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The Social and Solidarity Economy, a New Solution to Decrease Unemployment in Morocco? Case of Cooperatives in the State of Tangier Tetouan Al-Hoceima.

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Abstract: *In recent years, the Social and Solidarity Economy (SSE) has developed profusely in Morocco. Today, it is considered as a real instrument capable to provide solutions to the various socio-economic problems. In fact, the actors of the SSE, more specifically "the cooperatives", create annually tens of thousands of jobs for the benefit of the most marginalized individuals. The aim of this scientific article is to show how important SSE is to decrease unemployment, and the role that cooperatives play to create job opportunities in the state of Tangier, Tetouan, Al-Hoceima (TTA). The results of this research, based on this study, have allowed us to come up with some strategic orientations that are necessary to create economic and social solutions which will lead to the development of the SSE and the decline of unemployment.*

Keywords: Social and Solidarity Economy, Cooperatives, Labour Economy, Unemployment, Econometrics.

JEL Codes: B23; E11; E12; E13; E24; J01; P13.

1. Introduction

Recently, the Moroccan vision has increasingly focused in the Social and Solidarity Economy (SSE) and its dimensions, which bring together social, economic and environmental objectives in an integrated and balanced way. This allows the actors of the SSE to better understand the socio-economic problems of the populations concerned.

The purpose of this work is to make economic analyses that will enrich our understanding of the SSE and its role in the decreasing of unemployment in the state of Tangier, Tetouan, Al-Hoceima (TTA). The results and recommendations will be useful for the scientific community and researchers in economics to better understand the link between the SSE and unemployment.

Beyond the scientific contribution, the conclusions of this research can also be used locally and nationally by policy makers, who are in charge with the implementation strategies and action plans, as a scientific basis for developing the SSE sector in Morocco. These results could also be useful for the leaders of cooperatives aiming to promote SSE actions.

The problem of unemployment depends on several quantitative and qualitative factors. The growth of job seekers can be explained by population growth, the age pyramid, the number of graduates, the illiteracy rate, etc. In fact, the Moroccan population has increased from 32 million in 2011 to 36 million in 2021, In the same year, the age pyramid shows a predominance of young people, 60% of whom are under 35 years old

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and 44% are under 25 years old (HCP, 2021). According to projections for 2026, the population is estimated to be around 38 million, with an annual average increase of 347,000 people (HCP, 2021)[1]. The number of graduates continues to grow, from 27,000 in 1999 to 141,558 in 2019 (MNE, 2021)[2]. Certainly, the unemployment rate of graduates increased from 15.7% to 18.5% between 2019 and 2020 (HCP, 2021). Concerning labor demand, unemployment is mainly due to the growth of GDP, the existence of the informal sector[3], the effectiveness of public and private investment, the social security system, the quality workforce, the activity and financial health of companies, the costs of the recruiting process.

In Morocco, the unemployment rate is increasing. Between 2019 and 2020, it rose from 9.2% to 11.9% nationally, from 12.9% to 15.8% in urban areas, and from 3.7% to 5.9% in rural areas (HCP, 2021). Moreover, the growth of the unemployment rate seems paradoxical in Morocco; on the one hand, the Moroccan economy has experienced sustained economic growth for nearly two decades. On the other hand, the economic growth rate has dropped by an annual average of 4.8%[4], between 2000 and 2009, to 3.5% between 2010 and 2019. Low job creation[5] characterizes both decades, especially for youth. At the same time, the average of population growth rate was 1.2%[6] between 2000 and 2019. In the same vein, "the *active population* [7]*is full with more and more young job seekers, thus exerting pressure on the labor market*" (CSMD, 2021). To this end, we can say that the evolution of economic growth in Morocco is much higher than that of demographic growth. This situation indicates that the gap between the growth path and employment dynamics in Morocco is widening, it also reflects the incapacity of the economy to provide jobs. The analysis of the labor market seems necessary to identify the causes of the increase of unemployment rate in the state of Tangier, Tetouan, Al-Hoceima, despite the achievement of sustained economic growth and the efforts of the State to reduce the acuteness of this phenomenon.

Alongside the public and private sectors, is it possible to make the third sector[8], the Social and Solidarity Economy (SSE), a third option that is capable to create more jobs for the active population, in particular youth ? Moreover, the analysis of certain experiences reveals the capacity of the SSE to promote employability, to take up social challenges and to accompany the countries towards the realization of a sustainable, inclusive and human-centered development. Let us cite the example of France where the SSE made it possible to ensure employment for 2.3 million employees in 2019, i.e. 10.5% of employment in France (Solidaire, 2020). In Spain, the SSE provided 12.5% of employment in 2019 (Social, 2021). As for the Moroccan economy, the SSE was able to provide 5% of employment in 2019. This rate is estimated at 7.5% in 2020, or the equivalent of 175,000 jobs (MTHSSE, 2021)[9].

In view of the above, we attempt to assess the contribution of the Social Solidarity Economy in terms of job creation and to demonstrate how it could lead to the reduction of the unemployment rate in the Tangier-Tetouan Al-Hoceima state. This study is based on econometric modeling of which the aim is to study the relationship between SSE and employability in this state. The main component of the SSE is the cooperative sector. In 2020, the number of cooperatives in Morocco amounts to 40,531 of which 3,065 are installed only in the TTA state (ODCO, 2021).

The article revolves around the following question: What is the impact of the SSE, including its cooperative component on the evolution of employment in the state Tangier-Tetouan-Al Hoceima (TTA)?

[1] HCP: High Commission for Planning.
[2] MNE: Minister of National Education, Vocational Training, Higher Education and Scientific Research.
[3] Approximately 80% of employed persons in 2015 were employed in the informal economy (HCP, 2017)
[4] This rate is calculated by the author of this article based on the GDP values available on the HCP website.
[5] On average, the number of net jobs created between 2010 and 2019 is 69,000 jobs compared to 144,000 jobs over the period 2000-2009, according to the HCP databases.
[6] This rate is calculated by the author of this article based on the evolution of the population of Morocco by calendar year. The data are available on the HCP website.
[7] The working age population is expected to reach 35.8 million in 2050 compared to 24.6 million in 2015 (ONDH,2019)
[8] The "third sector" refers to all the actors (associations, cooperatives, mutuals) that carry out economic activities with a social aim, organized in an autonomous way and managed in a collegial manner, with a limited profitability and on a local scale with a strong involvement of the communities concerned
[9] Ministry of Tourism, Handicrafts and Social and Solidarity Economy

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In order to solve this problem, we will adopt a four-part plan. First, we will begin with a review of the literature on the different theories of unemployment and the social and solidarity economy in order to highlight the main concepts used and provide a theoretical basis for the different hypotheses formulated. Next, we will present a descriptive analysis of the statistical data inherent to the unemployment rate and the cooperatives in the studied state. We will then discuss the results of the econometric models. And finally, we will conclude our article with the main contributions of this research, its limits and the future perspectives of this scientific article.

2. Literature review and conceptual framework

2.1. The concept of unemployment

2.1.1. The statistical point of view

Unemployment is the share of the unemployed in the labor force aged 15 and over. This rate is obtained by dividing the number of the unemployed by the number of working people aged 15 and over (HCP, 2021). As an indicator, it is intended to inform economists and politicians about the situation of the labor market and to guide their decisions on employment policy. However, the elements used to calculate this indicator, which is the unemployment rate, must be representative of the situation in the labor market. When we take the example of a developing country such as Morocco, where the informal economy is widespread, the reliability of the unemployment rate depends on the methodology[10] and assumptions used to contain it in an indicator that should represent the reality of the labor market.

As defined by the International Labour Office (ILO), an unemployed person is "a person aged 15 years and over who simultaneously meets three conditions: 1- Being unemployed during a given week; 2- Being available to take a job within two weeks; 3- Having actively searched for a job in the last four weeks or having found a job that starts in less than three months" (Chardon & Goux, 2003). This definition is accepted by many countries around the world. However, it has limitations that correspond essentially to its basic assumption and to the methodological and statistical limitations that result from its definitional criteria. Indeed, the definition of the unemployment rate assumes of a tripartition of the population between inactivity, unemployment and employment (Freyssinet, 2004). In other words, the ILO definition assumes that the population must be divided into three groups: the inactive[11], the unemployed[12] and the employed[13]. For this definition to be relevant, the individual must belong to only one group at a time. It is difficult to distinguish between the unemployed and the employed, because being in the employed population does not stop with the exercise of an Income Generating Activities (IGA) but requires the satisfaction of a set of criteria that define the status of the wage earner.

Based on the ILO definition that states that the employed person is one who has *"a salaried or non-salaried job"* and referring also to the HCP definition that defines the employed person as *"a broad concept that encompasses all types of jobs, including casual work",* we can argue that counting informal workers as

[10] The methodology used by the HCP is as follows:
1. Sampling: three-stage stratified survey, sample size: 90,000 households of which 30,000 are rural.
2. Data collection in the field:
2.1- Interview method: survey conducted by direct household interview by HCP stateal staff;
2.2- Fieldwork duration: collection spread over the whole year;
2.3- Survey conducted by the Computer Assisted Data Collection System.

[11] According to the HCP, an inactive person is any person who is neither employed nor unemployed. It can be a pupil, a student, a housewife, a pensioner, etc.

[12] According to the HCP, an unemployed person is any person aged 15 and over, who is not employed and is looking for a job

[13] According to the HCP, the employed labor force includes all persons, aged 7 and over, engaged in the production of goods and services during a specified short reference period and all persons normally employed but absent from work due to a temporary impediment. This is a broad concept that encompasses all types of employment, including casual work, part-time work and all forms of irregular employment.

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employed and excluding them from the unemployed distorts the statistics and creates a discrepancy between the reality of the labor market and the figures reported. In addition, the discrepancy between the concept of unemployment, based on status, and the concept of employment, based on the perception of an income, weakens the evaluation of the informal economy.

2.1.2.… And the theoretical point of view

Unemployment must be considered as a phenomenon whose causes and solutions vary from one economic theory to another, hence the relevance of the analysis of economic theories that have been interested in the issue of unemployment, from traditional to contemporary theories.

2.1.2.1. Unemployment according to the neoclassical theory

According to neoclassical economists, the functioning of the labor market is based on the following assumptions:

- **The rationality of the economic agent**: whether he is a consumer or a producer, he is considered rational because he can maximize his utility and/or his profit. This depends on his ability to analyze the information around him through the utility function [14]or production function[15];
- **Pure and Perfect Competition (PPC):** the rational economic agent should evolve in a competitive environment in order to make optimal decisions that maximize his utility and/or profit. The PPC hypothesis is based on five conditions: the atomicity of the market, the homogeneity of the product, the free entry and exit of the market, the perfect transparency of the market and of information, and the free circulation of the factors of production (Menard, 2005).
- **Homogeneity of labor:** the labor force offered by individuals is considered homogeneous. That said, everyone can work in any occupation available on the market that corresponds to his or her characteristics, which will allow for competition between job seekers.

Based on these three assumptions, the decisions of rational economic agents are supposed to reach an optimum in the labour market. Moreover, by referring to the law of diminishing factor returns (Bruno, 2003), specifically when applied to the labour market (Gleizes, 2000), each additional unit of work increases production, yet by a smaller proportion than the previous unit. To this end, an increase in the quantity of labor leads, over time, to a decrease in productivity. According to neoclassical assumptions, marginal productivity[16] is a decreasing function. Thus, based on the logic of profit maximization, an employer should increase its demand for labor until the revenue generated by the last unit of production (labor input) equals its cost (wage). In other words, the firm's workforce is set according to marginal productivity and when marginal productivity would equal the market-determined wage. Following this same logic, the difference between the wage paid and marginal productivity becomes zero. However, when the wage paid reaches its maximum, the firm stops production because, beyond that point, it begins to make losses on the extra units. Therefore, the demand for labor forms a negative relationship with wages, because the higher the wages, the less willing firms are to hire. Similarly, when the supply of labor exceeds the demand for labor, wages must be reduced to reduce the number of unemployed. Still referring to the hypotheses put forward by neoclassicists, the economic agent makes a trade-off between time devoted to work and time devoted to leisure (Pronovost, 2007). This reflection leads us to stipulate that, in order to achieve a given level of utility, the provider of labor must make a choice between work and leisure. Ceteris paribus, the marginal utility resulting from additional consumption, itself financed by an additional quantity of work, must compensate for the decrease in utility in leisure. Thus, the choice to increase working time rests on the ability of the marginal wage to compensate for the loss of utility in leisure. We thus speak of a unit that the labour

[14] The utility function is U = U (C, L), with C and L being consumption of goods and leisure.
[15] The production function is Q = f (K, L), with Q, K and L being respectively the quantity produced, the capital used, and the labor force mobilized.
[16] Marginal productivity = the change in output resulting from hiring an additional person

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provider must forego in order to increase his income by one unit, while remaining at the same level of satisfaction. The ratio of these changes is the Marginal Rate of Substitution (MRS) (Thiry, 2015). The latter corresponds to the level that the unit wage must reach in order to induce the job seeker to come to the market to offer their labor force or the employee to offer an additional quantity of work. Thus, the higher the MSR, the higher the labor supply. Therefore, labor supply is an increasing function of the wage. The supply of labor is positively correlated with the real wage (S) and the demand for labor forms a negative relationship with the real wage (S). The confrontation between the supply and demand curves forms an equilibrium wage (S*). If the state sets a minimum wage and this is higher than the equilibrium wage (S*), this will create unemployment because in this case the supply of labor becomes higher than the demand for labor. However, in this situation, we can find willing unemployed[17]; individuals (Q2) who are willing to work for this minimum wage, but fewer employers (Q1) are willing to hire them. According to neoclassical economists, the adjustment of the disequilibrium situation necessarily involves a reduction in wages that would allow the excess supply of labor to be absorbed to the point of reaching equilibrium. For the classical economist Pigou, *"a decrease in money wages, even if accompanied by a decrease in prices, would reduce the level of unemployment"* (Béraud, 2008). Wages must therefore be reduced to stimulate the demand for labour and to allow for the reduction of unemployment. Moreover, Jacques Rueff questions the compensation system and the minimum wage, stating that *"by immobilizing wages, we can maintain for working workers a remuneration somewhat higher than that which they would receive under free competition; but we condemn others to unemployment and expose them to evils which unemployment insurance only slightly alleviates."* (Généreux, 1987). For John Maynard Keynes, the level of wages does not determine the level of employment, but the opposite is true. According to him, there is an inverse causality between wages and employment (Deleplace, 2018).

2.1.2.2. Unemployment from a Keynesian point of view

In his critique of the neoclassical theory of employment, Keynes states that the theory was based on two fundamental postulates, which can be found in the Theory of Unemployment of Pigou (Pigou, 1933), and which are discussed in the second chapter of the General Theory of Employment, Interest and Money (Keynes, 1936). In Keynesian theory, the first postulate, *"the wage is equal to the marginal product of labor"* is accepted, while the second postulate, *"the equality of the marginal utility of the wage to the marginal disutility of employment"* is rejected (Keynes, 1936). It should be noted that the first postulate refers to the labour demand function and the second postulate to the labour supply function. For Keynes, the explanations of unemployment do not depend on the preferences of the labor supplier because the wage for which the latter is ready to offer his labor can be below the market price without him finding a demand that corresponds to his labor supply. This phenomenon is referred to as involuntary unemployment, according to Keynes, who argues that *"involuntary unemployment exists if, in the event of a slight rise in the prices of labor consumption goods relative to nominal wages, the aggregate supply of labor willing to work under current wage conditions and the aggregate demand for labor under the same conditions are both above the previous level of employment"* (Darity & Horn, 1983). As a result, when real wages fall, the demand for labour increases because, according to Keynes, it is dependent on the real wage. Whereas the supply of labour reacts in the opposite direction, it is independent of the real wage. Indeed, contrary to what neoclassicals have stipulated, the supply of labor, according to Keynes, depends on the money wage because economic agents' reason in monetary terms (Combemale, 2010). Wages are not paid in the form of a basket of goods that absolutely meets the needs of workers but are paid in money (Chevalier & Vignoles, 2013). This is the reason why households do not decrease their labor supply when wages increase. Yet, they do not object to a decrease in their real wages due to inflation (Keynes, 1936, p. 38). They are therefore victims of

[17] According to neoclassical economists, the concept of voluntary unemployment corresponds to the situation of individuals who refuse to work for the equilibrium wage level (S*).

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monetary illusion[18]. Moreover, in his critique of neoclassical theory, Keynes considered that involuntary unemployment is attributable to insufficient effective demand. Indeed, it is according to this effective demand that firms decide on the quantities of products to offer on the market of goods and services. It is a primordial element, explaining the economic situation and the level of employment, and therefore the level of unemployment. Keynes thus shifts the explanation of unemployment from the labor market to the goods and services market, while introducing the effect of money (Van de Velde, 2008). In addition, the period 1945-1970 saw the emergence of the "neoclassical synthesis", a macroeconomic thought process that combined short-term Keynesian analyses with the work of long-term neoclassicals. The main proponents of this synthesis are John Hicks, Paul Samuelson and Robert Solow. Within this synthesis, the disequilibrium theorist "Malinvaud" distinguished between neoclassical and Keynesian unemployment (Malinvaud, 1980). According to him, neoclassical unemployment is the result of demand exceeding supply in the goods and services market and supply exceeding demand in the labor market. To rebalance the labor market, two solutions are possible: a decrease in wages or an increase in the prices of goods and services. According to the same economist, Malinvaud, Keynesian unemployment results from an excess of supply in both markets; on the one hand, firms lack demand for their goods and services and on the other hand, households find it difficult to get a job. To restore equilibrium, stimulus policies are needed to stimulate demand for goods and services as well as for labor (Malinvaud, 1980).

2.1.2.3. Unemployment according to the Marxists

In addition to the neoclassical and Keynesian view of unemployment, Marxists have also interpreted the issue of unemployment. For Marx, unemployment appears in the second half of the 19th century in the form of the "industrial reserve army" (Marx, 1867). He states in his book "Capital" that "*during periods of stagnation and average activity, the industrial reserve army weighs on the active army, in order to curb its pretensions during the period of overproduction and high prosperity. Thus, relative overpopulation, once it has become the pivot on which the law of supply and demand of labor turns, allows it to function only within limits that leave enough room for the exploitative activity and the dominating spirit of capital"* (Marx, 1867). For Marx, unemployment has its origin in social conflicts related to the distribution of produced wealth, where the unemployment rate is considered the essential weapon of capitalists. In fact, according to the Marxist approach, *"it is a matter of encouraging arrivals on the labor market in order to maintain the pressure exerted by what Marx called the industrial army of reserves"* (Husson, 2008). The objective of capitalists is therefore to increase the rate of exploitation by making the unemployment rate a tool for pressure and control of wages, while disconnecting the progression of wages from that of productivity gains (Husson, 2007). Unemployment is qualified as a phenomenon inherent to the capitalist system, and to reduce unemployment, Karl Marx recommends abolishing capitalism and the wage system by moving to a socialist society.

2.1.2.4. Contemporary theories of unemployment

In addition to neoclassical, Keynesian and Marxist theories, other economic theories have recently emerged to explain the issue of unemployment. Let us start with the *theory of investment in human capital* which states that a positive and increasing link exists between the degree obtained and the probability of finding a job and of receiving a high wage (Becker, 1964). From a microeconomic point of view, the expenditure made by the labour supplier on his education and training represents an investment because it enables him to acquire the knowledge and skills necessary and required by the labour market. Thus, the probability of easily finding a better paid and prestigious job increases for the individual who has acquired the best training and diplomas. From a macroeconomic point of view, when the supplier of labor benefits

[18] An employee is a victim of monetary illusion if he thinks that only his salary has increased in the event of a general rise in prices, i.e. inflation. The money illusion consists in reasoning from the nominal values of the economy and not from the real values, i.e. nominal values corrected for the effects of inflation.

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from additional training, it allows him to increase the productivity of the firm on the one hand, and its income on the other. Taking our reasoning a step further, additional training generates additional gains for the labor supplier and therefore profits for the community, because the most highly trained and therefore best paid individuals pay the highest taxes to the State (Kamanzi, 2006). The job search theory developed by (Stigler, 1962) is interested in analyzing the notion of unemployment through the different job search strategies used by job seekers as well as their impact on the duration of finding a job.

For their part, the filter and signal theories developed by (Carnoy & Carter, 1975) stipulate that employers base their decisions on the degree obtained, the level of prestige of the school attended, work experience, etc. The aim is therefore to filter out the most important factors in the job search. It is therefore a question of filtering the job suppliers according to a signal emitted.

And according to the theory of competition for jobs (Thurow, 1977), there are no prior skills as such for the job because the main skills are acquired during the job. Thus, the selection of candidates is made based on the ability of job seekers to be trained and to adapt to the production system. In addition, the diploma is perceived as *"a sign of aptitude, determining the individual's access to employment and training by the company. Thus, the company hires not the most productive, but the most able to be trained quickly, decreasing the training costs for the employer"* (Vultur, 2006).

The theory of segmentation and distribution of employment, on the other hand, stipulates that the labor market is divided into two segments according to the level of wages and stability of jobs. The first segment is made up of stable, well-paid jobs, while the second segment is made up of precarious, lower-paid jobs (Piore, 1978). In addition to wage and stability conditions, we distinguish the two markets through working conditions, social benefits, training, promotion conditions, etc. (Leduc & Genevois, 2012). In fact, according to the theory of segmentation and distribution of employment, unemployment results from the monopolistic behavior of labor suppliers belonging to the first segment in setting the wage level. Note that in this first segment, due to union power, wages are set without considering the real situation of the labor market. The wage level in this first segment is therefore qualified as rigid and higher than that which would have prevailed in a competitive system. As a result, firms set a lower level of employment than in a competitive labor market. This factor therefore causes unemployment to persist. Moreover, the work of Joseph Stiglitz and Carl Shapiro (Shapiro & Stiglitz, 1984) shows in their efficiency wage model that there is an increasing relationship between the wage rate and employee productivity. The higher the wage, the more productive the individual. Indeed, the efficiency wage is one of the explanations for the unemployment rate; since it is set by firms above the equilibrium wage in order to attract the most productive employees and maximize their efforts, full employment cannot be achieved, and unemployment persists.

For its part, the insider-outsider theory developed by (Lindbeck & Snower, 1989), attempts to explain why wages do not fall despite the presence of high unemployment (Simar, 2003), under the hypothesis that *"only workers with a job **(insiders)** carry weight in wage negotiations. This influence is exerted to the detriment of the unemployed, who are excluded from the negotiations **(outsiders)**. Employed workers also protect themselves by offering delays or severance pay, training, etc.* (Simar, 2003). Indeed, the insider-outsider and efficiency wage theories give different explanations to the issue of involuntary unemployment. However, they are complementary insofar as the volume of involuntary unemployment depends on what labor demanders are willing to give and what labor suppliers are willing to accept. Furthermore, with respect to the implicit contract theory developed by (Azariadis, 1975), it proposes a new explanation of unemployment by stating that *"in a low economic cycle, employees get to keep their jobs without a wage cut, in exchange for a smaller wage increase than they would have to give in a high economic cycle"* (Denis, et al., 2011). This says that during the recession period, wages remain stable and do not adjust downward. This is due to the contract previously concluded between the employer and the employee. Similarly, in a good economic climate, wages do not increase as much as they should (Landais, 2008). According to this theory, variations in wages are smaller than fluctuations in employment and production. As a result, *"wage flexibility is therefore called into question, the market can no longer adjust supply and demand"* (Denis, et al., 2011). It assumes of the risk aversion of labor suppliers who prefer to maintain their wages during periods of growth than to lose a large part of their wages in times of crisis (Silem, 2018).

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2.2. The theoretical concepts of the Social and Solidarity Economy

2.2.1.Social Economy

Charitable institutions and mutual aid organizations have existed since the Middle Ages and have been the cornerstone of the social economy (Monzón & Chaves, 2012). Indeed, the history of the social economy goes back to the earliest forms of human associations. There existed hetairies in Greece, professional colleges of artisans in Rome, and companionship associations in the Middle Ages (Jacques & Nyssens, 2017). However, it was not until the 18th century that the movements of associationism, cooperativism and mutualism experienced an extraordinary rise through the gathering of the working classes and the most vulnerable individuals within associations and cooperatives in order to protect themselves against the damage caused by the industrial revolution. In the same vein, we cite the example of the "Friendly societies" which have been very dynamic in the United Kingdom (Gueslin, 1987).

- The anchoring of the social economy in cooperative life

At first glance, the term “cooperative” was born in England with the creation of the Rochdale cooperative, which was founded near Manchester in 1844 and formed the prototype of the cooperative movement (Cannon, 2009). This "Rochdale Pioneer of Fairness" cooperative established the first principles of cooperatives that are currently known as the “Rochdale Principles”:

- Free and voluntary membership[19];
- One man, one vote - regardless of the capital contributed[20];
- Distribution of profits in proportion to members' activities[21];
- Limited remuneration of members' capital shares[22].

In addition to these principles, there is the notion of the “double quality” of the members. Indeed, the members of the cooperative are both “associates” and “users”. On the one hand, they own and democratically control the cooperative. On the other hand, they can benefit from the goods and services produced by them. It should be noted that the Rochdale Principles were taken up at the creation of the International Cooperative Alliance (ICA)[23] in 1895. This alliance has reformulated them, on several occasions, while remaining faithful to the spirit of the Rochdale Pioneers.

The Social Economy has also been forged around different ideological approaches, some of which are more radical and others more conservative, but they share a common characteristic: that of considering that *"the social economy wants to be, no more and no less, another way of doing the economy"* (Gueslin, 1987).

According to Desroche's research, we can identify the following ideological currents: the socialist school, the social-Christian school, the liberal-social school, the solidarist school and the philanthropic tradition (Jacques & Nyssens, 2017). Furthermore, it should be noted that several institutions have conducted research with the aim of delineating the specificities of social economy organizations, identifying their nature of activity and their modes of production and operation.

For example, in 1989, the Walloon Regional Executive set up a Walloon Social Economy Council whose mission was to formulate a definition of the Social Economy. The first definition of the Social Economy was therefore drawn up and approved in Belgium in 1990 by the Walloon Council for the Social Economy (WCSE). Based on this definition[24], we can identify the Social Economy by its four main types of legal status: cooperative, mutual, association and foundation. Furthermore, we would like to point out that, in

[19] The cooperative allowed anyone to join and become a member.
[20] The important element here is that for one person, the pioneers were invested in democracy, particularly through their involvement in Chartism, a grassroots movement that fought for one man, one vote.
[21] User-owner benefits distinguish cooperatives from businesses that pay profits to owners of capital.
[22] This principle is derived from the work of Robert Owen. Owen set a fixed and limited interest on the capital he borrowed to finance his factory. By paying a fair return rather than a speculative one, Owen was able to use the extra profits to provide better wages and working conditions for his workers.
[23] The International Co-operative Alliance (ICA) brings together, represents and assists co-operatives from around the world. Web link: www.ica.coop
[24] See Box 1 in the Appendix.

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some countries, the cooperative status is not very demanding and can be adopted by companies outside the Social Economy. It is therefore necessary to ensure that ethical principles are respected, as the legal requirements are not enough to attest to membership in the social economy. In the case of Morocco, law 122-12 [25]has clearly defined the status of the cooperative.
Otherwise, as mentioned above, the movements of associationism, cooperativism and mutualism experienced an extraordinary rise in the 19th century through the gathering of the working classes within associations and cooperatives in order to protect themselves against the damage caused by the industrial revolution. Thus, the emergence of the social economy was essentially due to the great precariousness of working conditions caused by industrialization. Today, the social economy approach makes it possible to highlight a third major sector alongside the public and private sectors in order to respond to the problem of unemployment that has not been resolved by either the classic market actors or the State.

2.2.2.Solidarity Economy

The concept of Solidarity Economy corresponds to very diversified practices such as solidarity finance, fair trade, microcredit, proximity services, sustainable tourism, sustainable agriculture, different collective entrepreneurial forms (Lasida, 2008). Indeed, the notion of Solidarity Economy was developed by Eme & Laville (Les petits boulots en question, 1988), in order to unveil the initiatives resulting from a double crisis; the first crisis is qualified as a value crisis, which appeared in the 1960s, and was characterized by the appearance of social movements whose objective is the improvement of the quality of life of employees, the prohibition of child labor and the integration of the elderly. The second crisis was economic and corresponded to the slowdown in growth and the rise in unemployment in the 1980s. To this end, the actors of the social economy, namely associations, mutuals, cooperatives and foundations, have tried to provide solutions to the problem of unemployment, against which neither the public nor the private sectors have proved capable of fighting.

In the same vein, we present the definition of solidarity economy as stipulated by J. L. Laville, which, according to him, refers to *"the set of economic activities subject to the will of a democratic action, where the social relationships of solidarity take precedence over the individual interest or the material project"* (Pepita, 2010).In addition, the solidarity economy is an extension of the social economy by articulating economic and political dimensions.

On the one hand, the economic dimension corresponds to the reciprocity in which the exchanges and initiatives of the actors (cooperatives, foundations, associations and mutual societies) are explained by their will to maintain or reinforce the socio-economic links between users, professionals, volunteers and/or territorial communities (Servet, 2007). These economic initiatives, of a solidarity nature, were born through a "reciprocal impulse" whose objective is to provide answers and solutions to different socio-economic problems. On the other hand, the political dimension of the solidarity economy is *"just as constitutive of the practices as their socio-economic dimension: the projects formulated aim at institutional change and not only production, which positions them as new democratic spaces by their dimension of public space in civil societies"* (Eme & Laville, 2004).

This means that there is a link between what is economic and what is political, because people were both creating associations, mutuals, cooperatives and advancing the principles of freedom and equality through demands, political protests so that there would be changes in the laws and regulations of employment.

2.2.3.Social and Solidarity Economy as a third sector of the Economy

The Social and Solidarity Economy (SSE) represents the third sector of the economy in which we find organizations whose activity intertwines an economic purpose and a social utility.

It can be Microenterprises, Economic Interest Groups, but also more widely Cooperatives, Associations, Mutual Societies and Foundations. Indeed, the objective of the actors of the Social and Solidarity Economy

[25] See box 2 in the Appendix for having some details concerning the definition of the cooperative and its management principles in Morocco.

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is not to make a profit but to bring solutions to the economic and social problems encountered by the most marginalized individuals. This third sector aims to offer jobs to the unemployed, promote solidarity finance, encourage fair trade and sustainable tourism, support the most sustainable types of production: sustainable agriculture, renewable energy, etc. The definition of SSE is still ambiguous, despite the multiple researches carried out on an international scale. This ambiguity has led to numerous names and definitions that change from one territory to another and from one school of thought to another, but they all have one thing in common: the existence of a third sector alongside the public and private sectors. According to Claude Vienney, the SSE is characterized by its actors, its activities and its specific rules, namely: democratic functioning, determination of the activity by the members of the organization, distribution of the surplus, production of sustainable and collective goods and services (Lévesque, Ninacs, Benoît, & William, 1997).

For Laville and his co-authors (Dacheux & Laville, 2003), the SSE is defined through an expanded conception of the economy and politics. Moreover, drawing on the work of Karl Polanyi, we define *"SSE from a substantive point of view by highlighting three economic principles: the market economy, the non-market economy and the non-monetary economy"* (Mendell & Marguerite, 2002).

According to other authors (Roustang, Laville, Eme, Mothé, & Perret, 1996), the SSE can be defined as a plural economy because several principles and resources are mobilized. In addition, the SSE occupies an intermediate position between the public and private sectors and is characterized by its socioeconomic and socio-political dimensions (Evers & Laville, 2004). In the American literature, the SSE is qualified as a "Third Sector" where we find nonprofit organizations, mutuals, associations, cooperatives and any other form of organization that redistributes its earnings with its members and carries out an activity whose utility is both economic and social ((Evers & Laville, 2004) ; (Vaillancourt, 1999) ; (Gui, 1992)). For its part, the concept of the "Third Sector" also refers to NonProfit Organizations (NPO); these are defined as non-profit organizations operating in a sector capable of addressing socio-economic problems, such as unemployment and poverty, that have not been solved either by the state or by the private sector (Salamon, Anheier, List, Toepler, & Sokolowski, 1999). Thus, in the most recent scientific research, social innovation is increasingly associated with the SSE. In the same vein, SSE actors *"are more likely than others to be the bearers of social innovations for the good reason that they generally emerge to satisfy needs and aspirations that are not satisfied or poorly satisfied by the market or the State"* (Levesque & Mendell, 2005).

Then, according to (Chaves & Monzón, 2005), SSE is a sector that brings together economic actors who share values and principles with the aim of developing society on the economic and social levels.

According to the Ministry of Economic and General Affairs (MEGF) in Morocco, SSE is defined as follows:

Box 3. Definition of SSE according to the MEGF in Morocco

"The SSE corresponds to economic initiatives seeking to produce goods or services, to consume and save differently, in a way that is more respectful of people, the environment and the territories:
-Finality of services to members/community;
-Principles of solidarity and responsibility.
-A democratic control by the members according to the principle of one person = one vote and not one share = one vote.
-A development dynamic based on a territorial anchorage and a citizen mobilization".

Source: (MCAEG, 2011)

For its part, the Economic, Social and Environmental Council (ESEC) in Morocco proposes the following definition of the SSE:

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Box 4. Definition of SSE according to the ESEC in Morocco

"The social and solidarity economy is the whole of the economic and social activities organized in the form of formal structures or groupings of physical or moral persons with a purpose of collective and societal interest, independent and enjoying an autonomous, democratic and participative management and where the membership is free. Also included in the Social and Solidarity Economy are all institutions with a mainly social purpose, proposing new economically viable and inclusive models by producing goods and services centered on the Human element and included in sustainable development and the fight against exclusion".

Source: (Annual Report, 2015)

3. Relationship between the unemployment rate and SSE in Morocco "Case in the Tangier, Tetouan, Al-Hoceima State"

3.1. Contextualization and statistical analysis of the variables studied

3.1.1.Analysis of unemployment rate in the Tangier-Tetouan-Al Hoceima State

Nationally, the unemployment rate rose in 2020 to 11.9%, compared with 9.2% in 2019. It rose from 7.8% to 10.7% for men and from 13.5% to 16.2% for women. As for the graduate category, it increased from 15.7% to 18.5% between 2019 and 2020 (HCP, 2021).

Regionally, we note that in 2020, five states account for 72% of the total working population. The Casablanca-Settat state tops the list with (22.4%) of the active population, followed by Rabat-Salé-Kenitra (13.5%), Marrakech-Safi (13.4%), Fez-Meknes (11.6%) and Tangier-Tetouan-Al Hoceima (11%). As for the evolution of the unemployment rate in the TTA state, it is 10.4% in 2020 and 11.9% in Q1-2021. We note, moreover, that in terms of the activity rate, the TTA state has posted a value of (48.1%) or a rate higher than the national average having recorded (45.5%) (HCP, 2021).

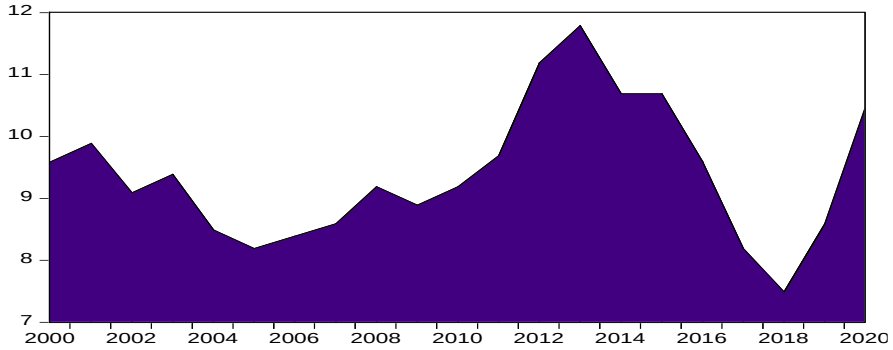

Figure 1: Annual change in the unemployment rate in the TTA state, between 2000 and 2020.

Source: HCP data, graph produced by the authors.

On average, the unemployment rate in the state Tangier-Tetouan-Al Hoceima (TTA) recorded 9.00% during the period 2000-2010, and 9.85%[26] during the period 2011-2020. Note that it reached its highest value in 2013 to settle at 11.80% and its lowest value in 2018 by posting 7.50%.

3.1.2.Number of cooperatives in the TTA state

In Morocco, the number of cooperatives recorded 40 531 in 2020 with a total of 646 901 members. It should be noted that agricultural cooperatives are at the top of the list, recording a total of 25,646 cooperatives and 458,115 members, followed by those specializing in the craft with a total of 7,833 cooperatives and 65,599 members (ODCO, 2021). As for the geographical distribution in 2020, the state of

[26] Author's Calculations.

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the East comes at the top of the list, with 5,517 cooperatives and 79,602 members, followed by the state of Marrakech with 4,364 cooperatives and 88,528 members. For its part, the state TTA highlights 2 264 cooperatives and 28 488 members, according to statistics that we were able to recover from the management of the ODCO. Indeed, most cooperatives located in the TTA state are specialized in the agricultural and craft sectors, as are other cooperatives on a national scale[27].

In the same vein, we note that the number of agricultural and craft cooperatives installed in the state TTA, amounted respectively in 2020 to 1 375 and 567. Nevertheless, it seems important to mention that there has been a structural change in the cooperative fabric in Morocco and this, from the year 2015, date of entry into force of the law 112-12 on Moroccan cooperatives[28].

The implementation of Law 122-12[29] has impacted the operation of cooperatives and as demonstrated above, their number in "the state Tangier, Tetouan, Al-Hoceima" has dropped sharply in 2016, reaching 922 against 1485 in 2015. All other things being equal, the number of members of cooperatives has also decreased, posting 20,762 in 2016 against 39,152 in 2015.[30]

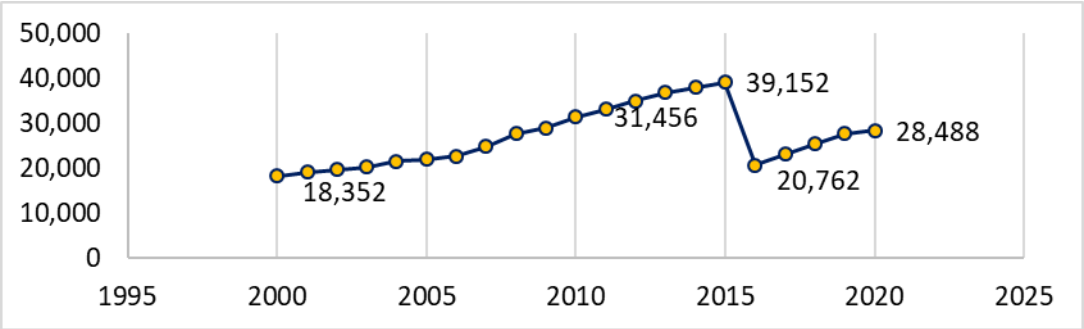

Figure 3. Evolution of the number of members of cooperatives in the TTA state.
Source: ODCO data, graph by the authors.

We also point out that all this data has been processed and does not include cooperatives that are not compliant with Law 112-12. Indeed, after a 47% decrease in 2016, the number of members marked a 12% increase in 2017 to show 23,161. It continued an upward trend to reach 28,488 members at the end of 2020.

3.1.3.Support programs dedicated to cooperatives

Morocco has set up programs to benefit the cooperative sector, given its role in creating jobs and fighting poverty and insecurity. The different support programs put in place aim to develop the sustainability of cooperatives and Income Generating Activities (IGA) by providing technical and financial support during their production and marketing phases. Among the main programs, intended for this purpose, we cite: "NIHD[31]", "Mourafaka[32]", "GMP[33]", "Moazara[34]", "Morocco-Attamkine[35]" and recently "RRTTEE[36]".

[27] See Figure 2 in the Appendix (Annual change in the number of cooperatives in the TTA state between 2000 and 2020.
[28] https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/107356/132106/F-2102476599/MAR-107356.pdf
[29] The objective of law 112-12 is to simplify the procedure for creating cooperatives. Thus, the obligation to obtain an approval has been abolished and the minimum capital for their constitution is fixed at 1,000 dirhams.
[30] The data was provided to us by ODCO management
[31] National Initiative for Human Development.
[32] Post-creation" support program is the result of a partnership between the MEFRA and the ODCO, adopted as part of the 2015 strategy for the craft industry and designed to support newly created cooperatives (less than two years old). http://www.odco.gov.ma/fr/content/programme-mourafaka
[33] Green Morocco Plan
[34] This program is intended to finance innovative projects for the benefit of actors in the Social Solidarity Economy, in particular: cooperatives, associations and networks of associations operating in the SSE sector https://MTHSSE.gov.ma
[35] "Morocco-Attamkine" is a program adopted in 2020 by the Ministerial Commission for Equality.

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In Fact, on the technical level, the NIHD accompanies the cooperatives from the creation stages to the labeling, certification and marketing of their products. Financially, the NIHD provides up to 60% of the capital invested (or a maximum of 300,000 MAD). The rest must be contributed in cash or in kind by the project leader or the cooperative. Thus, in order to benefit from NIHD support, the number of young people and women members of the cooperative must exceed 30% of the workforce (NIHD, 2021). Immediately after the creation of the cooperative, the NIHD intervenes through its famous "Mourafaka" program; this is a post-creation support program intended to strengthen the production capacities of newly created cooperatives in Morocco (500 per year), whose objective is to ensure income for 200,000 direct or indirect beneficiary members. The "Mourafaka" program has three components: a strategic diagnosis of the cooperative to identify its strengths, weaknesses, opportunities and threats; the organization of group training sessions focusing on management, marketing and commercialization techniques; and individual coaching for the benefit of the cooperative's members. In addition, the "Mourafaka" program is based on the development of the following approaches: innovation, equality between men and women, territoriality, environmental protection, inclusive growth and sustainable development (MTHSSE, 2018). The GMP, for its part, is included in the strategies of inclusive and sustainable development. Indeed, through its 2nd pillar, the GMP has helped strengthen the development of agricultural cooperatives and boost employment in rural areas of Morocco. In 2020, the State has planned to carry out 989 solidarity farming projects for the benefit of 730,000 beneficiaries, for a budget of 14.5 billion MAD (ADA, 2021).

In addition, in 2020 we saw another program developed by MTHSSE to mitigate the economic and social repercussions of Covid-19 that affected the cooperative sector. This program is called "Moazara". It has been endowed with an envelope of 2 billion MAD intended to support cooperatives and to coalesce the efforts of SSE actors in order to promote the inclusive growth of women and youth. In figures, out of 200 applications received by MTHSSE, 42 projects have been selected within the framework of the "Moazara" program and are distributed as follows 38% correspond to IGAs, 24% to projects for the creation of digital marketing platforms, 19% are projects for the creation of distance learning platforms and 19% are projects aimed at capacity building of SSE actors. It should be noted that 52% are projects aimed at the economic and social development of rural women.

For its part, the "Morocco-Attamkine" program was also adopted in 2020 by the MSSDEF[37] in order to develop the economic empowerment of women and girls. It should be noted that this program has 3 strategic objectives, perfectly aligned with the Sustainable Development Goals, namely: *"to reach 30% of the female employment rate; to double the proportion of women graduating from vocational education, in order to be at the same level as men; to promote an environment conducive to the economic empowerment of women and girls"* (MSSDEF, 2020, p. 3). Indeed, in order to achieve gender equality in the workplace, the "Morocco-Attamkine" program aims to promote entrepreneurship and SSE through the strengthening of women's cooperatives. In the same vein, we note that Moroccan women's cooperatives have increased from 259 in 2014 to 1815 in 2015, to 2280 in 2016, 2923 in 2018 and 4524 in 2019 (MSSDEF, 2020, p. 36).

For its part, the program "Revitalization of Moroccan Rural Territories through Employment and Entrepreneurship in the agricultural and para-agricultural sector (RRTTEE)" launched in 2021 by the MAMRW [38]aims to provide technical and financial support to rural entrepreneurship and agricultural cooperatives and strengthen their marketing channels. We specify that this program targets 3 states "Fez-Meknes, Oriental, Souss-Massa" and it is endowed with a total envelope of 70 million Euros, distributed as follows: Loan from the French Development Agency (EUR 50 million) and grant from the European Union (EUR 20 million) (MAMRW, 2021).

[36] "Revitalization of Moroccan Rural Territories through Employment and Entrepreneurship: The total envelope dedicated to this program amounts to EUR 70 million, distributed as follows AFD loan (EUR 50 million) and European Union (EUR 20 million).
[37] Ministry of Solidarity, Social Development, Equality and Family.
[38] The Ministry of Agriculture, Maritime Fishing, Rural Development and Water and Forests.

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4. Econometrics Models

4.1. Simple linear regression model

We used econometric modeling to assess the contribution of SSE, through the participation of cooperatives in employability in the TTA state. For this purpose, we chose the variables below, over a period from 2000 to 2020.

Table1. Variables of the simple linear regression model

Period	Coding	Variables	Type of variable
2000-2020	**CHO**	Unemployment rate in the state (TTA)	Endogenous
	ADH	Number of members of cooperatives in the state (TTA)	Exogenous

Source: Author's.

Our basic econometric model is designed as follows:

$$CHO = \alpha 0 + \alpha 1\ ADH + \varepsilon \quad \textbf{(1)}$$

The signs of the theoretically expected coefficients should be negative, since an increase in cooperative membership would normally contribute to a decrease in the unemployment rate in the ATT state. Prior to estimation, we took the variables in our model in logarithm[39] rather than in level. As a result, the econometric specification is described as follows:

$$LCHO = \alpha 0 + \alpha 1\ LADH + \varepsilon \quad \textbf{(2)}$$

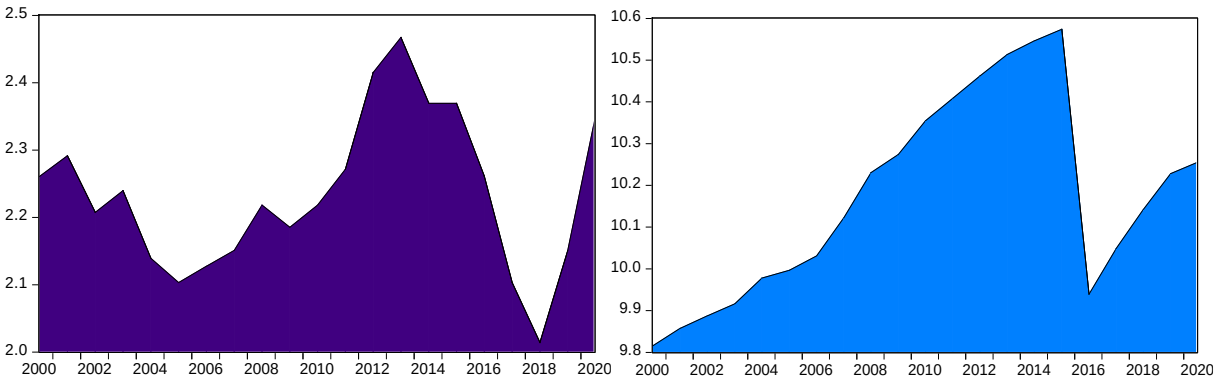

Figure 4. Graphs of logarithmic variables "LCHO" & "LADH" in the TTA state

Source: Author's.

Based on the above graphs, the two variables are non-stationary (especially on average) but can be cointegrated (almost identical evolution over the whole sample). To validate the non-stationarity of the two variables, we applied the **"Dickey Fuller Augmented unit root test"** and the **"Correlogram test"**. Indeed, the models for performing the "Dickey Fuller Augmented"[40] tests are based, under the alternative hypothesis **|φ1| < 1**, on the ordinary least squares' estimation of these three models:

$$\Delta x_t = \rho x_{t-1} - \sum_{j=2}^{p} \phi_j \Delta_{t-i+1} + \varepsilon_t \text{ ; Avec } \varepsilon_t \rightarrow i.i.d. \quad \textbf{(3)}$$

$$\Delta x_t = \rho x_{t-1} - \sum_{j=2}^{p} \phi_j \Delta_{t-i+1} + c + \varepsilon_t \text{ ; Avec } \varepsilon_t \rightarrow i.i.d. \quad \textbf{(4)}$$

$$\Delta x_t = \rho x_{t-1} - \sum_{j=2}^{p} \phi_j \Delta_{t-i+1} + c + bt + \varepsilon_t \text{ ; Avec } \varepsilon_t \rightarrow i.i.d. \quad \textbf{(5)}$$

[39] We used the log-log specification so that the distribution of our variables is not very skewed or heteroscedastic.
[40] Bourbonnais. Econometrics. Dunod,2018. 416 p.

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The various stationarity tests [41]carried out show that the "LCHO" variable is integrated of order (2) whereas the "LADH" variable is integrated of order (1). This means that we cannot estimate a cointegrating relationship between the two variables. The results of the simple linear regression model show a positive relationship between the evolution of the unemployment rate and the evolution of the number of cooperative members in the TTA state. These results are contrary to the signs theoretically expected. In addition, the coefficient of determination R^2 is very low, i.e. 8.5% for the period 2000-2020. From these first results, we argue that the unemployment rate in the TTA state cannot be explained solely by the number of cooperative members, but also through other quantitative and qualitative factors.

Table2. Results of the simple linear regression model

Model to be estimated	$DLCHO2 = \alpha_0 + \alpha_1 DLADH + \varepsilon$ **(6)**
Period of analysis	2000-2020
Estimation Equation	DLCHO2 = 0.005 + 0.186 DLADH **(7)**
R-squared	8.5 %

Source: Author's Calculations.

4.2. Estimation of the econometric model through multiple linear regression

Considering that, since the launch of the National Initiative for Human Development (NIHD), in 2005, the number of cooperatives has experienced strong increases and this, because of their potential to integrate small producers in the economic fabric especially in the agricultural sector. And taking into consideration the structural change that the cooperative sector has experienced since 2015 and this, following the entry into force of Law 112-12 which has impacted the method of calculating the number of cooperatives and their members. We will introduce a third variable and analyze the econometric relationship between our different variables over the period 2005 and 2015.

Table3. Results of the simple linear regression model

Period	**Coding**	**Variables**	**Type of variable**
2005-2015	CHO	Unemployment rate in the state (TTA)	Endogenous
	ADH	Number of members of cooperatives in the state (TTA)	Exogenous
	NBC	Number of cooperatives in the state TTA	Exogenous

Source: Author's.

Our basic econometric model is designed as follows:

$$LCHO = \alpha 0 + \alpha 1\ LADH + LNBC + \varepsilon \quad \text{Avec N= 11 years} \qquad \textbf{(8)}$$

This time the LCHO variable became stationary after making the first difference, while the stationarity of the exogenous variables was only validated after the second difference.

Table4. Results of the multiple linear regression model

Model to be estimated	$DLCHO = \alpha_0 + \alpha_1 DLADH2 + \alpha_2 DLNBC2 + \varepsilon$ **(9)**
Method Applied	Ordinary Least Squares (OLS)
Period of analysis	2005-2015

[41] See Figures 5 and 6 in the Appendix.

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Estimation Equation	DLCHO = 0.02 + 1.72 DLADH2 – 0.76 DLNBC2 **(10)**
R-squared	40.42%

Source: Author's Calculations.

The results of our second model show the existence of a positive relationship between the unemployment rate and the membership of cooperatives in the Tangier, Tetouan, Al-Hoceima state. However, they show a negative correlation between the evolution of the unemployment rate and that of the number of cooperatives in the TTA state. According to the results obtained, an increase of 10% in the number of cooperatives can decrease 0.76% of the unemployment rate in the TTA state. Thus, the coefficient of determination shows that the variations of the exogenous variables can explain 40.42% of the variations of the endogenous variable (unemployment rate).

5. Discussion of the results

First, the central question of this scientific research is to appreciate the contribution of the SSE, especially its cooperative component, in terms of job creation in the state of Tangier-Tetouan-Al Hoceima. The statistical analysis that we conducted on the selected variables revealed that most cooperatives in the state studied are engaged in agricultural and craft activities and this, like other cooperatives located in other states of the kingdom. It should be noted that in 2020, 60% of cooperatives located in the TTA state, operate in the agricultural sector, while 25% of cooperatives are engaged in craft activities. The statistical analysis has also shown that during the period 2000-2020, there have been two structural changes affecting the evolution of the number of cooperatives and members. The first change is explained by the creation of the INDH, in 2005, bringing a strong dynamism to the cooperatives in Morocco and in the TTA state. The second change is due to the entry into force of Law 122-12, in 2015, which has strongly impacted the way the number of cooperatives is calculated.[42] For this reason, the observations of our second econometric model were limited to the period between 2005 and 2015. The choice of this period aims, on the one hand, to include the positive effect of the INDH on the evolution of cooperatives, and on the other hand, to eliminate the impact of law 122-12 on the way cooperatives are registered. The results obtained reveal a negative correlation between the evolution of the number of cooperatives and the unemployment rate. In fact, a 10 percent increase in the number of cooperatives in the TTA state should lead to a 0.76 percent reduction in the unemployment rate. This indicates that cooperatives and SSE, in general, could contribute to solving the unemployment problem in the TTA state. However, many constraints have been detected that, in our opinion, prevent the evolution and development of the action of cooperatives in the TTA state, among others:

- Ignorance of the existence of the SSE sector and the cooperative, especially on the part of the rural population;
- The high rate of illiteracy and lack of schooling as well as the absence of an economic culture among a large part of the population, especially in rural areas, which deprives them of knowing the socio-economic benefits they could get from the cooperative;
- Roads in rural areas need to be maintained and/or improved in order to reduce the distance that members walk from their homes to the cooperative. Indeed, most members would have to walk several kilometers to reach the cooperative, which results in low productivity due to lost time and fatigue. In the same vein, we would like to point out that, according to the latest available statistics,

[42] The statistics do not include cooperatives that do not comply with Law 122-12 and represent only those cooperative records received from local registries (courts), processed and entered the Central Cooperative Registry (ODCO).

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the National Rural Road Accessibility Index (INARR)[43] increased from 54% in 2005 to 75% in 2012 (SSATP, 2014), , reflecting the low access of citizens to the road and in turn illustrating the effect that the existence of roads could have on the activity of cooperatives located in rural areas ;

- The low rate of households with a vehicle in rural areas. Thus, according to the (HCP, 2018, p. 68), the rate of rural households with a car was only 5.4% in 2015;
- Collective transport is not well developed in rural areas, which makes it difficult for members to travel from their homes to the cooperatives;
- The transportation of raw materials to production sites or finished products to sales points is also a real constraint for cooperatives;
- In addition to the problems of education, illiteracy and school dropout, the members' skills, especially those inherent to the management of the cooperative (accounting, marketing, commercialization techniques...) also represent one of the constraints that hinder the development of cooperatives and of the SSE in general.

6. Conclusion

The econometric results show the existence of a negative correlation between the evolution of the number of cooperatives and that of the unemployment rate in the TTA state, this means that the increase of the number of cooperatives in that area leads to a reduction in the number of unemployed people. We can therefore argue that, alongside the public and private sectors, the SSE via its cooperative component also contributes to the decrease of unemployment in the TTA state.

Nevertheless, as we have pointed out, fighting unemployment using cooperative action is not limited in the number of cooperatives created annually or the number of people who join them, but it also depends on a multitude of qualitative factors that we have raised during this research.

First, a large part of the population is unaware of the existence of the Social and Solidarity Economy (SSE), that's the reason why we recommend making citizens know about the socio-economic advantages which the actors of the SSE can offer, particularly in terms of job creation.

In addition, some necessary conditions must be available to SSEOs[44] so that they can develop their activities and create more added value in the TTA state. In this regard, we recommend improving access to rural roads and providing collective transportation to cooperative members to ease their movement in order to increase their productivity. It is also necessary to provide these cooperatives with fleets of vehicles to transport raw materials to factories and final products to points of sale.

In the same vein, we recommend providing cooperative members with the training they need to acquire and/or develop their management skills, as well as accounting, management control, financial analysis, marketing and communication techniques.

Thus, we recommend the creation of digital platforms in order to ease their products marketing and develop their customer portfolio locally and nationally.

Finally, we would like to specify that cooperatives are part of a circular and inclusive economic approach, which, beyond the creation of employment and the fight against poverty, consists in reinvesting the profits

[43] This index measures the proportion of the population living in localities (PT) located less than one (1) kilometer from an all-weather road (PD); only the populations of douars with more than 50 households are considered. The formula is as follows: (INAAR = PD/PT).
[44] Social Solidarity Economy Organizations.

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made in education, training, transport, health of its members and their families. To this end, we argue that cooperatives represent a lever for emancipation of rural areas and a major player in the human, economic and social development of our country.

7. Research perspectives

The objective of this research was to assess the contribution of the Social Solidarity Economy and particularly that of the cooperatives in terms of job creation. The econometric study was based on quantitative data (number of cooperatives, number of members, unemployment rate) concerning the Tangier Tetouan Al-Hoceima state, over the period 2000-2020. The results obtained are significant. However, in order to better evaluate the role of cooperatives in the fight against unemployment, it would be interesting to introduce qualitative variables in our econometric model. Therefore, following this research work, we would be interested in interviewing cooperatives managers located in the TTA zone. We would like to point out that it would be interesting to look at other socio-economic indicators and other states to study, analyze, and criticize the contribution of SSE and cooperatives in sustainable development in Morocco.

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Appendixes

Box 1. Definition of the social economy according to the WCSE

"The social economy consists of economic activities carried out by companies, mainly cooperatives, mutuals and associations whose ethics are reflected in the following principles:
- The aim is to serve the members or the community rather than to make a profit;
- Autonomy of management;
- Democratic decision-making process;
- Primacy of people and work over capital in the distribution of income".

Source: Walloon Council of the Social Economy, 1990.

Box 2. Definition of a cooperative according to Law 122-12

The cooperative is a group of natural and/or legal persons, who agree to join to create an enterprise, allowing them to satisfy their economic and social needs, and which is managed in accordance with the fundamental values and principles recognized worldwide in the field of cooperation, notably:
- Voluntary and open membership;
- Democratic power exercised by the members;
- Economic participation of members;
- Autonomy and independence;
- Education, training and information;
- Cooperation between cooperatives;
- Commitment to society.

Source: Cooperative Law in Morocco 122-12, 2015.

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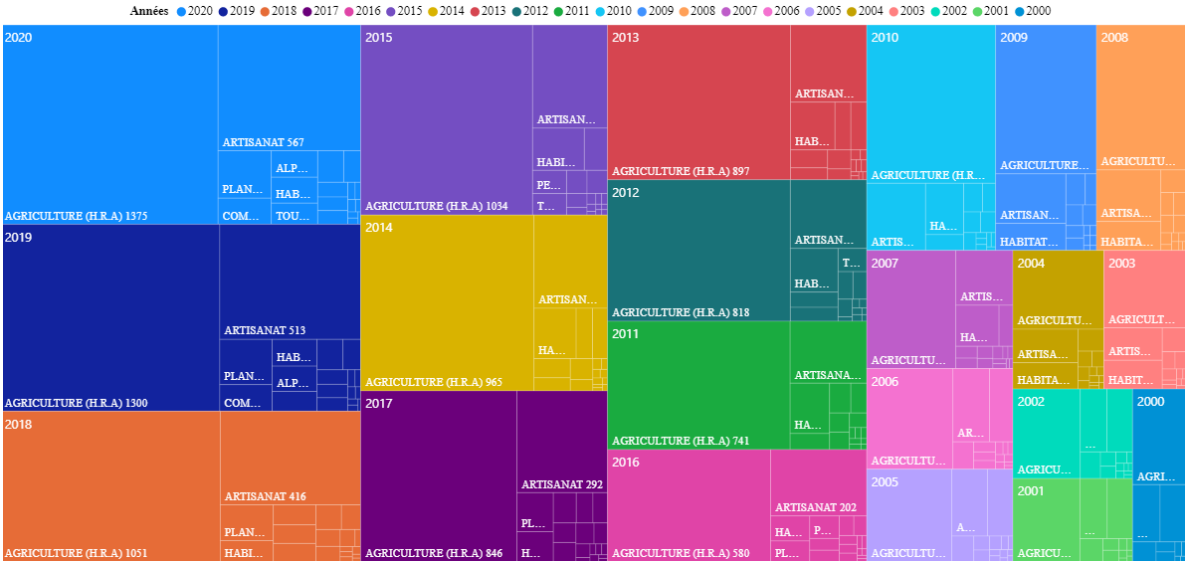

Figure 2. Annual change in the number of cooperatives in the TTA state between 2000 and 2020.

Source: ODCO data, chart produced by the authors.

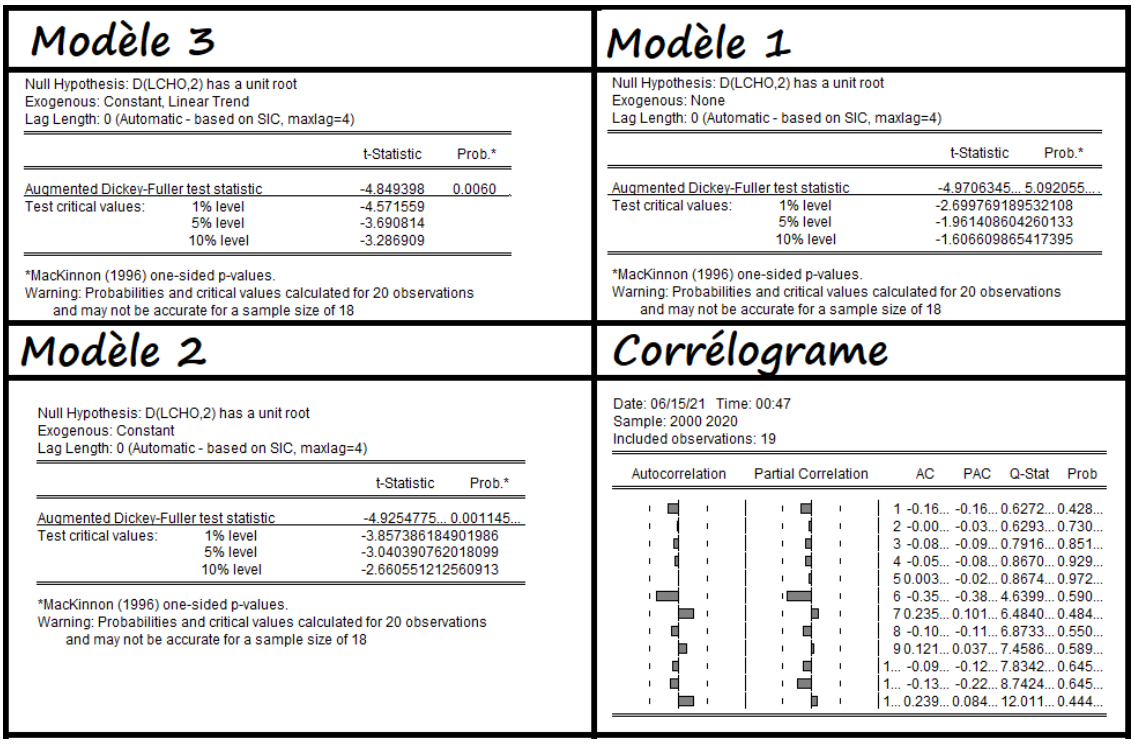

Figure 5. Calculation of the ADF tests and correlogram tests of the LCHO variable after the 2nd difference.

Source: Author's calculations.

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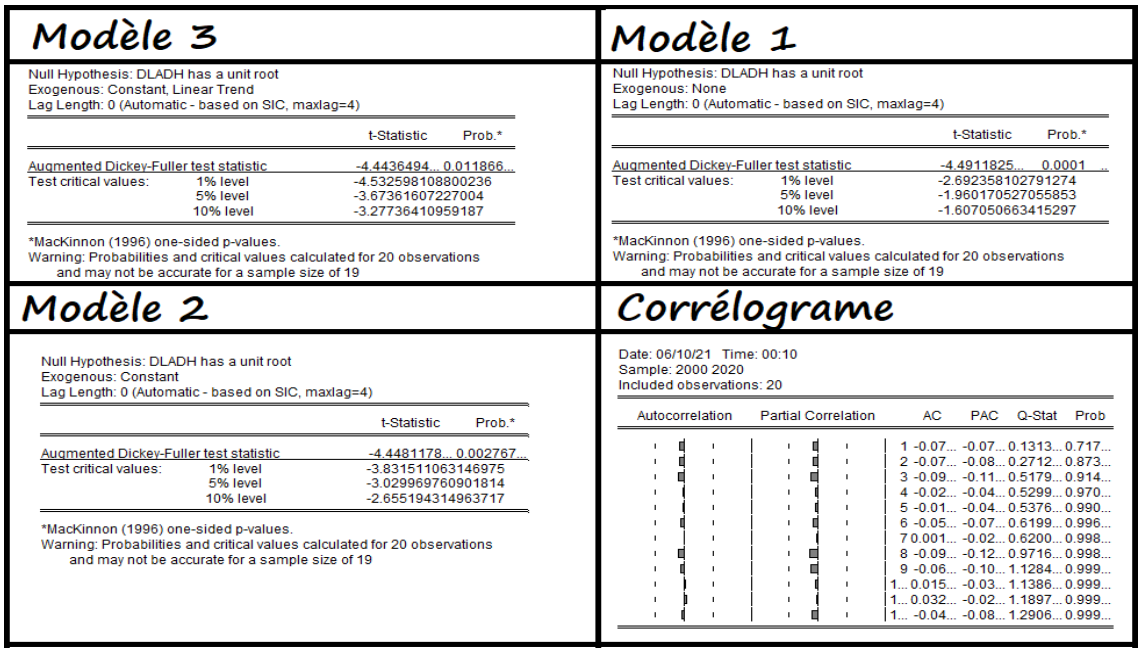

Modèle 3

Null Hypothesis: DLADH has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.4436494...	0.011866...
Test critical values:	1% level	-4.532598108800236	
	5% level	-3.67361607227004	
	10% level	-3.27736410959187	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 19

Modèle 1

Null Hypothesis: DLADH has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.4911825...	0.0001
Test critical values:	1% level	-2.692358102791274	
	5% level	-1.960170527055853	
	10% level	-1.607050663415297	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 19

Modèle 2

Null Hypothesis: DLADH has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.4481178...	0.002767...
Test critical values:	1% level	-3.831511063146975	
	5% level	-3.029969760901814	
	10% level	-2.655194314963717	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 19

Corrélograme

Date: 06/10/21 Time: 00:10
Sample: 2000 2020
Included observations: 20

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	-0.07...	-0.07...	0.1313...	0.717...
		2	-0.07...	-0.08...	0.2712...	0.873...
		3	-0.09...	-0.11...	0.5179...	0.914...
		4	-0.02...	-0.04...	0.5299...	0.970...
		5	-0.01...	-0.04...	0.5376...	0.990...
		6	-0.05...	-0.07...	0.6199...	0.996...
		7	0.001...	-0.02...	0.6200...	0.998...
		8	-0.09...	-0.12...	0.9716...	0.998...
		9	-0.06...	-0.10...	1.1284...	0.999...
		1...	0.015...	-0.03...	1.1386...	0.999...
		1...	0.032...	-0.02...	1.1897...	0.999...
		1...	-0.04...	-0.08...	1.2906...	0.999...

Figure 6. Calculation of the ADF tests and correlogram tests of the LADH variable after the 1st difference.

Source: Author's calculations.