Characterization of the Territory and Estimation of a Synthetic Index of Social Welfare

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Abstract **– The rural approach to territorial development has challenged globalization; the countries have opened their agricultural borders through trade agreements that benefit the rural sector. Europe has become an agricultural power, leading the design of foreign trade policies for products of agricultural origin, expanding its areas of influence to underdeveloped countries, proposing changes in the world economy. This approach proposes to build and strengthen cultural identity in rural territories and improving the quality of life. This research proposes the development of a synthetic well-being index for fifteen rural municipalities in the province of Malaga, in the south of the Autonomous Community of Andalusia. The results show that the results of the studied territories are homogeneous, with small differences in the capital of the Antequera Region.**

Keywords **– development, rural approach, food sovereignty, synthetic index, well-being, agribusiness.**

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1. Introduction

In the context of globalization, the world economy has become more dynamic, and borders no longer constitute a limitation to commercial exchanges, which has forced regions to become more efficient by potentiating their competitive advantages and improving their production systems. All this in order to offer
them to the world and creating an identity of the territory [1].

The rural approach to territorial development constitutes a challenge in globalizing processes, which is why countries feel obliged to open their agricultural borders and achieve trade agreements that strengthen rural territories, which has resulted in promoting agrarian reforms [2].

In the 1970s, the world panorama of the agricultural sector emerged, mainly in underdeveloped countries. Several studies show that the trade in agricultural products was subjected to significant changes, especially in the United States [3], [4].

In the second half of the twentieth century, large corporations developed new strategies concerning world trade in agro-industrial products. Europe took over as an agricultural power, influencing the design of foreign trade policies for products of agricultural origin, expanding its areas of influence to third world countries and the world economy [4].

Currently, large worldwide agro-industrial corporations control much of the world's trade in agricultural products. Six corporations trade 85% of the world's grain trade; eight corporations account for 55% to 60% of the world's coffee trade [5], [6].

The world agrarian economy has implemented different management models of agro-industrial production in the search for solutions to serious problems such as food security and sovereignty. For this, the industry's export potential has been strengthened, providing an opportunity for the

agricultural sector to expand its markets and increase production. However, the liberalization of world trade in agricultural products has contributed to improving the profits of big business, but not necessarily the situation of the poorest in rural areas [7].

Agricultural producers in developing countries generally grow fruits and legumes for their consumption, as well as local and national trade. However, these were later transformed into important export products, driven by large agro-industrial corporations [8].

According to [9] and [10], non-traditional exports such as preserves and canned goods have surpassed traditional ones, causing a decrease in food production, generating shortages and inflation, which is harmful to rural populations. On the other hand, due to this increase, health problems have multiplied, and the environmental impact resulting from the use of agrochemicals as a pesticide affects food sovereignty [11].

At this stage of the evolution of capitalism, a system has been strengthened where transnational companies of the agro-industrial sector prevail, working in the production of agricultural inputs and making large investments in research and development of agricultural matters [12].

Due to the implementation of the ISI system (Industrialization by Import Substitution) in Latin America, a new era began for medium and small agricultural producers, as most countries' central governments started promoting distributive policies in rural areas, such as agrarian extension programs, social security, provision of health services; all this in order to have better control over the trade union movements created at that time [13], [14].

From the 70s onwards, structural adjustments were implemented in Latin American countries, with negative consequences for the agricultural sector due to deregulation, openings, and privatization as the main strategy for economic reactivation. The consolidation of a global agri-food system under the patronage of large transnational corporations, plus the implementation of privatization policy, affected the rural sector by making it vulnerable [15].

The period of 90s welcomed a discussion about the rural approach to territorial development as a response to an impoverished rural society whose objective is to promote actions aimed at creating economic dynamism and social development from an endogenous process, all this in the search to improve the quality of life of the rural population [16].

The rural development process has been implemented to counteract the failure of the productivity system in the face of the increase in rural poverty, territorial inequalities, the decrease of the rural economy, and growing environmental unsustainability, among others [17].

When we talk about territory, we think of a space on earth's surface, but not all territories are subject to the transformation from the point of view of development. The rural approach to development promises results according to the organizational capacity of its population to enhance its resources by intensifying its productivity; for this, it is necessary to generate innovative changes in economic, political, administrative, and sociocultural management [18].

Authors such as [19] and [20] conclude that there are three types of territories with complex characteristics. The first, called natural territory, refers to how in a territory, it is possible to recognize elements of nature without human intervention. The second so-called intervened territory refers to a territory where man has installed transport, works, or productive extractive activities [21].

The third, so-called organized territory is the territory where there are activities of greater complexity and human settlements, regulated by a political system to define its competencies and jurisdiction. This third type of territory is subject to development processes [22].

On the other hand, the heterogeneity that characterizes territories within the same region or country hinders the design of public policies, requiring local planning adaptable to each reality; in this way, the effectiveness of the results will be guaranteed, achieving an improvement in the quality of life of the population [23].

It is possible to generate development from all human activity carried out from a territorial space, which is opposed to the traditional approaches of centralist growth, which concentrates on financial activity and services in large cities, and which also aims to generate economic and social well-being to dispersed populations from a unidirectional perspective, that is, with policies designed exclusively from above [24].

Rural development seeks to structure its actions of economic dynamism by creating associations and public networks, optimizing its competitive advantages, and favoring the local economy and social construction, turning the territories into protagonists of their change [25].

The rural approach to territorial development is an opportunity to create economic dynamism in rural areas living within a paradigm that places them as eminently agricultural sectors, where they do not know another method of generating economic income, other than the production of land and animals such as agriculture, livestock, aquaculture, and forestry, among others [26].

The agricultural sector plays a primary role in developing societies, ensuring adequate food and satisfying basic needs, especially in the search for food security. The growing trend towards caring for the environment, developed with greater force after World War II, has given rural development a more active role in economic growth and social development.

Income and employment in rural sectors are mostly generated from agricultural activity; therefore, on multiple occasions, the terms rural development and agricultural development have converged, thus these being considered synonymous. However, the different processes in the industrial revolutions, the diversification of productivity, the modernization of countries, and the current economic situation have differentiated these terminologies, expanding the concepts of each one from different circumstances and needs [27].

The rural environment is diverse with different realities, which can be improved toward social welfare and economic growth. For this, we remark the need to find allies that contribute towards the fulfilment of objectives and implementation of strategies [28].

This implies abandoning the paradigms that associate the rural approach to territorial development as a merely agricultural or welfare issue, and rather starting to pay attention to the potentialities of rural territories, which are not always only agricultural and require governance processes promoting and identifying other development spaces [29].

Rural development has to be considered as a strategy for social and economic growth by incorporating it into political agendas, from the creation of laws that favor rural development processes to promoting convergence efforts between actors in the territory, through alliances between the various management structures such as local governments, private companies or cooperatives, and social institutions [30].

Rural areas are prone to depopulation issues, causing severe demographic imbalances. The rural exodus is generated mainly through populations ranging in age between 20 and 24 years, who move to urban or metropolitan areas leaving rural areas whose economies are sustained by agricultural and livestock activities, without human capital for generational replacement, also causing negative vegetative growth rates, due to the reduction of births and the increase in the aging population [31].

In the case of Spain, where one of the main problems affecting rural areas is depopulation and low vegetative growth as a consequence, within the framework of the Common Agricultural Policy (CAP), initiatives such as PRODER, PRODER Transitory, PRODER A and LIDERA have been implemented. These programs have managed to subsidize 538 projects in the last 18 years [32].

Rural areas of the European Union pose a significant challenge to improving the quality of life of their citizens. The EU develops implementation programs to strengthen research and technological development, improve access to new technologies and quality of information, improve the competitiveness of SMEs, support towards a low-carbon economy, promote adaptation to climate change, protect the environment, promote sustainable transport, and improve the road network, promote sustainable and quality employment, promote social inclusion and combat poverty, invest in education and vocational training, promote an efficient public administration and foster the resilience of its inhabitants.

It is necessary to articulate specific measures for depopulated Spain that facilitate the development of new professional projects, the fixation of population, the attraction of talent, and sustainable use of our resources.

[33] measured the quality of services based on satisfaction by adopting citizen participation as a moderator. It used a structured questionnaire and collected data from 499 respondents. The method used was structural equation models (SEM); the result shows that the quality of information affects citizen satisfaction.

[34] have highlighted how rural residents' perceptions of sustainable tourism development can affect residents' intentions to support tourism. Using a sample of 881 residents living in rural areas of the Republic of Serbia, using the partial least squares (PLS) method, the result provided a better understanding of the factors that can impact residents' attitudes concerning tourism.

[7] presents different types of land use identifying the world's leading producers, exporters, and importers of agri-food products. The review of the state regulation system and support for raw material producers in Australia, Argentina, Brazil, the European Union, India, Indonesia, Canada, China, Russia, and the United States has been carried out taking into account the implementation of the international standards of the World Trade Organization.

Agricultural business models are being technified, have adapted to new technologies developed logistics models, marketing techniques, the sales system; changes in the structure of commodities along the sales channels in the internal and external market have been systematized [36].

[35] researched the relationship between motivation and visitor satisfaction. A questionnaire was distributed to visitors from a rural destination in

Spain, and the data were analyzed using ANOVA, factor analysis and cluster. The results verified that motivation is a determinant of the assessment of the visit.

Therefore, the rural approach to development is indispensable in the search for the well-being and progress of rural areas. The success or failure of its implementation as a territorial development strategy depends on the governance actions of public institutions, political, social, and economic actors of the territory who, from the different areas of management, are called to promote a public policy that strengthens an agricultural sector that has been historically neglected. This research aims to determine the quality of life of the rural population of the Region of Antequera through the construction of a synthetic social welfare index.

2. Methodology

This research proposes the creation of a synthetic index of well-being, obtained through the aggregation of a set of simple indicators, proposed by the OECD whose objective is to determine and compare the level of well-being between territories studied, for this variable that has been used in previous research were used to measure the quality of life of the populations.

This study was carried out in the territories of Alameda, Antequera, Casabermeja, Fuente de Piedra, Humilladero, Mollina, Villanueva de la Concepción, Ardales, Campillos, Sierra de Yeguas, Valle de Abdalajís, Villanueva de Algaidas, Archidona, Villanueva del Rosario, Colmenar, who are beneficiaries of the LEADER Community Initiative and the PRODER Endogenous Development Program of the European Union, the framework for institutionalization of the Common Agricultural Policy, and whose common characteristics make them appropriate territories for establishing a comparative index on the quality of life.

The proposed territories are located in the province of Malaga, south of Andalusia, south of Spain (Figure 1). This area is located in the logistics center of Andalusia, which makes it an ideal place for the installation of large distribution centers. Within the analyzed area, there are many urban and rural areas. The area has an endowment of quality services with large natural spaces, complemented by its wide agri-food, industrial and commercial economy. The area analyzed is an inland area, although close to the coast and maritime communications.

The population exceeds 50,000 inhabitants distributed among the 15 municipalities studied.

Tourism is one of the main factors of economic development of the territory. The cultural, archaeological, natural, historical, and leisure heritage have allowed a tourist market to be developed in terms of accommodation, hospitality, and cuisine that gives it the potential to position itself it as a high tourist territory.

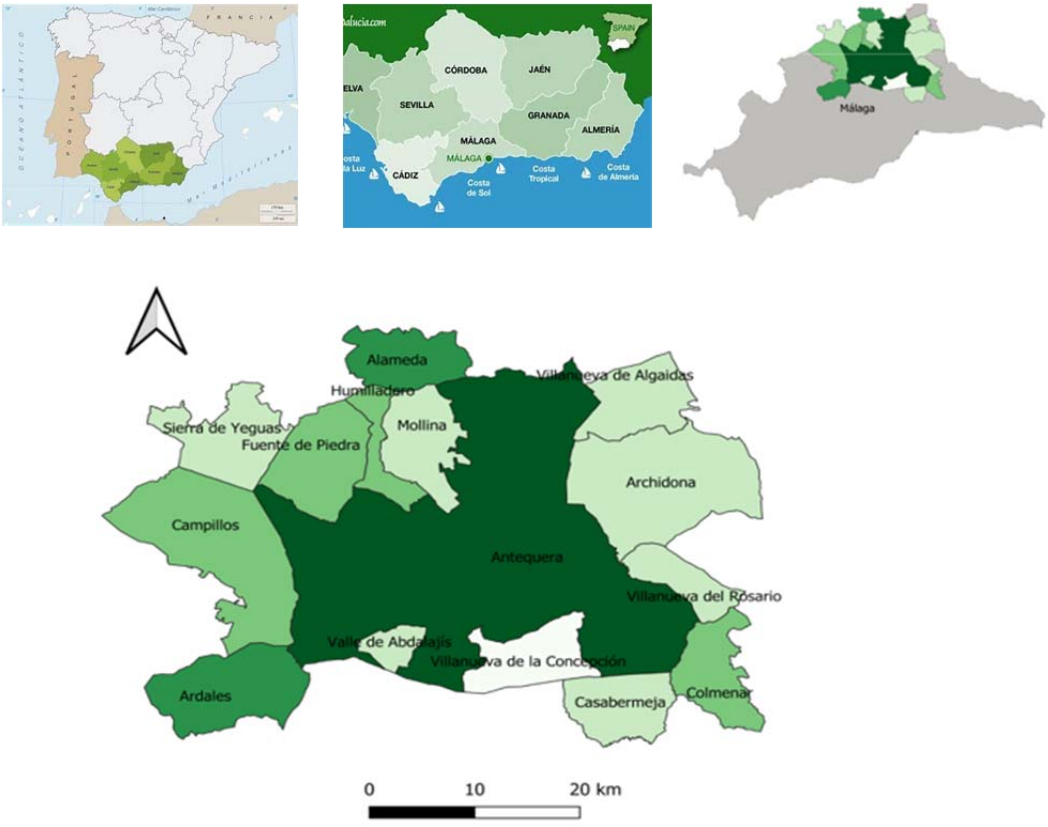

Figure 1. Location of the analyzed territories

From the agricultural point of view, these territories represent one of the most fertile areas of Andalusia, which favors a rich gastronomic offer based mainly on the Mediterranean diet. They are producers of vegetables, cereals, potatoes, asparagus, nuts, fruit trees, vines, and olive oil, indispensable in various dishes of the Mediterranean diet. This natural and historical wealth gained them the distinction of UNESCO's World Heritage Site.

The quality of road networks, its location in the center of Andalusia, and the tourist wealth of the area have led the territory to bet on rural tourism, favoring the development of the municipalities. The whole territory works together to promote tourism in national and international fairs.

Considering the territorial characteristics, in order to calculate the synthetic index of welfare, indicators previously validated in other research and proposed as indicators of well-being measurement by the OECD were selected (Table 1). The multivariate technique used to calculate the weights of the simple indicators proposed in this study is exploratory factor analysis to identify the factors that explain the correlations within the observed variables. For this, the respective normalization of the simple indicators was carried out, and then the rotated component matrix was extracted from which the relative weights of each indicator were obtained.

To calculate the synthetic well-being index, use the following formula:

$$IC = \sum_{i=1}^{n} (W_n IS_n)$$

In which:

CI = Weighted average of the simple, standardized indicators;
W_n = Weights or weights that are values between 0 and 1, whose sum is the unit;
IS_n = Normalized Single Indicator.

The weights are calculated from a set of simple indicators formed by measurable variables and that were previously normalized through a re-scaling process. All the variables have the same level of units of measurement to avoid disproportion in the weight of the significant variables.

The synthetic indicator is constructed as the weighted average of the values of the simple normalized indicators. Weighting estimates a composite index due to its influence on the result, which consists of assigning weights to add them in a single value. The factor analysis technique is applied to assign weights, obtain the latent variables, and calculate the variance of all the indicators explained by each factor.

Table 1. Indicators used to make the synthetic well-being index

Simple indicators	Definition	References
%VivIntBA13	% of homes with broadband internet access since 2013	[36], [37]
%PartEleccMun	% of participation in the last municipal elections. (2019)	[38], [37]
%PAMes	% of the labor force with at least secondary education	[40], [41]
TasEmPA	Employment rate of active population	[44], [42]. [43]
RentDisp	Average per capita income per household in euros/year, after tax	[45], [46], [47]
PobEstUni	% Population with university studies	[50], [48], [49]
ViviSerBa	%Homes with basic services	[51], [39]
CredProcElec	%Credibility in electoral processes	[53], [52], [54], [55]
IngDestAcRecre	Income from recreational activities	[57], [56]
EmpAdec	Percentage of adequate employment	[56], [59], [58]

The normalization was carried out through the re-scaling of the simple indicators applying the following formula:

$$z = \frac{x - x_{min}}{x_{max} - x_{min}}$$

Table 1 shows the indicators used in calculating the synthetic well-being index, suggested in previous studies to identify the level of social well-being of rural populations; the OECD proposed these indicators to identify the level of well-being of the member countries.

Table 2 shows a descriptive measure of the variables used, where variability is observed in the data concerning their mean.

To obtain the variance explained, the sum of the squares of the factorial loads of the indicators is calculated. Next, the normalization of the squares of the factorial loads is performed; for this, the square of the factorial load divided by the variance of the indicators explained by the factor is calculated.

The weights of each factor are obtained by means of the quotient between the variance of the indicators explained by each factor and the total variance of the retained factors. The weight of each indicator is calculated by weighting the maximum variability of this, explained by a factor, by the weight of the factor. The weights obtained are normalized by dividing by the sum of all of them so that the sum is the unit.

Table 2. Descriptive measures

Indicators	N		Stocking	Deviation	Variance
	Valid	Lost			
%VivIntBA13	15	0	86,000	5,103	26,035
%PartEleccMun	15	0	74,166	5,084	25,846
%PAMes	15	0	24,603	3,612	13,047
TasEmPA	15	0	33,440	2,095	4,391
RentDisp	15	0	14.988,21	1.069,32	1.143,64
EspzVida	15	0	82,900	2,756	7,597
PobEstUniv	15	0	60,286	16,941	286,989
VivSerBa	15	0	89,429	5,906	34,879
CredProcElec	15	0	31,643	10,412	108,401
EmplAdec	15	0	80,143	6,949	48,286
IngDestActRecre	15	0	30,071	6,498	42,225

The correlation matrix (Table 3) does not present significant correlations between indicators, except in the indicators adequate employment and percentage of people with university studies. However, its value is less than 0.80, so we do not consider removing them from the analysis.

3. Results

The KMO and Bartlett test is performed (Table 4). The KMO test indicates that it is considered appropriate to apply factor analysis since the value is higher than 0.60; that is to say, the relationships between variables suggest the applicability of this method; likewise, the Bartlett sphericity test shows a significant result.

Table 4. KMO and Bartlett test

Kaiser-Meyer-Olkin sampling adequacy measure		0,616
Bartlett sphericity test	Approx. Chi-square	53,942
	gl	55
	Sig.	0,0515

The matrix of commonalities (Table 5) exceeds 40% of the information retained in each variable, which is considered acceptable for analysis.

Table 3. Correlation analysis

		%VivIntBA13	%PartEleccMun	%PAMes	TasEmPA	RentDisp	EspzVida	PobEstUniv	VivSerBa	CredProcElec	EmplAdec	IngDestActRecre
	N	14	14	14	14	14	14	14	14	14	14	14
%VivIntBA13	Correlación de Pearson	1,000	0,363	-0,182	0,090	0,035	-0,019	0,131	0,181	0,373	-0,417	-0,204
	Sig. (bilateral)		0,202	0,533	0,759	0,906	0,950	0,655	0,535	0,189	0,138	0,484
%PartEleccMun	Correlación de Pearson	0,363	1,000	0,276	0,141	-0,038	-0,498	0,027	0,163	0,010	-0,317	0,427
	Sig. (bilateral)	0,202		0,340	0,631	0,898	0,070	0,926	0,577	0,973	0,269	0,128
%PAMes	Correlación de Pearson	-0,182	0,276	1,000	0,362	0,364	-0,238	0,151	-0,222	-0,292	-0,302	0,158
	Sig. (bilateral)	0,533	0,340		0,204	0,201	0,413	0,606	0,445	0,311	0,294	0,590
TasEmPA	Correlación de Pearson	0,090	0,141	0,362	1,000	0,091	0,202	0,047	0,225	-0,119	-0,441	0,170
	Sig. (bilateral)	0,759	0,631	0,204		0,758	0,488	0,873	0,439	0,685	0,114	0,561
RentDisp	Correlación de Pearson	0,035	-0,038	0,364	0,091	1,000	-0,123	0,162	-0,160	-0,355	-0,345	-0,396
	Sig. (bilateral)	0,906	0,898	0,201	0,758		0,674	0,581	0,584	0,213	0,227	0,161
EspzVida	Correlación de Pearson	-0,019	-0,498	-0,238	0,202	-0,123	1,000	-0,320	0,375	0,078	-0,066	-0,396
	Sig. (bilateral)	0,950	0,070	0,413	0,488	0,674		0,265	0,187	0,792	0,822	0,162
PobEstUniv	Correlación de Pearson	0,131	0,027	0,151	0,047	0,162	-0,320	1,000	-0,214	-0,161	-,636*	0,017
	Sig. (bilateral)	0,655	0,926	0,606	0,873	0,581	0,265		0,464	0,582	0,015	0,955
VivSerBa	Correlación de Pearson	0,181	0,163	-0,222	0,225	-0,160	0,375	-0,214	1,000	0,349	-0,174	-0,145
	Sig. (bilateral)	0,535	0,577	0,445	0,439	0,584	0,187	0,464		0,221	0,552	0,620
CredProcElec	Correlación de Pearson	0,373	0,010	-0,292	-0,119	-0,355	0,078	-0,161	0,349	1,000	0,068	-0,002
	Sig. (bilateral)	0,189	0,973	0,311	0,685	0,213	0,792	0,582	0,221		0,818	0,995
EmplAdec	Correlación de Pearson	-0,417	-0,317	-0,302	-0,441	-0,345	-0,066	-,636*	-0,174	0,068	1,000	0,214
	Sig. (bilateral)	0,138	0,269	0,294	0,114	0,227	0,822	0,015	0,552	0,818		0,462
IngDestActRecre	Correlación de Pearson	-0,204	0,427	0,158	0,170	-0,396	-0,396	0,017	-0,145	-0,002	0,214	1,000
	Sig. (bilateral)	0,484	0,128	0,590	0,561	0,161	0,162	0,955	0,620	0,995	0,462	

Table 5. Commonalities of indicators

Indicators	Initial	Extraction
ESCVivIntA13	1	0,771
ESCPartEleccMun	1	0,88
ESCPAMes	1	0,71
ESCTasEmPA	1	0,806
ESCRentDisp	1	0,843
ESCEspzVida	1	0,856
ESCPobEstUniv	1	0,95
ESCVivSerBa	1	0,681
ESCCredProcElec	1	0,618
ESCEmplAdec	1	0,936
ESCIngDestActRe	1	0,882

The variance to total explained (Table 6) indicates that the integration of all indicators into five factors provides a percentage of retained information is 81.20%.

The rotated component matrix is ordered from highest to lowest and shows us the variables associated with each of the five factors.

‣Factor 1: transparency in electoral information

This factor measures the degree of reliability in democratic participation processes, where the use of technologies is required to support the results and transparency of the process.

Therefore, the increase in the detailed indicators would result in an increase in the credibility of transparency in electoral information by the population:

Table 6. Total Variance Explained

Component	Initial eigenvalues			Sums of loads squared from the extraction			Sums of charges squared in the rotation		
	Total	% variance	% Cumulative	Total	% variance	% Cumulative	Total	% variance	% Cumulative
1	2,559	23,261	23,261	2,559	23,261	23,261	1,997	18,151	18,151
2	2,108	19,162	42,423	2,108	19,162	42,423	1,986	18,053	36,205
3	1,893	17,213	59,636	1,893	17,213	59,636	1,716	15,599	51,804
4	1,41	12,816	72,452	1,41	12,816	72,452	1,629	14,813	66,616
5	0,963	8,755	81,207	0,963	8,755	81,207	1,605	14,591	81,207
6	0,635	5,776	86,983						
7	0,584	5,307	92,291						
8	0,409	3,722	96,012						
9	0,25	2,274	98,286						
10	0,169	1,534	99,821						
11	0,02	0,179	100						

Table 7. Rotated component matrix

	Component				
	1	2	3	4	5
ESCVivIntA13	**0,775**	0,216	0,015	0,262	-0,234
ESCCredProcElec	**0,714**	-0,033	-0,134	-0,101	0,281
ESCPartEleccMun	**0,610**	-0,188	0,457	-0,247	0,062
ESCVivSerBa	0,288	**0,857**	0,251	0,000	0,018
ESCEspzVida	0,174	**0,808**	0,361	-0,206	-0,020
ESCTasEmPA	-0,055	0,013	**0,889**	0,107	0,035
ESCPAMes	-0,463	0,433	**0,464**	0,059	-0,299
ESCPobEstUniv	-0,101	0,078	-0,021	**0,966**	-0,011
ESCEmplAdec	-0,244	-0,080	-0,514	**0,698**	0,345
ESCRentDisp	-0,230	0,091	0,067	0,103	**0,876**
ESCIngDestActRe	-0,245	0,555	0,147	-0,041	**0,700**

Note. *Extraction method: a main component analysis. Rotation method: Varimax with Kaiser normalization. The rotation has converged in 11 iterations.*

The method of factorial analysis presents, as a result, five factors (Table 7), which we have classified according to the 11 indicators distributed in each factor.

Therefore, the main factors for the calculation of the synthetic well-being index are: 1) Transparency and electoral information, [60] and [61], 2) Quality of life, [62], 3) Job opportunities [63], 4) Qualified active population [64] and, 5) Likelihood to consume [65]. The factors and the composition of their variables are shown below:

- Percentage of homes with broadband internet access since 2013;
- Percentage of credibility in electoral processes;
- Percentage of participation in the last municipal elections (2019).

‣ Factor 2: Quality of life

This factor measures the improvement in the population's quality of life. Therefore, the indicators that measure the quality of life of this factor are:

- Percentage of housing with basic services;
- Life expectancy.

An increase in the percentage of housing with basic services and the population's life expectancy would increase the quality-of-life factor.

‣ Factor 3: Job opportunities

This factor measures job opportunities based on the education received; therefore, it brings together the following indicators in one factor:

- The employment rate of active population;
- Percentage of the labor force with at least secondary education;

This means that if more people have access to secondary education, job opportunities will improve.

‣ Factor 4: employed population qualified

This factor measures the population qualified to hold positions of higher hierarchy; therefore, the increase in the detailed indicators would increase in the Qualified Active Population:

- Percentage of population with university education;
- Percentage of adequate employment.

‣Factor 5: Likelihood to consume

Table 8. Composite Index Weights

Weight in the Compound Index	Weight 0-1	
ESCVivIntA13	0,092	1
ESCCredProcElec	0,078	2
ESCPartEleccMun	0,057	3
ESCVivSerBa	0,112	4
ESCEspzVida	0,100	5
ESCTasEmPA	0,121	6
ESCPAMes	0,033	7
ESCPobEstUniv	0,142	8
ESCEmplAdec	0,074	9
ESCRentDisp	0,116	10
ESCIngDestActRe	0,075	11
Total	1,000	

Table 9. Well-Being Index by Municipality

MUNICIPALITY	WELL-BEING INDEX
ALAMEDA	0,65
CASABERMEJA	0,45
FUENTE DE PIEDRA	0,54
HUMILLADERO	0,53
ANTEQUERA	0,75
MOLLINA	0,49
VILLANUEVA DE LA CONCEPCIÓN	0,34
ARDALES	0,64
CAMPILLOS	0,56
SIERRA DE YEGUAS	0,48
VALLE DE ABDALAJIS	0,48
VILLANUEVA DE ALGAIDAS	0,48
ARCHIDONA	0,44
VILLANUEVA DEL ROSARIO	0,49
COLMENAR	0,59

This factor includes the level of disposable income and the amount destined for recreational consumption; therefore, it measures the likelihood to consumption that the population has in terms of disposable income. An increase in the detailed indicators will increase the factor mentioned above.

- Disposable income;
- Income for leisure activities.

‣ Calculation of the well-being index

Once the number of factors for this study has been determined, the weights of the indicators selected to calculate the well-being index have been calculated (Table 8).

As a result, the well-being indices of the municipalities under study were obtained (Table 9).

4. Discussion and Conclusions

The well-being index (Table 9) of the Municipality of Antequera of 0.75 differs from the other municipalities studied. The region of Antequera is the head of the region, which favors greater accessibility to public service institutions such as primary health centers, increasing the level of the general well-being of the population [66] and [67]. In the municipalities of Alameda, Casabermeja, Fuente de Piedra, Humilladero, Mollina, Ardales, Campillos, Sierra de Yeguas, Valle de Abdalajís, Villa Nueva de Algaidas, Archidona, Villa Nueva del Rosario and Colmenar, homogeneous welfare indices are observed, ranging between 0.44 and 0.65. This is because they share common characteristics in aspects such as rate of youth and aging, distance to the capital, number of homes of the principal residence, primary care in health centers, motorization index, rate of evolution of the population of the last ten years, total dependency rate that establishes the relationship of the economically inactive population with the economically active, rate of public expenditure directed to retirees, rate of youth, rate of renewal of the active population, rate of migration, vegetative growth, populations close to large regional communication hubs, in addition to their source of income, which comes from the primary and secondary sector [68] and [69].

On the other hand, the only municipality with a low social welfare index of 0.34 is Villa Nueva de la Concepción. This is due to particularities such as negative vegetative growth, lack of higher education centers, lack of infrastructure, lack of public health centers, low tourist participation, among others [69].

In general, the Common Agricultural Policy has dramatically boosted the development of rural territories in Spain, particularly in Andalusia, because it is a territory with productive potential due to its natural, cultural, and social capital, possessing large nodes of terrestrial communication. The LEADER Community Initiative and the PRODER Endogenous Development Program of the European Union, within the PAC framework, have made a tremendous economic contribution with guidelines to develop strategies focused on rural development through the Regional Action and Local Development Group. They manage funds for business initiatives and carry out advisory work, dynamization, training, and tourism promotion within the territories.

So far, Spain has benefited from programs such as PRODER, PRODER Transitory, PRODER A, and LIDERA Program, within the framework of the PAC, which have sponsored about two hundred initiatives that have managed to subsidize 538 projects between the years 1997-2015, managing to strengthen the territories and as a result, a homogeneous well-being

index (Table 9). Some of the aspects achieved by these rural development initiatives are the construction of a robust business fabric within the LEADER area, in addition to the perception of the agricultural sector as a dynamist of the area and focus of work, enhancement of cultural, natural, social, political capital, strengthening connectivity through the fiber-optic network, strengthening the road network, active associations that encourage social participation.

The province of Malaga has structurally homogeneous territories, with common sociodemographic characteristics, whose economic fabric is made up of activities that go beyond the agricultural, livestock, and fishing areas, which makes them adaptable territories to joint planning based on the design of public policy that guarantees effectiveness in the field of economic and social development generating improvement in the quality of life in rural [70] and [71] areas.

- Limitations of the study and future lines of research

Few studies establish synthetic indices of well-being in rural areas of Spain; therefore, the results obtained are not comparable with other previous research.

This research paper has been carried out in fifteen rural territories with homogeneous sociodemographic characteristics in the province of Malaga, which is a limitation since more territories could be included. The sample size should therefore be extended in future work. It would also be essential to extend it to other provinces in southern Spain.

It would be desirable to replicate this study in rural areas of Latin America in order to determine the level of well-being among countries in the region and establish differentiation in the quality of life of rural populations.

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