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Review

Progress towards achieving the 17 sustainable development goals: the role of governance, democracy and well-being

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Abstract
The literature identifies governance, democracy, and well-being as non-economic factors favorable to achieving the 2030 Agenda. However, little has been explored about the relationship between these factors on the 17 SDGs and the axes of the Agenda: People, Planet, Prosperity, Peace, and Partnership. The study seeks to contribute along this line, identifying the factors related to governance, democracy, and well-being that influence the achievement of the 17 SDGs. Using statistical models, we estimate the influence of five independent variables: government effectiveness, the status of democracy, personal autonomy and individual rights, welfare regime, and subjective well-being on achieving each of the 17 SDGs. The findings, which highlight the crucial role of the welfare regime and subjective well-being, particularly in the objectives of the Person, Planet, and Peace axes, provide a significant advancement in our understanding of sustainable development and practical insights for policymakers and practitioners. The welfare regime is positive and significant in ten of the fourteen analyzed models, while subjective well-being is significant in six. Contrary to expectations, government effectiveness is only positive in some SDGs and adversely affects the Planet axis, highlighting the need to integrate sustainability criteria into public policies. For its part, democracy negatively affects several SDGs, possibly due to factors such as political instability and electoral cycles. The article's findings provide critical insight into how governance, democracy, and well-being can facilitate or, in some cases, hinder sustainable development, guiding the development of more balanced and sustainable policies in the future.

Keywords 2030 agenda · SDGs · Governance · Democracy · Well-being · Multiple linear regression

1 Introduction

In 2015, the 2030 Agenda for Sustainable Development was adopted by the member countries of the United Nations, declaring 17 Sustainable Development Goals (SDGs) to ensure a sustainable future for all, address poverty, inequality, climate change, environmental degradation, and other challenges, to achieve prosperity for all countries by the year 2030 [1]. Nine years later, achieving the goals still seems far away, which can have devastating consequences for sustainable global development and the quality of life of millions of people [2], making it necessary to redouble efforts at a global level [3]. The 17 SDGs of this Agenda are grouped around five axes [4].

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1. *People*: SDG 1—No Poverty, SDG 2—Zero Hunger, SDG 3 – Good Health and Well-being, SDG 4—Quality Education, and SDG 5—Gender Equality
2. *Planet*: SDG 6—Clean Water and Sanitation, SDG—12 Responsible Consumption and Production, SDG 13—Climate Action, SDG 14 – Life Below Water, and SDG 15—Life on Land
3. *Prosperity*: SDG 7—Affordable and Clean Energy, SDG 8—Decent Work and Economic Growth, SDG 9—Industry, Innovation and Infrastructure, SDG 10 – Reduced Inequalities, and SDG 11—Sustainable Cities and Communities
4. *Peace*: SDG 16—Peace, Justice and Strong Institutions
5. *Partnership*: SDG 17—Partnership for the Goals

Progress towards meeting the goals of these 17 SDGs has been slower than expected: only 17% of the targets are on track to be achieved by 2030, a further 18% show moderate progress, 30% show marginal progress, 18% denote stagnation, and 17% show a decline compared to 2015 levels [5]. The challenges we face, including the effects of the COVID-19 pandemic, geopolitical conflicts, the climate crisis, persistent inequalities, and systemic deficiencies in the global economic and financial system, are not isolated but global and interconnected [5]. In recent years, various studies have explored the factors contributing to or hindering the fulfillment of the SDGs [6–10]. Research indicates that a country's income level, economic growth, and appropriate financial policies are crucial to progress toward the SDGs [3, 11–13]. However, international trends in research seek to abandon the Gross Domestic Product (GDP) as the primary indicator of national prosperity and advance in developing indicators that also include environmental and social aspects of progress [14]. Therefore, it is crucial to examine what other political and social elements can influence this progress towards the 2030 Agenda [15].

One stream of research has provided compelling evidence that democracy is a pivotal factor in developing the SDGs. It encourages investment in health and education, creates robust institutions, and promotes political and economic stability [6, 16–18]. As Mohammadi et al. [6] indicated, democracy facilitates the accumulation of physical, human, social, and political capital, creating a conducive environment for sustainable development. On the other hand, research indicates that good governance and solid and effective government institutions positively affect achieving the 2030 Agenda [12, 13, 19–23]. Good governance, which involves transparent and accountable decision-making processes, is linked to improved economic performance and well-being, as it contributes to political stability and trust in institutions, which is essential to attract investment and foster an enabling environment for sustainable development [20, 23]. Good governance is also considered conducive to other factors critical to growth, such as human capital development and technological innovation [12, 21]. Another perspective gaining traction is the role of social and subjective well-being in meeting the goals of the SDGs [24, 25]. Research by Morales-Casetti et al. [22] concludes that the welfare regime and subjective well-being significantly impact the aggregate achievement of the 2030 Agenda.

Considering the previous arguments and recognizing that there may be different relationships between the relevant factors and the axes of the 2030 Agenda: *People*, *Planet*, *Prosperity*, *Peace*, and *Partnership*, this article studies some non-economic factors to identify those related to the governance, democracy, and well-being that influence the achievement of the 17 SDGs. Specifically, it seeks to determine the relationship between the effectiveness of the government, the status of democracy, the existence of personal autonomy and individual rights, the welfare regime, and subjective well-being on the fulfillment of each SDG.

The study uses a quantitative methodology to investigate how independent variables influence the achievement of each of the 17 objectives of the 2030 Agenda. As in [15], the multiple linear regression method is used to estimate 17 models, but unlike that study, this one incorporates dimensions related not only to governance but also those that account for the state of democracy and well-being. In addition, the levels of compliance with the 2030 Agenda are updated through the SDG Index for the year 2023, measured for a greater number of observation units (163 countries). The information comes from reputable public databases, such as *The Quality of Government Basic Dataset* [26] and *Sustainable Development Report 2023* [27]. The results show that the welfare regime, subjective well-being, personal autonomy and individual rights are the most relevant factors for achieving the SDGs in the five axes of the 2030 Agenda. Meanwhile, the effectiveness of the government and the status of democracy have inconclusive effects on this ambitious global agenda, showing, in many cases, a negative relationship with achieving the 2030 goals. Thus, the findings suggest that countries that manage to improve the well-being of their inhabitants or that had a level of higher well-being in previous years have a greater probability of achieving goals concerning those who are more vulnerable or disadvantaged.

This study contributes to understanding the critical determinants for achieving the SDGs in their five axes. Firstly, it tests five hypotheses to provide empirical evidence on the relationship between institutional, political, and social factors and the fulfillment of the goals of each of the 17 SDGs, contributing to the current literature on the importance of other

factors that can influence the sustainable development of countries. Secondly, it enriches previous literature highlighting the importance of well-being on the 2030 Agenda, finding that the well-being regime and subjective well-being contribute positively to achieving the SDG goals. The rest of the article is structured as follows. Section 2 explores the relevant literature on possible determinants of achieving the 2030 Agenda and develops the research hypotheses. Section 3 describes the research methodology, considering the variables, data sources, and statistical methods used to test the hypotheses. Section 4 indicates the results, and Sect. 5 discusses the findings. Finally, Sect. 6 shows the conclusions.

2 Literature review

Sustainable development is understood as meeting the needs of the present without compromising the ability of future generations to satisfy their own needs. It is based on three pillars: economic, social, and environmental, which must be integrated to achieve sustainable development [28]. This is the development sought by the 2030 Agenda, whose achievement seems distant, making it necessary to identify the factors that influence its development. One of them is economics, where inclusive and sustainable economic growth is a crucial factor for achieving these, given that economic policies that promote growth must consider inequalities and ensure that the benefits of economic development reach all sectors of society [21]. Çağlar and Gürler [19] found that GDP *per capita* and human capital are significantly and positively related to the SDGs. Likewise, fiscal and financial policies play a fundamental role in mobilizing resources for sustainable development, where effective fiscal policies can generate sufficient revenue to finance social and environmental programs, while appropriate financial policies can attract investments necessary for sustainable development [29].

Research studies have analyzed how institutional factors, particularly governance, influence the advancement of SDGs. This research defines governance as the decision-making, management, and implementation of public policies that guarantee quality, transparency, inclusion, and participation [1–3, 6, 15]. A group of studies maintains that good governance is linked to better economic performance and well-being [20, 23], highlighting the connection between governance and factors critical for growth, such as human capital and technological innovation [12, 21, 30]. Therefore, governance is assumed to be a crucial determinant of sustainable development, as strong and effective government institutions can implement policies and programs that favor this type of development [21]. For example, Gariba et al. [30] demonstrate that the digitalization of the public sector positively affects sustainable economies, as it improves operational efficiency, reduces waste, and reduces production costs for companies, thus contributing to economic sustainability. On the other hand, Sachan et al. [31] state that most studies confirm that good governance helps combat carbon emissions, improving environmental quality. However, Mazenda and Cheteni [20] warn that for good governance to improve well-being, it is necessary to have solid policies that safeguard an equitable income distribution to contribute to sustainable social development.

Additionally, since democratic governance involves greater political participation, the existence of the rule of law, and the stability of democratic institutions, it is expected to significantly impact achieving the SDGs [23, 32, 33]. Rodríguez et al. [23] suggest that citizen participation improves the legitimacy and effectiveness of public policies, promoting sustainable development by actively involving citizens in decision-making. Rout and Gochhayat [33] found that government effectiveness negatively affects GHG emissions and supports sustainability. Morales-Casetti et al. [22] show that government effectiveness has a significant positive effect on achieving the 2030 Agenda, being one of the most influential factors, which is why they affirm that countries with solid and effective institutions are more likely to achieve sustainable development goals. From the above, the first hypothesis, H_1, is proposed*: Better governance positively influences the achievement of each of the 17 SDGs.*

Democracy is another factor that plays a fundamental role in developing the SDGs; it is defined as a political system that is characterized by active citizen participation, accountability, the protection of individual freedoms and human rights, and the establishment of inclusive institutions that promote economic growth, political stability, and collective well-being and development [6, 16–18]. Democracy can contribute to achieving the 2030 agenda by promoting policy coherence, citizen participation, institutional design, and alignment of public and private interests with sustainability [34]. Furthermore, the coherence of public policies in a democratic system ensures that development interventions are effective and equitable, maximizing their benefits and minimizing adverse effects [3]. Çağlar and Gürler [19] found that the Human Freedom Index is positively and significantly related to the achievement of the SDGs, so the institutions associated with a democratic regime are vital for the progress of the SDGs, ensuring that policies and rights that they promote, align with the global development agenda [3, 23, 33, 34]. Likewise, Morales-Casetti et al. [22] conclude that the status of democracy has a positive and significant effect on the achievement of the 2030 Agenda, emphasizing that

countries with more robust and participatory democracies are more likely to meet the SDG goals since a stable political environment promotes the implementation of public policies consistent with sustainable development objectives. Based on these findings, two hypotheses are proposed: H_2: *A better status of democracy positively influences the achievement of each of the 17 SDGs*, and H_3: *The existence of personal autonomy and individual rights positively influences the achievement of each of the 17 SDGs*.

For United Nations [35], social factors play a crucial role in advancing sustainable development, so investing in social well-being is essential to improve people's quality of life and promote economic development. There are two relevant dimensions to consider regarding the concept of well-being. First, the welfare regime is understood as the broad system of welfare provision that includes the State and other actors (market, family, social organizations) [36, 37], and secondly, subjective well-being refers to people's perception of how they evaluate and experience their lives [38].

Regarding the first dimension, it is stated that ensuring healthy lives, promoting well-being at all ages, investing in social security, and increasing childhood vaccination coverage contribute to fulfilling the commitment to"leave no one behind"from the 2030 Agenda [5, 8]. Social protection systems play a vital role in achieving the SDGs, especially in the fight against poverty and inequality, as these systems not only provide essential support to the most vulnerable people but also help build more resilient communities and equitable, which also demonstrates how guaranteeing social security can offer real opportunities, promote economic growth and move towards a fairer future for all [39]. Similarly, investing in quality education empowers people, improves their economic opportunities, and promotes social and environmental development, contributing to achieving the SDGs [40]. Likewise, gender equality is essential for progress towards the SDGs, as gender discrimination and lack of equal opportunities hinder development [41]. Social factors such as welfare and social security, quality education, and gender equality are fundamental to driving sustainable development and achieving the SDGs, ensuring everyone has the opportunities and resources necessary to thrive. A robust welfare regime characterized by social safety nets and equal opportunities considerably increases the level of achievement of the SDGs [22]. Therefore, it is relevant to delve deeper into identifying the particular effect of the well-being regime on each of the SDGs since, theoretically, a higher level of pre-existing well-being is expected to facilitate achieving the goals related to the five axes of Agenda 2030. Based on these previous results, hypothesis H_4 is proposed: *The existence of a welfare regime positively influences the achievement of each of the 17 SDGs*.

Regarding the second dimension, subjective well-being, [42] found a strong positive promotion between the majority of the SDGs—measured through the SDG Index for the year 2029—and the standard measure of subjective well-being of the World Happiness Report. Morales-Casetti et al. [22] conclude that countries where people are more satisfied with their lives tend to advance more quickly in meeting SDGs. Therefore, a fifth hypothesis, H_5, is added: *Greater subjective well-being positively influences the achievement of each of the 17 SDGs.*

Considering the results of this theoretical review highlighting the importance of institutional, political, and social factors in achieving the 2030 Agenda, this article aims to identify the factors related to governance, democracy, and well-being that influence achieving the 17 SDGs. By understanding how these interrelated factors influence progress toward each goal, more effective policies and strategies can be developed to promote sustainable and equitable development.

3 Data and analysis

We estimate 17 multivariate linear regression models, seeking to analyze the relationship between a dependent variable and several independent variables [43] to approve or refute the hypotheses raised above. For this, cross-sectional data was considered, considering the value of the dependent variable for the year 2023. Each hypothesis makes use of a specific variable obtained from different data sets. The operationalization of the independent variables considered and their measurement method are explained in detail below:

Governance is assessed through one of the dimensions of The Worldwide Governance Indicators data set, government effectiveness (wbgi_gee), since it is directly related to the results of the government in power. This variable takes values from −2.5 to 2.5; the most recent information corresponds to 2019. In order to only have positive values from 0 to 5, the variable was recoded, resulting in a new index through the formula gov_effect = wbgi_gee + 2.5.

Democracy is measured with two variables related to hypotheses 2 and 3. The status of democracy (bti_ds) is a continuous variable that takes values from 1 to 10, with 1 being the worst status and 10 being the best. The variable weighs five criteria: statehood (the ability to act as a sovereign State), political participation, rule of law, stability of democratic institutions, and political and social integration. The variable personal autonomy and individual rights (fh_pair) corresponds to an assessment of the control exercised by the State over a series of freedoms such as movement, choice of residence, employment, private

property, creating companies, gender equality, choice of marriage partner and family size, equal opportunities, absence of economic exploitation, among others. It takes discrete values between 0 (worst situation) and 16 (best situation). In both cases, the most recent information is from 2019.

Well-being considers two variables and contributes to hypotheses 4 and 5. The welfare regime (bti_wr) is a continuous variable that evaluates whether there is a social security system that compensates for social risks and the existence of equal opportunities. The rating range goes from 1 (lowest) to 10 (highest). The information used is from 2019. Subjective well-being is approximated with the global life satisfaction index (whr_hap) and is calculated using the Cantril scale on people's current quality of life. It takes values from 0 (the worst possible life) to 10 (the best). Information corresponding to the year 2020 was used.

Together, these variables provide a broad view of each country's situation. Analyzing them in an integrated way makes it possible to identify patterns and relationships between government effectiveness, democracy, and well-being, offering a deeper understanding of the factors contributing to sustainable development in different contexts. The data collected for each variable from *The Quality of Government Basic Dataset* [26] generated a database with information from 163 countries.

Table 1 shows the results of the descriptive analysis carried out with the IBM SPSS Statistics 23 software, where it is observed that:

i. The average value of government effectiveness (gov_effect) is 2.457, with the minimum value being 0.12 in South Sudan and the maximum value being 4.7 in Singapore. The standard deviation is 0.996.
ii. The mean of the status of democracy (bti_ds) is 5.551, where the maximum value of 9.9 is found in Uruguay, while the minimum value is 1.5 and is represented by Somalia. The standard deviation is 2.015.
iii. Regarding personal autonomy and individual rights (fh_pair), the average is 9.16, the lowest index being 0, present in Syria, South Sudan, Somalia, and the Central African Republic. Canada, Finland, Ireland, Luxembourg, Netherlands, Norway, and Sweden share the highest of 16. The standard deviation is 4.145.
iv. The welfare scheme (bti_wr) has a mean value of 5.031. Its minimum value is 1.0, observed in the Democratic Republic of the Congo, Somalia, and Sudan, while the maximum is 9.5 in the Czech Republic. The standard deviation is 1.835.
v. The mean value of subjective well-being (whr_hap) is 5.506, while the minimum value is 2.4 in Afghanistan, and Finland has a maximum value of 7.8. The standard deviation is 1.161.

The dependent variable in the 17 regression models, SDG_i *Index*, is the fulfillment at the country level, of each of the 17 SDGs for 2023 [27]. These indices are measured on a scale from 0 to 100 and can be interpreted as a percentage of achievement of the goals that make up each SDG.

The regression equation is expressed as follows:

$$SDG_i Index = \beta_0 + \beta_1 \text{gov\_effect} + \beta_2 \text{bti\_ds} + \beta_3 \text{fh\_pair} + \beta_4 \text{whr\_hap} + \beta_5 \text{bti\_wr} + \mu$$

4 Results

Seventeen multiple regression models were specified and estimated to identify the contribution of a series of factors to achieving each of the 17 SDGs. Statistical analysis was performed with IBM SPSS Statistics 23 software for a base of 163 countries, of which 43 had incomplete data, so the estimation was made for a valid *N* of 120 countries. The

Table 1 Descriptive statistical analysis

	gov_effect	bti_ds	fh_pair	bti_wr	whr_hap
N	163	129	163	129	147
Mean	2.457	5.551	9.16	5.031	5.506
Minimun	0.12	1.5	0	1	2.4
Maximun	4.7	9.9	16	9.5	7.8
Standard deviation	0.996	2.015	4.145	1.835	1.161

Source: Own work

Table 2 Results of multiple regression analysis for the people axis

Model Nº (SDG Nº)	1		2		3		4		5	
Adj. R^2	0.397		0.335		0.757		0.536		0.324	
F-value	16.653		12.994		75.021		28.440		12.41	
Signif	0.000		0.000		0.000		0.000		0.000	
Durbin-Watson	1.985		2.163		2.107		2.205		1.845	
N	120		120		120		120		120	
	β	Sig	β	Sig	β	Sig	β	Sig	β	Sig
const	−24.895	0.103	39.264	0.000	4.312	0.418	26.306	0.003	36.328	0.000
gov_effect	3.894	0.536	4.614	0.019	5.320	0.017	4.447	0.225	0.599	0.832
bti_ds	−0.200	0.943	−1.077	0.219	−3.406	0.001	−6.466	0.000	−2.051	0.107
fh_pair	0.341	0.845	0.969	0.075	0.726	0.234	3.357	0.001	1.649	0.037
bti_wr	7.212	0.030	0.048	0.962	6.071	0.000	5.807	0.003	3.294	0.027
whr_hap	8.741	0.009	1.599	0.123	5.980	0.000	3.192	0.100	0.812	0.587

Source: Own work

Table 3 Results of multiple regression analysis for the planet axis

Model Nº (SDG Nº)	6		12		13		14		15	
Adj. R^2	0.672		0.656		0.486		0.038		0.183	
F-value	49.747		46.375		23.510		1.948		6.335	
Signif	0.000		0.000		0.000		0.920		0.000	
Durbin-Watson	1.929		1.910		1.892		2.191		2.376	
N	120		120		120		120		120	
	β	Sig	β	Sig	β	Sig	β	Sig	β	Sig
const	28.709	0.000	120.457	0.000	128.527	0.000	17.607	0.311	64.703	0.000
gov_effect	−1.737	0.286	−3.482	0.029	−10.811	0.000	7.499	0.297	−11.217	0.000
bti_ds	−2.056	0.005	0.269	0.704	1.381	0.267	−0.465	0.885	2.321	0.089
fh_pair	0.773	0.000	0.796	0.071	2.180	0.005	2.580	0.196	−0.379	0.651
bti_wr	3.577	0.000	−4.103	0.000	−2.715	0.063	−5.268	0.162	5.083	0.002
whr_hap	3.547	0.000	−2.885	0.001	−5.745	0.000	4.035	0.288	1.969	0.219

Source: Own work

results in Tables 2, 3, 4 and 5 show that 15 of the 17 models were statistically significant (*F* statistic is significant at a significance level of 0.05). Models 10 and 14, corresponding to SDG 10—Reduced Inequalities and SDG 14—Life Below Water, were not significant and will therefore be excluded from the analysis. Furthermore, given that the adjusted R^2 coefficient of model 15 is very low, explaining only 18% of the variability in the achievement of SDG 15—Life on Land, this model was also excluded from the analysis. The other adjusted R^2 coefficients vary from a minimum value of 0.280 in the case of SDG 17—Partnerships to achieve the Goals, to 0.770 in model 9, managing to explain 77% of the variability in the achievement of SDG 9—Industry, innovation, and infrastructure. The non-autocorrelation of the residuals could be ensured with the Durbin-Watson *d* statistic, which obtained values located within the non-rejection zone concerning the null hypothesis of no autocorrelation in models 1, 2, 3, 4, 5, 6, 7, 11, 12, and 13 ($1.7896 < d < 2.2104$, with $d_l = 1.664$ and $d_u = 1.7896$) [44]. In the case of models 8, 9, 16, and 17, the *d* statistic fell in the uncertainty zone, so the null hypothesis of no autocorrelation cannot be affirmed or rejected. However, it is considered possible to interpret the results.

In the People axis, the results show that none of the five explanatory variables is significant in all the SDGs. Of the factors tested, the welfare regime is positively and significantly related to 4: SDG 1, SDG 3, SDG 4, and SDG 5, partially fulfilling

Table 4 Results of Multiple Regression Analysis for the Prosperity Axis

Model Nº (SDG Nº)	7		8		9		10		11	
Adj. R^2	0.580		0.579		0.770		0.042		0.621	
F-value	33.853		33.668		80.533		2.048		40.023	
Signif	0.000		0.000		0.000		0.077		0.000	
Durbin-Watson	1.839		1.726		2.279		1.979		2.063	
N	120		120		120		120		120	
	β	Sig	β	Sig	β	Sig	β	Sig	β	Sig
const	3.385	0.648	40.565	0.000	−7.363	0.219	41.656	0.013	16.724	0.007
gov_effect	−0.223	0.942	0.933	0.498	15.439	0.000	−11.799	0.086	4.832	0.058
bti_ds	−4.434	0.002	−0.009	0.988	−3.052	0.007	−0.881	0.773	−3.516	0.002
fh_pair	1.115	0.191	0.676	0.078	0.277	0.685	−0.405	0.83	1.343	0.057
bti_wr	7.763	0.000	1.046	0.148	5.887	0.000	9.800	0.007	3.687	0.006
whr_hap	6.045	0.000	3.311	0.000	0.677	0.604	−0.642	0.859	6.036	0.000

Source: Own work

Table 5 Results of Multiple Regression Analysis for the Peace and Partnerships Axes

Model Nº (SDG Nº)	16		17	
Adj. R^2	0.663		0.280	
F-value	47.888		10.272	
Signif	0.000		0.000	
Durbin-Watson	2.235		1.741	
N	120		120	
	β	Sig	β	Sig
const	23.69	0.000	41.992	0.000
gov_effect	6.094	0.001	−4.177	0.085
bti_ds	−0.447	0.574	−1.159	0.284
fh_pair	−0.267	0.588	1.298	0.054
bti_wr	3.979	0.000	4.036	0.002
whr_hap	0.858	0.361	0.305	0.811

Source: Own work

hypothesis H_4. It is also important to note that the status of democracy has a negative influence on two SDGs, contrary to what is expected from theory and hypothesis H_2. Table 2 shows that the achievement of SDG 1—No Poverty, is highly and positively affected by a welfare regime and people's subjective well-being since both variables are statistically significant. It is observed that for each point at which the well-being regime increases, the achievement of SDG 1 increases by 7.212, and for each point at which subjective well-being increases, SDG 1 increases by 8.741. Furthermore, the estimated model explains 39.7% of the variation in SDG 1 (adjusted $R^2 = 0.397$). For SDG 2, only government effectiveness contributes in a highly positive and significant way to achieving the Zero Hunger goals, so for every point that government effectiveness increases, the SDG increases by 4.614. In this case, the model explains 33.5% of the variation in the achievement of SDG 2 (adjusted $R^2 = 0.335$). In model 3, it is observed that all independent variables are significant except personal autonomy and individual rights. The variables government effectiveness, welfare regime, and subjective well-being have a high, positive, and significant relationship on the achievement of better health and the goals of SDG 3, with β values greater than five. Contrary to what was expected, the status of democracy has a negative influence on compliance with SDG 3. Notably, this model presents the best fit in the People axis, explaining 75.7% of the variability in achieving Good Health and Well-being goals (adjusted $R^2 = 0.757$). Concerning model 4, the variables status of democracy, personal autonomy and individual rights, and welfare regime were significant, explaining 53.6% (adjusted $R^2 = 0.536$) of the variability of

SDG 4—Quality Education. For each point that the welfare regime increases, the achievement of SDG 4 increases by 5.807, and for each increase in personal autonomy and individual rights, the achievement of the SDG increases by 3.357. Again, contrary to what was expected from theory, the status of democracy variable has a high, negative, and significant relationship, decreasing the value of the SDG by 6.466 for each point increase in the independent variable. For SDG 5, the independent variables personal autonomy and individual rights, and welfare regime are significant and highly and positively affect the achievement of Gender Equality. The increase of one point in the well-being regime increases the value of achieving SDG 5 by 3.294, while the same increase in personal autonomy increases the achievement of the goals by 1.649. The estimated model explains 32.4% of the variation in the achievement of SDG 5 (adjusted $R^2 = 0.324$).

Table 3 shows that subjective well-being is significant for three SDGs on the Planet axis, fulfilling hypothesis H_5. Hypotheses H_3 and H_4 are partially met since the variables are significant and positive in two models. Government effectiveness has an influence opposite to what was expected in two of the three SDGs, so hypothesis H_1 is rejected in this axis. For SDG 6, all independent variables are significant except government effectiveness. It is observed that the variables associated with well-being have a highly positive and significant relationship, increasing the level of achievement by 3.577 and 3.547 for each point that the independent variables increase. Personal autonomy has a low, positive, and significant influence ($\beta_3 = 0.773$), while the status of democracy has a high, negative, and significant relationship with achieving SDG 6—Clean Water and Sanitation ($\beta_2 = -2.056$). The model explains 67.2% of the variability (adjusted $R^2 = 0.672$) in the achievement of SDG 6, being the highest level of explanation achieved in the Planet axis. Contrary to what was expected, the achievement of SDG 12—Responsible Consumption and Production, is highly, negatively, and statistically significantly affected by the effectiveness of government ($\beta_1 = -3.482$), the welfare regime ($\beta_4 = -4.103$), and subjective well-being ($\beta_5 = -2.885$). The estimated model explains 65.6% of the variation in SDG 12 (adjusted $R^2 = 0.656$). SDG 13—Climate Action is only positively and significantly influenced by personal autonomy and individual rights, so by increasing the independent variable by one point, the achievement of SDG 13 increases by 2.180. The variables government effectiveness and subjective well-being have a negative and significant influence, contrary to what was expected ($\beta_1 = -10.811$; $\beta_5 = -5.745$). This model explains 48.6% of the variability (adjusted $R^2 = 0.486$) of SDG 13—Climate Action.

In the Prosperity axis, the results show that contrary to what was expected, in all the models analyzed, the status of democracy negatively influences the achievement of each SDG, which is why hypothesis H_2 is not met in this axis. Hypotheses H_3, H_4, and H_5 are partially met since in two of the three models, the variables are significant and with the expected sign. The estimation results seen in Table 4 allow us to affirm that for SDG 7 – Affordable and Clean Energy, the variables related to well-being are significant and positively influence its achievement. For every point at which the well-being regime increases, the achievement of SDG 7 increases by 7.763, while for an increase in subjective well-being, SDG 7 increases by 6.045. On the other hand, the status of democracy has a negative and significant influence, decreasing the level of achievement of the objective by 4.434. This model has an adjusted R^2 of 0.580, explaining 58% of the variation. The achievement of SDG 8—Decent Work and Economic Growth is only significantly and positively influenced by subjective well-being, so for every point at which this increases, the SDG increases by 3.311. The model explains 57.9% of the variation in the SDG (adjusted $R^2 = 0.579$). The model for SDG 9—Industry, Innovation and Infrastructure, explains 77% of the variation in achieving the goals, with the highest adjusted R^2 of the Prosperity axis (adjusted $R^2 = 0.77$). Both the effectiveness of the government and the welfare regime have a high, significant, and positive influence. For each point at which government effectiveness increases, the achievement of SDG 9 increases by 15.439, and for each increase in the welfare regime, the dependent variable increases by 5.887. On the other hand, the status of democracy has a high, negative, and significant relationship ($\beta_2 = -3.052$). For SDG 11—Sustainable Cities and Communities, the model explains 62.1% of the variation (adjusted $R^2 = 0.621$). It is observed that for every point at which subjective well-being increases, the achievement of SDG 11 increases by 6.036, and for every point at which the well-being regime increases, it increases by 3.687. The status of democracy has a negative and significant influence, contrary to what was expected ($\beta_2 = -3.516$).

In the Peace axis, Table 5 shows that for SDG 16—Peace, Justice and Strong Institutions, both the effectiveness of the government and the welfare regime have a high, positive, and significant influence. An increase of one point in government effectiveness increases the value of achieving SDG 16 by 6.094, and an increase in the welfare regime contributes by 3.979. The model manages to explain 66.3% of the variability in the achievement of SDG 16 (adjusted $R^2 = 0.663$). Finally, on the Partnerships axis, the achievement of SDG 17—Partnerships for the Goals, is only highly, positively, and significantly affected by the welfare regime. An increase of one point in the welfare regime increases the achievement of SDG 17 by 4.036. The model presents an adjusted R^2 of 0.280, explaining 28% of the variation in the dependent variable.

5 Discussion

This study contributes to the current debate on the non-economic determinants of the achievement of the 2030 Agenda by analyzing each of the five axes that comprise it and five variables that can contribute to its achievement, which are government effectiveness, the status of democracy, personal autonomy and individual rights, welfare regime, and subjective well-being, deepening and giving continuity to the hypotheses proposed by [22]. The results indicate that the variables related to well-being are the most relevant factors for achieving SDGs in the five axes of the 2030 Agenda, which aligns with findings made in previous studies [5, 22, 39]. The welfare regime was significant and positive in 10 of the 14 models analyzed (1, 3, 4, 5, 6, 7, 9, 11, 16, and 17), so hypothesis H_4 is partially fulfilled, being particularly important in the Person, Peace, and Partnership axes. Subjective well-being, for its part, was highly relevant in the Person and Planet axes and was significant and positive in 6 of the 14 models (1, 3, 6, 7, 8, and 11), partially fulfilling H_5.

Turning to the variables related to the political system, personal autonomy and individual rights were found to have a positive and significant influence on four SDGs of the Person and Planet axes (4, 5, 6, 13), thereby partially fulfilling hypothesis H_3. This finding aligns with previous research, which reported a positive effect of democratic institutions on SDGs 4, 5, and 6 [15]. Similarly, Çağlar and Gürler [19] assert that human freedoms are positively and significantly linked to achieving the SDGs. When individuals have more freedom and rights, they are better equipped to act in favor of environmental causes; therefore, promoting citizen participation and involvement in environmental protection and adopting responsible consumer practices is crucial for the success of the 2030 Agenda. Contrary to expectations from the literature [3, 20, 21, 23], the factors related to the quality of government and democracy had a lower significance and, in many cases, a negative influence. Government effectiveness was only positively and significantly related to 4 SDGs of the People, Prosperity, and Peace axes (2, 3, 16, and 17) and was negative for two SDGs of the Planet axis (12 and 13). Therefore, hypothesis H_1 is rejected. These findings can be explained because even in contexts where the government is highly effective, economic or infrastructure policies that are not necessarily aligned with environmental sustainability are sometimes prioritized. To counteract this, it is crucial to integrate sustainability criteria in public policies and government development strategies at the national, subnational, and local levels. This can help ensure that even in democratic systems, the focus remains on long-term objectives that require time and whose results may not be seen within one term.

The status of democracy, although significant in 6 of the 14 models, was found to have a negative relationship with achieving the SDGs, rejecting hypothesis H_2. This unexpected result challenges the prevailing assumption that democracy always benefits sustainable development. It underscores the need for further investigation into how certain democratic aspects could hinder progress on some objectives. This finding, while unexpected, presents an opportunity for deeper exploration and understanding. It suggests that while democracy is crucial for inclusive and fair development, factors such as political instability, short-term electoral cycles, or conflicts of interest can hinder the implementation of sustainable and consistent policies. Particularly in those SDGs that require profound transformations that are difficult to achieve quickly, it can lead to prioritizing policies and programs that generate immediate and visible results to ensure re-election instead of focusing on long-term objectives. The results of this research show the above since democracy negatively influences the goals of SDG 3 – Good Health and Well-being, SDG 4—Quality Education, SDG 6—Clean Water and Sanitation, SDG 7—Affordable and Clean Energy, SDG 9—Industry, Innovation and Infrastructure, and SDG 11—Sustainable Cities and Communities. On the other hand, in a democratic system, mechanisms are required that minimize the influence of particular interests since inequality in the ability of different groups to influence political decisions can cause those with more resources to oppose reforms necessary to solve problems of inequality.

6 Conclusions

From academic research and political discourse various factors have been identified that can contribute to achieving the 2030 Agenda; this article seeks to contribute to this line of research by identifying the factors related to governance, democracy, and well-being that influence the achievement of the 17 SDGs, for which cross-sectional statistical analyses are carried out considering as dependent variables, the level of achievement of each SDG. The estimation of the 17 models was carried out for a dataset of 120 countries, considering information from 2023 for the dependent variables and from previous years (2019 and 2020) for the independent variables to estimate each country's previous state. The results of the statistical models indicate the degree to which each factor contributes to the variation

in achieving each SDG, providing an accurate measure (R^2 adjustment) of the impact of these factors on each goal. This provides a quantitative basis for prioritizing policies that most impact progress toward specific SDGs.

The use of cross-sectional data could be interpreted as a limitation of the study; however, the data used are consistent with the research objective, which aims to identify causality between explanatory variables measured at different points in time. Future research could employ a panel methodology to investigate changes over time. Another limitation could be the validity of using indicators that encompass a range of complex and multidimensional concepts such as governance, democracy, and well-being; However, to ensure that the measures used are valid, we use public and recognized databases such as The Quality of Government Basic Dataset [26] and the Sustainable Development Report 2023 [27]. Furthermore, independent variables may not cover all dimensions that influence the SDGs. These limitations do not invalidate the study's results, but rather indicate areas where future research could be expanded or improved to obtain more robust and generalizable conclusions.

Results indicate that welfare regime, subjective well-being, and personal autonomy and individual rights are important for achieving the SDGs in the five axes of the 2030 Agenda, and that those linked to the effectiveness of government and the status of democracy have inconclusive effects on this ambitious global agenda. Therefore, looking beyond the economic differences between countries is crucial since non-economic factors may be more relevant. In line with the central purpose of the 2030 Agenda, *leave no one behind*; it is logical to think that well-being is one of the variables that can contribute the most to the achievement of the agenda. Robust welfare systems can have broad and positive effects on social development, also providing a favorable context for the development of infrastructure and the provision of essential services, facilitating progress on the People and Prosperity SDGs. Likewise, satisfaction with life and the perception of well-being can be motivating factors that contribute to economic development and improving living conditions in communities. Therefore, it is concluded that countries that manage to improve the well-being of their inhabitants or have a higher level of well-being in previous years have a greater probability of achieving the goals of those who are more vulnerable or disadvantaged. Another factor of significant relevance to the People and Planet axes is personal autonomy and individual rights. Autonomy, respect, and promotion of individual rights are essential to advancing environmental and gender equality causes, so implementing policies that strengthen individual rights and freedom of decision is crucial, especially for women and other vulnerable groups.

Results in terms of government effectiveness and democracy are less conclusive, showing that in both cases, it is essential that in the access and the exercise of power, there are mechanisms that safeguard the social protection of vulnerable groups and the environment to prevent the interests of more influential groups capture the political agenda in their favor. This finding suggests that future research could further analyze how certain aspects of democracy or governance can hinder progress on some SDGs. This article seeks to promote academic and political discussion on the factors that drive achieving the 2030 Agenda to propose adjustments in public policies to get us closer to achieving the goals in the next six years. Along these lines, the study finds that strengthening welfare regimes and aligning governance with sustainability are crucial strategies to advance the 2030 Agenda. The results also underscore the need to reassess the role of democracy in achieving the SDGs and to implement policies that promote democracy, thereby ensuring the stability, efficiency, and sustainability of development.

Author contributions M.M-C: Role: Principal Investigator. Dr. Morales-Casetti led the overall research project. She worked on the literature review, the formulation of hypotheses, and the definition of the analysis methodology. She also worked in manuscript preparation, which was complemented and improved with contributions from the other authors. She translated the text and sent the manuscript to the journal. M.B-C.: Role: Co-Investigator, Research Design and Methodology Expert. Dr. Bustos-Gutiérrez was responsible for refining the research design and methodology. He provided expertise in selecting appropriate research methods and tools and contributed to drafting the methodology. He was involved in drafting and revising various sections of the manuscript and ensuring the consistency and clarity of the document. A.A-M.: Role: Literature Review and Theoretical Framework Developer. Eng. Araya-Muñoz conducted an extensive literature review and helped develop the theoretical framework for the study. She contributed significantly to writing the manuscript's background and literature review sections. V.Z-V.: Role: Data Collection and Statistical Analysis. Eng. Zúñiga-Valdebenito led the statistical analysis using IBM SPSS Statistics 23. He was responsible for interpreting the data and contributing to the manuscript's results section. All authors reviewed the manuscript.

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Declarations

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