draw. Having social capital built up through interactions conducted in the territory allows for the adjustment of territorial development policies following the expectations of the local population.

As we continue with these findings, we can draw closer to the idea of the territory's economic appreciation by mentioning three factors, namely:

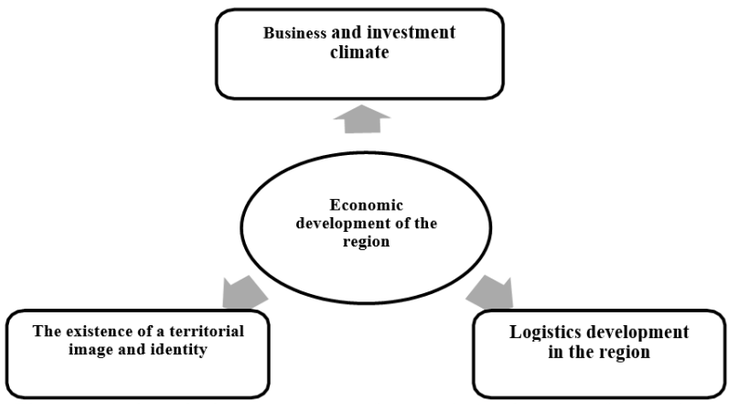

Figure 3. A closer look at the concept of economic development of the region.

Figure 3 shows how the concept of economic development of the region can be reconciled. The literature review carried out throughout this section has enabled us to draw up an analytical framework describing the three key concepts and the underlying hypothetical links, from different theoretical perspectives, which can serve as a reliable basis for developing measurement scales and validating them. In this respect, the research model resulting from the back-and-forth between theory and observed reality can be represented in the Figure 4.

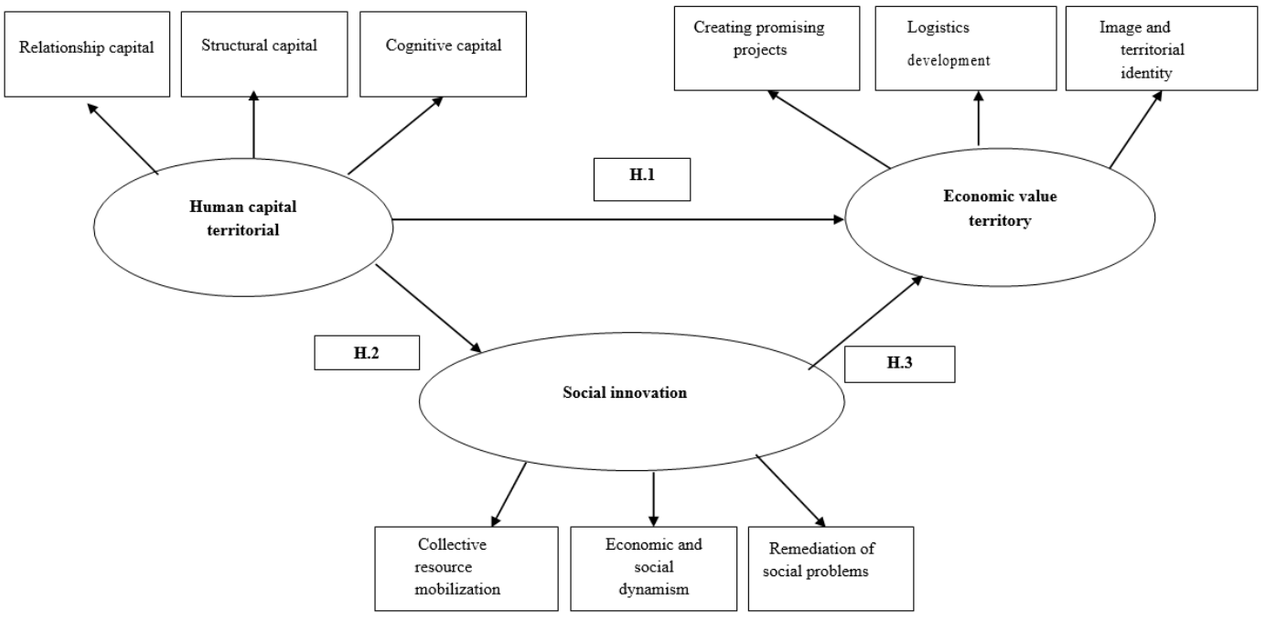

Figure 4. Search model.

To test our research model, we capitalize on the main concepts and sub-concepts. This is one of the most important steps. Within this framework, we have mobilized twenty-two measurement items referring to aspects that characterize the forms of territorial human capital, the economic enhancement of the territory, and social innovation. These measurement items will be coded using a five-point Likert scale. The following Table 1 shows the different items used to reconcile the latent concepts studied:

Table 1. Operationalization of the concepts studied.

Latent concepts	Measurement scales	Codes
Territorial human capital	The sharing of the same culture, values and values similar lifestyles	COGC_1
	Sharing the same philosophy and approaches for business relationships	COGC_2
	A shared vision with common goals and objectives compatible lenses	COGC_3
	Frequent, intensive, close personal interaction	RELC_1
	Respect and mutual trust	RELC_2
	Dissemination and exchange of information within the business networks	STRC_1
	Interaction at different territorial levels and at in a variety of ways	STRC_2
Economic development of the region	The region's investment climate is conducive to economic valorization	CPP_1
	Spreading the entrepreneurial culture means setting up value of the territory	CPP_2
	Promote and support projects in the following areas to enhance the value of the region	CPP_3
	The presence of a physical infrastructure contributes to the territory enhancement	LD_1
	The development of logistics platforms is a a form of land enhancement	LD_2
	Modernizing access structures to the region enables better economic value	LD_3
	The existence of a territorial identity contributes to the economic valorization	ITI_1
	Territorial branding enhances the value of the Territory	ITI_2
	Preserving the region's heritage enhances the territory	ITI_3
Social innovation	Cooperatives optimize financial resources and non-financial	CRM_1
	Cooperatives manage skills and knowledge based on their activities	CRM_2
	Promote and support projects in the following areas to enhance the value of the region	ESD_1
	The development of social care facilities a form of land enhancement	ESD_2
	Territorial projects contribute to employability young people and women	RSP_1
	Territorial projects contribute to improving the well-being of the population	RSP_2

We now turn to the justification of our methodological choices and the description of our research field to give more deontology to our research.

2. Methodological Choices and Tools

Our methodology follows the post-positivist paradigm and is based on a logical approach. This method entails going "back and forth" between field observations and abstract theory. Without initially examining causal linkages, the researcher develops his or her study topic based on accepted theoretical ideas, leading to the generation of hypotheses that will either be confirmed or disproven. Through an extensive analysis of concepts and theoretical and empirical literature, we could answer our dilemma by consulting several structuring works directly or indirectly related to the key terms. This allowed us to develop an adequate analytical framework. We continued to model the data following the logic outlined by the post-positivist paradigm used in this study to understand better issues connected to human capital and social innovation, which will ultimately result in the economic improvement of the region. Due to the multiplicity of the entities interacting there, whether institutional, economic, or civic, we have chosen the prefecture of Agadir Ida Outanane as our research area. In Morocco's economic and political structure, Agadir plays a significant role. The fact that we uncovered numerous cooperatives that are important to the growth of the Moroccan economy thanks to access to this study field is equally noteworthy.

It was controlling the prefecture of Agadir Ida Outanane. Therefore, many cooperatives must participate in the area's economic development, which happens gradually over many years. It would have been essential to conduct many surveys among a representative sample of the different cooperative groups to understand this process comprehensively. Selecting a target group is still inappropriate for our study because we must select a sample for the survey's aims and follow statistical standards. However, all of the cooperatives present in the prefecture of Agadir Ida Outanane serve as our target population—several people thought to be known and limited. Therefore, to highlight the characteristics of the respondents, pilot research among several randomly chosen cooperatives is required as part of the sampling approach. More specifically, our pilot study allowed us to compute the central tendency and dispersion properties underlying the variable of interest, "Annual frequency of participation in territorial projects over the last ten years," and validate the complete questionnaire. On the same page, 52 cooperatives provided information about how many territorial projects they had taken part in during the previous ten years and their involvement frequency annually (Number of participations/10 years).

The goal is to determine the sample size calculation method and assess the normality of the distribution of participation frequencies. We will calculate according to the suggested method if the distribution is regularly distributed. If so, we will fall back on the Bienaymé-Chebyshev Inequality innovations, which were created for populations in which the distribution of the relevant variable was not known.

The interest variable's mean, median, and mode are equal at first glance, indicating that the distribution is normal. However, we ran the Kolmogorov-Smirnov and Shapiro-Wilk normality tests to sharpen our statistical thinking. As the P-value is over the 5% significance level, it has turned out that the null hypothesis, which asserts that the distribution is normal, is verified in both instances. As a result, we may affirm that the distribution of the relevant variable is Gaussian.

In a similar vein, in order to determine the sample size for a limited population with a normal distribution, it is required to use the calculation method that statisticians prescribe for this purpose, which is as follows:

$$n = \frac{Z^2_{1-\frac{a}{2}} Var(x) N}{\varepsilon^2 N + Z^2_{1-\frac{a}{2}} Var(x)}$$

- x: The variable of interest.
- ε: Desired precision.
- n: Sample size.
- N: Population size.
- Z: The value of the reduced centered variable for a probability of $1 - \frac{a}{2}$;
- α: significance level.

It is now essential to move on with sample extraction while considering the previously developed calculation method and parameters. In this regard, it is essential to consider the strata and sampling lists to guarantee the sample's applicability and representativeness. To this purpose, the Table 2 clearly lays out the data that went into choosing the sample and the calculating methods applied to choose the ideal number of cooperatives to survey. Extreme diligence and rigor must be used during this vital investigation phase.

Table 2. Sample size calculation and extraction procedures.

Parameter	Symbol/Formula	Value
Variance of variable of interest	Var (x)	28.293%
95% probability threshold	$Z_{1-\frac{a}{2}}$	1.96
Accuracy required	ε	5%
Population	N	306
Sample	$n = \frac{Z^2_{1-\frac{a}{2}} V(x)}{\varepsilon^2 N + Z^2_{1-\frac{a}{2}} V(x)}$	180 Cooperatives

We used a questionnaire to survey about 180 Agadir Ida Outanane prefecture cooperatives. To evaluate the proposed model and get some insight into how human capital has influenced the growth of the Agadir Ida Outanane prefecture, extrapolation of the collected data was done.

3. Presentation and Discussion of Results

This quantitative study employed factorial and structural analyses as part of a strict two-phase methodological procedure. We chose to use the method suggested by Churchill Jr (1979) for the objectives of this study. First, the measuring scales underwent an exploratory factor analysis. The significance of Kaiser-Meyer-Olkin (KMO) and Bartlett's Sphericity tests was used to combine the findings of several principal component analyses. Evrard et al. (2009) recommended eliminating items with factor contributions below 0.5. Finally, to determine the dependability of the measurement scales, Cronbach's alpha coefficients were computed.

The Partial least squares (PLS) approach, which is more appropriate than covariance-based methods regarding objectives and uses limitations, was then utilized to assess our model. Indeed, it enables us to test emerging models, account for data with non-normal distribution, and work with tiny samples. The remainder of our study will go into great detail on the outcomes of these analyses.

3.1. Presentation of Data Analysis Results

Therefore, it is crucial to thoroughly evaluate the quantitative measurement tools by evaluating their validity and reliability before building the structural equation modeling (SEM) model. This ensures the scales used to measure the constructs they evaluate. In light of this, we chose to take a thorough approach, purifying and testing the homogeneity of the scales included in the questionnaire using exploratory factor analysis. The purpose is to use principal component analysis to see whether these scales can effectively assess the variables they are intended to measure and whether the items are grouped coherently into components.

3.1.1. Purification of the Territorial Human Capital Measurement Scale

This makes it necessary to evaluate the data's dependability before beginning a factorial analysis. To assess the homogeneity of the measurement items with the factors of the understudied construct, it is important to investigate the factor structure and goodness-of-fit indices resulting from an orthogonal Varimax rotation. The Table 3 displays the findings of this analysis.

Table 3. Summary of the PCA on the "Territorial human capital" scale.

Representation quality		**Correlation between item and factor**		
		Factor 1	**Factor 2**	**Factor 3**
COGC_1	0.8230	0.848	-	-
COGC_2	0.8261	0.864	-	-
COGC_3	0.8141	0.830	-	-
RELC_1	0.4032	-	0.302	-
RELC_2	0.7351	-	0.851	-
STRC_1	0.3918	-	-	0.332
STRC_2	0.8537	-	-	0.848
Interpretations		Cognitive capital	Relationship capital	Structural capital
Indices factorization	Values reviews	Calculated values		
Eigenvalue of factor used	> 1	2.531	2.105	1.727
% Of variance explained	-	30.317	22.174	18.243
% Of variance cumulative explained	> 60%	30.317	52.491	70.734
Cronbach's alpha	> 0.6	0.991		
KMO index	> 0.5	0.867		
Meaning Bartlett	< 0.05	0.000		

In light of the findings, it is important to note that the correlations show values more than 0.5, with the exception of the "RELC_1" and "STRC_1" items, indicating that these variables share traits. Purifying them is necessary as a result. The value of 0.867 for Kaiser's test for overall integrity between variables allows us to evaluate sampling accuracy. It has been demonstrated that more variables can be factored the closer this index is to 1. According to the research of Evrard and Roux (2009), the measuring scales also provide a high level of dependability, with a respectable Cronbach's alpha coefficient of 0.991.

3.1.2. Refining the Scale for Measuring the Economic Value of the Region

By evaluating the caliber of the factorial contributions, we will use the same principal component analysis (PCA) approaches to examine the validity and homogeneity of the items with the factors on the scale measuring the economic worth of the territory. The factor structure was clearly defined and the goodness-of-fit indices were tolerable as a result of orthogonal Varimax rotation (see Table 4).

We decided to remove the "CPP_1", "ITI_1", and "ITI_3" items from the factor space since their quality of representation in the factor space is unsatisfactory. Instead, we chose to stick with the remaining measurement variables. The other items' and their components' substantial correlations point to low discriminant validity. The measurement scale in use satisfies the validity requirements based on sample precision and reliability tests.

3.1.3. Purification of the Social Innovation Measurement Scale

Six items that correspond to cooperatives' socially creative features concerning a previously examined component make up our operationalization of the social innovation construct. Given that structural equation modelling would consider this construct, adding this latent variable represents a methodological and statistical difficulty. In this regard, we examined the scale homogeneity in the presence of the factorization parameters. The Table 5 shows the findings of the principal component analysis.

Table 4. Summary of the PCA on the "Territory economic enhancement" scale.

Representation quality		**Correlation between item and factor**		
		Factor 1	**Factor 2**	**Factor 3**
CPP_1	0.4070	0.318	-	-
CPP_2	0.8115	0.890	-	-
CPP_3	0.8282	0.822	-	-
LD_1	0.8221	-	0.871	-
LD_2	0.8365	-	0.854	-
LD_3	0.8051	-	0.839	-
ITI_1	0.3784	-	-	0.429
ITI_2	0.7864	-	-	0.780
ITI_3	0.4131	-	-	0.327
Interpretations		Creation of promising projects	Logistics development	Image and territorial identity
Indices factorization	Critical values	Calculated values		
Eigenvalue of factor used	> 1	2.345	2.041	1.631
% of variance explained	-	30.244	22.371	17.241
% of variance cumulative explained	> 60%	30.244	52.615	69.856
Alpha de Cronbach	> 0.6	0.881		
KMO index	> 0.5	0.844		
Meaning Bartlett	< 0.05	0.000		

Thanks to the factorial analysis, we maintained the "social innovation" dimension in the operationalized form that it has been given. Since the factorization parameters are acceptable, keeping this dimension is possible without bias. We improved the hypothetical model by considering the purified components thanks to the three exploratory factor analyses, which helped us develop a statistically representative specification for the structural equation model.

Table 5. Summary of PCA on the "Social Innovation" scale.

Representation quality		Correlation between item and factor		
		Factor 1	**Factor 2**	**Factor 3**
CRM_1	0.8241	0.825	-	-
CRM_2	0.8012	0.851	-	-
ESD_1	0.8081	-	0.844	-
ESD_2	0.8555	-	0.805	-
RSP_1	0.8133	-	-	0.852
RSP_2	0.8818	-	-	0.876
Interpretations		Information availability	Steering and support	Intentional coordination
Indices factorization	Values reviews	Calculated values		
Eigenvalue of factor used	> 1	2.822	2.349	1.995
% of variance explained	-	30.788	21.402	18.234
% of variance cumulative explained	> 60%	30.788	52.190	70.424
Cronbach's alpha	> 0.6	0.855		
KMO index	> 0.5	0.851		
Meaning Bartlett	< 0.05	0.000		

Testing quantitative measuring tools' validity and reliability is required before structural equation modeling (SEM) modeling. Therefore, exploratory component analysis was done to clean up and test the scales' homogeneity and to see if they accurately assessed the construct they were meant to measure. According to the results, most of the coefficients were far from their critical values, which attested to the construct's good fit.

3.1.4. Structural Equation Modeling

A graphic depiction of the overall model's measurement method is necessary for the model's specification, which is the first stage of structural equation modeling (SEM) modelling. In this stage, the model's various components are defined, along with the presumed relationships between them. This step is essential before moving on to the other structural equation modeling (SEM) modelling steps, such as model identification, model estimation, model goodness-of-fit evaluation, and, lastly, model confirmatory analysis. In our study, we tested our model using the SmartPLS v.4 process and current advancements in the Partial least squares (PLS) algorithm.

Figure 5 shows the global specification of our model. The identification of the model, which consists of seventeen observable variables and is designed to measure two latent factors in accordance with the theory, is the second step in our SEM modeling process. According to Schumacker and Lomax (2004) advice, we evaluated the order condition by making sure there were more degrees of freedom than zero. With a positive degree of freedom (dll=143), this order requirement is in fact verified for our model.

The next step in our methodology entails estimating the model over all statistical units, or the 180 cooperatives functioning in the Agadir Ida Outanane prefecture, using the partial least squares factorial algorithm. This process allowed us to get the Figure 6, which illustrates the outcomes.

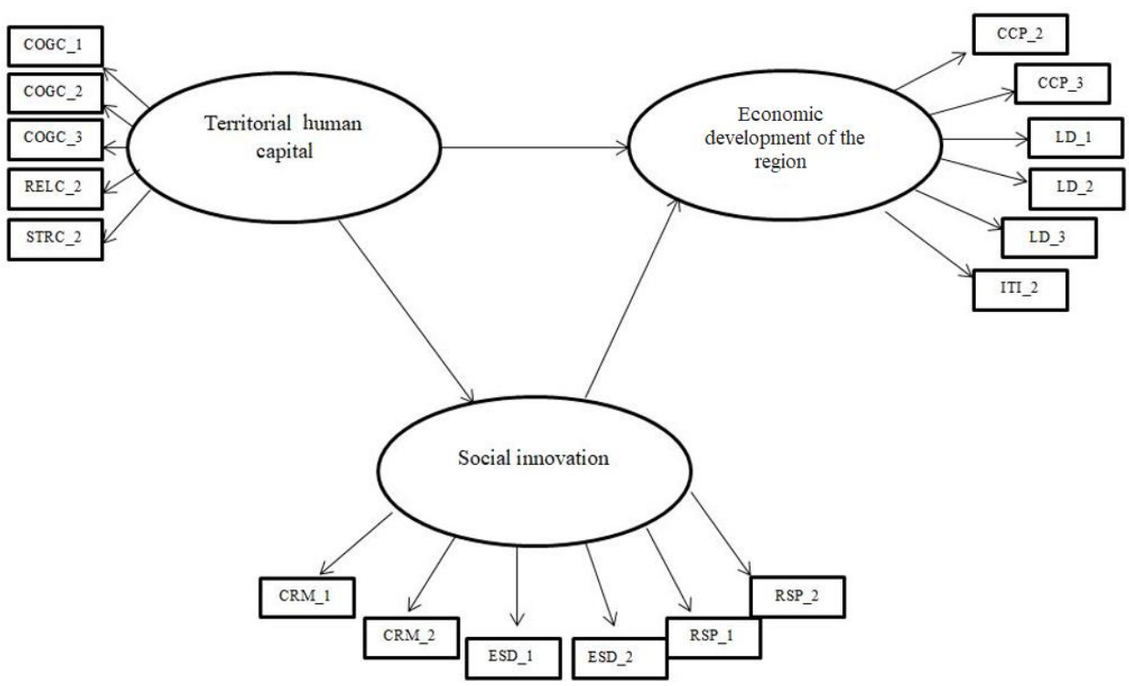

Figure 5. Global model specification (SmartPLS V.4).

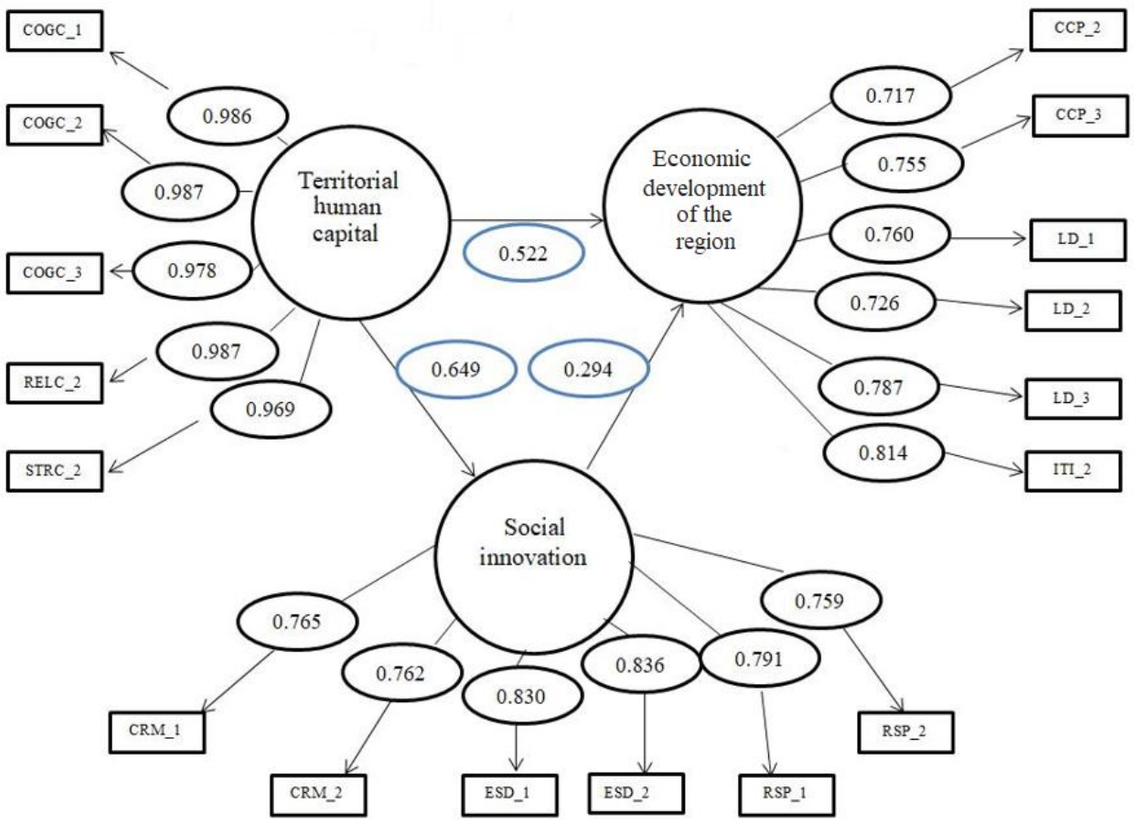

Figure 6. Global model estimation (SmartPLS V.4).

The results of estimating the model parameters show that the majority of the employed measurement items had loading factors that were more than 0.7. It is possible to evaluate the overall model's goodness of fit based on how effective it is at explaining the data. In this regard, it's crucial to assess the discriminant and convergent validity of the model. Calculating one or two metrics, such as Cronbach's alpha and the internal consistency metric created by Fornell and Larcker (1981) is required for convergent validity. The generated results can be interpreted similarly, and Nunnally (1978) methodology can likewise be used.

The average extracted variance shared between the construct and its measurement markers is used to evaluate discriminant validity. The variance between the construct and the other constructs in the model must be bigger than this amount.

Chin (1998) suggests an average variance extracted (AVE) greater than 0.5 in a similar vein. The correlation matrix, which comprises the correlations between the constructs in the components on the lower left of the matrix diagonal and the values of the square root of the AVE determined for each construct along the diagonal, can be used to demonstrate these elements. The correlation matrix is presented in the Table 6.

Table 6. Discriminant validity by AVE of the model.

Latent constructs	AVE	Territorial human capital	Social innovation	Economic development of territory
Territorial human capital	0.964	0.982	-	-
Social innovation	0.626	0.649	0.791	-
Valuation the region's economy	0.595	0.713	0.633	0.761

As a result, we put our best effort into thoroughly assessing the whole model using the metrics and crucial values suggested for this purpose. In order to do this, we provide the results of several critical indicators, including Cronbach's alpha, composite reliability, mean extracted variance, coefficient of determination R2, and goodness-of-fit index Gof, in a detailed Table 7.

Table 7. Indicators for assessing global model fit.

Latent constructs	Alpha de cronbach	Reliability composite	AVE	R^2	Index Gof
Territorial human capital	0.991	0.992	0.964		
Economic development of territory	0.881	0.891	0.595	0.559	
Social innovation	0.855	0.909	0.626	0.422	0.597

From the results obtained, it appears that our model offers a satisfactory quality of representation with regard to the criteria recommended by data processing specialists. However, to confirm the robustness of our results, we need to carry out a bootstrap analysis. This method will enable us to assess the significance of the relationship between territorial human capital, territorial enhancement, and social innovation in cooperatives, in various scenarios. The results of this analysis are presented in the Table 8.

Table 8. Bootstrap estimation of causal model and hypothesis testing.

hypotheses	β (Correlation coefficient)	t-student (Bootstrap)	p-values	Decision
H1. Territorial human capital => Economic enhancement of the territory	0.522	5.213	0.000	Validated
H2. Territorial human capital => Social innovation	0.649	8.672	0.000	Validated
H3. Social innovation=> Local economic development	0.294	2.549	0.001	Validated

The inferences from the Bootstrap analysis findings indicate the positive and significant contributions made by the territory's human capital to social innovation and the equivalent contributions made by social innovation to the territory's economic development. Nevertheless, these results prevent us from making a definitive claim about the mediating function of social innovation in the connection between territorial human capital systems and economic valorization. As a result, it makes it logical to run independent regressions using Cohen, Maiersperger, Gower, and Turner (2003) recommended methodology.

The traditional illustration of a mediator effect entails the manipulation of three different variables: the independent variable (territorial human capital), the dependent variable (territorial economic development), and the mediator variable (social innovation). Utilizing standardized correlation coefficients, we may evaluate the correlations between these variables. The existence of the mediation effect was verified using a four-stage study. The Table 9 provides a summary of the different regression steps.

Table 9. Mediation test: Territorial human capital → social innovation → economic enhancement of the territory.

Regression	Regression coefficients (+ T-test value)	Decision
Territorial human capital => Economic development of the region	C1= 0.823; t =15.241	Presence of the mediator effect
Territorial human capital => Social innovation	C2 = 0.651; t = 8.064	
Territorial human capital + Innovation social => Economic development of the region	C3 = 0.521; t = 4.438 C4 = 0.297; t = 2.603	
Mediating effect: • C1 > C3: the mediator effect is established • C3 is relatively low, but significant: mediation is partial		

In order to provide a robust response to the issues raised, we plan to discuss the main results obtained from the literature review.

3.2. Discussion

After this analysis, it is evident that combining a theoretical approach with a field study provides this research with a significant contribution to the debate over territorial human capital concerning cooperatives' socially innovative features and territorial valorization.

Any present research into economic valorization must consider how social innovation has evolved, at least in terms of the goals underpinning its current configuration, to promote its success.

According to the study's findings, a city's economic value—in this case, the prefecture of Agadir Ida Outanane—is positively and strongly (= 0.522) influenced by its human capital.

This study's findings enable us to conclude that human capital contributes positively and significantly (= 0.522) to the growth of the Agadir Ida Outanane prefecture's economy.

The cooperatives in the Agadir Ida Outanane prefecture have long had access to a consequent relational and cognitive potential that structures their contribution to the enlightenment if we view human capital strictly in terms of the mode of production and territorial regulation based on the management of territorial affairs negotiated between the representatives of the urban government and the dominant economic players.

However, the findings of this study suggest that fostering an entrepreneurial spirit, building physical infrastructure networks, and protecting the region's cultural legacy are what the Agadir Ida Outanane prefecture depends on most for its economic development. The Agadir Ida Outanane prefecture has been able to leverage the diversity of its functions, taking advantage of its many natural assets and the legendary dynamism of its population, and leveraging its strategic geographic position as a pivotal point between the north and south of the country, making it highly attractive to national and international investment.

It should also be stressed that territorial human capital, when seen only in terms of enhancing cooperative capacities, may be considered a risk or even a threat to democracy and citizenship. In fact, within the context of talks between cooperatives, the public interest could be demoted to the status of a category interest, among others. It would therefore add to the subjection of areas to an exclusive economic logic to confuse democracy and management. Therefore, fostering a network of cooperation and coordination at the prefecture level is essential through sectorial initiatives carried out by outside government agencies. Such a plan, which significantly incorporates social innovation techniques, should be a policy component to refocus cooperatives' activity on enhancing this network, notably in the Agadir Ida Outanane prefecture.

Based on the findings, social innovation must now partially mediate a shift to successfully increase the value of the area through the development of cooperative networks.

This result is not unexpected given that a comparison of the empirical parameters of the shift from human capital to value enhancement through social innovation to reality demonstrates that it is reasonable and realistic to suggest, with the aid of a set of standard measures, an assured path towards an efficient system of value enhancement for the Agadir Ida Outanane prefecture. However, it must be acknowledged that such a transformation is complex to complete, given the significant challenges in running the prefecture and the

complexity of the coordination, engagement, and involvement task, even within cooperatives. Any suggestion along these lines would only be indicative and not prescriptive because the re-founding of the territorial unit is a project that needs to be contextualized and carried out while considering the numerous environmental factors.

4. Conclusion

As part of this study dedicated to the contribution of territorial human capital forms to the development of the territory's prefecture, we have developed a series of theoretical conceptions, definitions, and analytical tools relating key concepts and underlying hypothetical links. Our work is structured around three axes:

In the first section, devoted to the conceptual genesis and theoretical meanings of key concepts, we set out the conceptual and evolutionary workings that enable us to propose concrete definitions before highlighting the measures that can be identified. Subsequently, in the second section, we presented the methodological choices and the research field, carrying out a questionnaire survey among a sample of cooperatives operating in the Agadir Ida Outanane prefecture for a total of 180 definitive grids, whose data were extrapolated for the envisaged analyses.

The third axis consisted of presenting the results of analyses carried out using recent developments in structural equation modeling under the SmartPLS procedure. These results enabled us to draw conclusions on the contribution of territorial human capital to the economic value of the territory. In fact, there are many indications that the relationship between territorial human capital mechanisms, the socially innovative practices of cooperatives on the one hand, and the economic enhancement of the Agadir Ida Outanane prefecture on the other, evolves in a win-win logic, where the gain of one represents the gain of the other, and where the strengthening of one is not to the detriment of the unity and integrity of the other. This is supported by the state of transition of the territorial environment and the mutations of various kinds—social, institutional, and managerial—in which the prefecture of Agadir Ida Outanane is evolving. These elements testify to the need to diversify players and establish new standards to reinforce the transition from a monocentric conception of the territory to an economic valorization based on a polycentric conception of valorization. The territorial environment is in a state of transition, and the Prefecture of Agadir Ida Outanane is undergoing a variety of changes that are social, institutional, and administrative in nature. These factors show the necessity of diversifying actors and establishing new norms to strengthen the shift from a territory with a monocentric design to one with an economic valuation based on a polycentric valuation design. Despite the research's contributions, it is important to relativize the conclusions reached as a result of several investigational technique constraints, particularly the challenges associated with data collection from cooperatives. We suggest new research directions to improve the work as a result of exposing these limitations. To this end, we are considering conducting a study that involves not only the Prefecture of Agadir Ida Outanane but also all the cooperatives involved in the management of territorial affairs in the Souss Massa region in order to provide answers to the questions underlying the relationship between the triptych of human capital, social innovation, and economic appreciation of the territory.

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