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**Carmen Nora Lazar
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**HCC St. Moritz
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IZABELA BEDNARSKA WNUK¹

THE ASSESSMENT OF WORK LIFE AREAS AND THE INTENTION TO LEAVE IN A HYBRID WORK ORGANIZATION USING POLAND AS AN EXAMPLE

Abstract

As a result of the changes brought about by COVID-19, not only the work model changed, but also various work characteristics. In the initial phase, most employees were forced to work exclusively from home. This solution quickly gained popularity over time and many organizations, incorporated it into their so-called hybrid work model. There were also new demands that affected the perception of various areas of work life. Their evaluation can determine employees' intentions to leave the organization. In this situation, it becomes important to know the level and structure of work life areas among employees doing hybrid work and to verify them in the context of employees' intention to leave the organization. The characteristics of the areas of work life were studied among 248 employees in 2023 in Poland using the Areas of Worklife Survey tool by Ch. Maslach and M. Leiter.

The study presented here is an attempt to fill the research gap in the subjective assessment of the environment in a hybrid work organization and employees' intention to leave.

Keywords: Areas of working life, intention to leave, hybrid work

JEL Codes: M12, M54

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Introduction

As a result of the changes brought about by COVID-19, not only the work model has changed, but also various work characteristics. In the initial phase, most employees were forced to work exclusively from home. This solution quickly gained popularity over time and many organizations, incorporated it into their so-called hybrid work model. It is likely that the work model we knew before the pandemic will no longer be the dominant way of performing tasks. The hybrid work model seems to be the most appropriate solution in line with modern employee preferences (Krajcik et. al. 2023, Hopkins, Bardoel, 2023, O'Rourke, 2021). In Poland in 2023, about 20% of Poles worked in this formula. The research conducted revealed that it is the hybrid model of work, as opposed to work done exclusively remotely, that affects employee well-being. Polish managers performing hybrid work are characterized by a high level of tension, the need to constantly adapt to changes taking place or a large number of incentives, associated with a high pace of work and the use of many different technological solutions (Mikolajczyk, 2023, p.19). Nowadays, the concept of employee well-being in the context of the hybrid work model is increasingly in the focus of research interest (Grobely 2023, Kinowska 2021, Franzen-Waschke 2021). Various implications of this work are also being sought. However, the new demands of the hybrid work organization may determine the relationship that occurs between the organization and the individual, and as a result affect the perception of various areas of work life. This level of perception can also have a bearing on an individual's job fit and, if not, on the decision to leave the organization. It should also

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be remembered, however, that the organization and its environment do not always keep up with changes in the environment and the current needs of employees. In this situation, it becomes important and crucial to know the level and structure of work life areas among employees doing hybrid work and their verification in the context of employees' intention to leave the organization.

The research presented in the article is an attempt to fill the research gap in the subjective assessment of the hybrid work environment and employees' intention to leave. They fill the empirical gap and provide missing information on the perception of the work environment in the post-hybrid reality.

Theoretical Considerations

Hybrid Work in Poland

Hybrid work was first defined by Halford (2005). It means the division of working time and the location of its performance between work at home and work in a traditional office (O'Rourke, 2021, p. 560). It is also defined as a workspace in many places, where people work more flexibly, dividing their time between different places, such as home and office (Petani, Mengis, 2021, Cook et. al 2020). According to Halford (2005), hybrid work changes the nature of work, organization and management in the home, organizational and cyberspace.

Until the COVID-19 pandemic, flexible forms of employment were an alternative to working on a so-called full-time job. It was an instrument contributing to professional activation, primarily of young people without much professional experience.

Before the COVID-19 pandemic, in Poland, the share of employees declaring remote work in various capacities remained at a level between 7.4% and 8.3%. In 2020, during the pandemic, the number of employees who usually worked from home increased significantly – the percentage was 6.6%. Interestingly, the percentage of people working remotely sometimes almost did not change – 6.8%. Therefore, in 2020, a total of 13.4% of Poles worked from home to some extent. As soon as the opportunity to return to offices appeared in 2021, many companies and employees in Poland took advantage of it. The popularity of remote work had already fallen then. The percentage of people who usually worked remotely dropped significantly to 4.8%. In turn, the percentage of employees who sometimes spent time in a home office remained almost the same again, dropping slightly to 6.6%. In 2022, the percentage of people declaring that they usually worked from home dropped to 2.9% – the change was significant, but it was still a higher level than before the pandemic. In turn, only 5.8% worked from home sometimes. Thus, the total percentage of people working completely or partially from home has returned to the pre-pandemic level (Kielczewska, 2023, p. 9). This employment structure in Poland was probably influenced by the lack of possibility to work from home for a relatively large number of employees and unclear legal regulations in this area. As a legal solution, hybrid work in Poland only appeared in the Labor Code on April 7, 2023, recorded as one of the forms of remote work. Previously, there was no such concept in labor law. It was the Covid-19 pandemic that became the impetus for changes in this area. For almost 3 years - from March 2020 to April 2023 - the only regulations that sanctioned remote work, including hybrid work, were the provisions of the Act on special solutions related to the prevention, counteracting and combating of COVID-19. Changes in labor law were necessary, which did not occur until 2023 (Nowak 2023). Article 67 of the Labor Code defines remote work as work "... performed in whole or in part at a place indicated by the employee and each time agreed with the employer, including at the employee's residential address, in particular using means of direct distance communication (remote work)" (Labor Code 2023, p. 42). The key word in this definition is "partially" meaning performing work both in the organization and from any location, and thus indicating hybrid work. The changes made to the Labor Code have therefore enabled an even larger group of employees to implement the hybrid work formula. The rights and obligations of both the

employee and the employer have also been clearly specified. This is particularly important in the context of performing such work and may be an important element in the process of managing such employees.

Currently, according to research conducted in February 2023 by Skanska and Business Link on a representative sample of 900 Poles aged 18-65 performing office work, every third employee is a supporter of working exclusively at the organization's headquarters, 48% of respondents indicate a hybrid model as optimal, and 17% want to work remotely (<https://praca.gazetaprawna.pl/artykuly/8698537,praca-zdalna-dybrydowy-model-pracy.html>).

However, the growing popularity of hybrid work has not only positive aspects. It has also turned out that they generate numerous negative effects, including health (Palumbo et. al. 2021). We can also distinguish the so-called dark side of hybrid work, the effects of which affect both employees and organizations. Understanding the needs of employees regarding time and place of work is crucial, because only the right workplaces designed for employees and showing organizational resilience can survive and maintain competitiveness in the future and productivity, efficiency and satisfaction at a high level (Asgari et. al. 2022).

Individual-Organization Fit - The Importance of Professional Life Areas

It is obvious that people are more likely to choose specific positions and organizations if they are consistent with their personality, needs, and values, and at the same time achieve better efficiency and effectiveness in carrying out tasks (Cable, DeRue, 2002). In a broader context, however, fit from an organizational perspective is interpreted as the compatibility between the individual and the work environment and their similarity of characteristics (Kristof-Brown, Zimmerman, Johnson, 2005, p. 281). Within organizational fit, the following are distinguished: individual-profession fit, individual-job fit, individual-organization fit, individual-employee group fit, person-person fit, person-role fit, and individual-supervisor fit (Kristof-Brown, Zimmerman, Johnson, 2005, pp. 283–287). Of particular importance among these forms of fit is individual-organization fit. It takes into account the satisfaction of employee needs, referring to the degree to which work meets the needs and expectations of an individual through various organizational systems (remuneration, motivation, training, etc.) (Cable, DeRue, 2002). Leiter, in cooperation with Maslach, draws attention to a slightly different way of examining the fit between an individual and an organization. Their theory takes into account the most important areas of a person's work, understood as resources, the loss of which is a source of stress. The aforementioned researchers refer to the person–environment fit model. According to this concept, if the conditions created by the organization and the requirements of work do not meet the expectations and needs of employees, deficits appear in the areas listed below, resulting in dissatisfaction and negative assessment of them, which can lead to occupational stress. There are six spheres in which a mismatch between work and human expectations is possible. According to Leiter and Maslach (2006), mismatch occurs most often in these spheres. These include:

1. Workload – occurs when an employee is unable to meet all the requirements placed on them in a given time and at a specified level in terms of quality of performance.
2. Sense of control, or autonomy – allows an employee to decide on the method of performing and the scope of tasks performed – especially excessive control, limiting the employee's influence on the way tasks are performed.
3. Rewards – concerns the assessment of the degree of satisfaction with the rewards a person receives for their work: both material rewards, promotion opportunities, and social rewards, such as recognition and respect from co-workers, superiors and clients.

4. Sense of justice – refers to the employee's sense that they are treated fairly or unfairly and concerns such aspects of work as clear rules, distribution of goods and promotion opportunities.

5. Social support at work (work support) – refers to social relations in the workplace and includes instrumental and emotional manifestations of support from co-workers or superiors, which is why it helps in coping with various consequences of work.

6. Congruence of values valued by employees and the organization (person–organization congruence) – this dimension describes the convergence between the employee's values and the culture of the organization in which they work. It also concerns the employee's attitude towards the goals set for them by the organization – the more the employee identifies with the values of the organization, the less stress they experience (Chudzicka-Czupala et. al. 2019, p. 576).

Kmiotek and Piecuch (2012, p. 71) also draw attention to the need to match the characteristics of the professional environment to the personality of a given employee.

Areas of professional work also affect professional burnout, and it affects intentions to leave the organization (Gellock et. al. 2023). The Areas of Worklife Model and its constructs have been found to be associated with both positive and negative employee outcomes such as work engagement, life satisfaction, workplace stress, job burnout, and intentions to leave a profession (Bakker, Albrecht, & Leiter, 2011). Therefore, it is so important to understand the environment of hybrid work organization, which, when properly designed, determines the fit of an individual to the organization and may influence their intentions to leave.

Referring to the presented theoretical and empirical premises, the following hypothesis was formulated: H1 There is a relationship between the assessment of professional life areas and the employee's intention to leave the organization.

In addition, the following answers were sought: How do employees performing hybrid work assess their work environment?

Materials and Methods

Data Collection and Sample

The study involved 248 employees of organizations performing hybrid work, of which 51% were women and 49% were men. A clear downward trend can be seen in the individual age groups. The respondents from the age group up to 26-35 years dominated (30.2%). A similar number was characterized by respondents from the age group 36-45 years - 28.2%. Next were respondents from the age group 46-55 years (22.2%) and from the age group up to 25 years (16.5%). The fewest respondents were from the group over 56 years, because only 2.8%. Most employees (25.1%) had work experience in the range of 3 to 5 years. A comparable share are respondents with work experience over 20 years (15.90%) and work experience from 16 to 20 years (15.2%). The smallest group were respondents with up to 6 months of experience (4.5%), from 7-12 months (6.5%) and with 1-2 years of experience (9.5%). The CAWI (Computer Assisted Web Interview) technique was used in the study. This is due to the fact that the on-line questionnaire survey (CAWI) is becoming more and more popular due to faster access to the respondent, ensuring anonymity and faster data collection.

The research was conducted in 2023 among employees working in a hybrid work organization model.

The study was voluntary and anonymous. The selection of the sample for the study was purposeful, convenience. Respondents could withdraw at any time. The study involved respondents who gave their consent. All data was fully anonymized at the time of collection.

The empirical material obtained was then subjected to statistical analysis using IBM SPSS Statistics 28.0.

Measures

Areas of Professional Life

The areas of professional life were measured using the Areas of Professional Life Questionnaire by Christina Maslach and Michael Leiter (2006), in the Polish adaptation by Terelak and Izwantowska (2009). The questionnaire is designed for the subjective assessment of the work environment by employees. It allows for the assessment of the employee's functioning in the work environment and the discrepancies between the requirements of the organization and the needs, aspirations and capabilities of employees (Terelak, Izwanowska, 2009, p.226). This tool consists of 29 statements, which are grouped into six dimensions: Workload (6 items), Sense of Control (3 items), Rewards (4 items), Work support (5 items), Sense of Justice (6 items) and Values (5 items). The respondents were asked to rate their level of agreement with each statement using a Likert scale: 1 – strongly disagree, 2 – rather disagree, 3 – hard to say, 4 – rather agree, 5 – strongly agree.

Reliability was obtained for the entire Professional life areas scale $\alpha = 0.886$ and for the individual dimensions: Workload ($\alpha = 0.647$), Sense of Control ($\alpha = 0.718$), Rewards ($\alpha = 0.730$), Work support ($\alpha = 0.856$), Sense of Justice ($\alpha = 0.661$) and Values ($\alpha = 0.693$).

Intention to Leave

“Intention to leave” was measured using an instrument (Lance et. al., 1989) consisting of three questions: “I often think about leaving my job,” “I intend to leave the organization,” and “I intend to make a real effort to find another job in the next few months.” Participants responded on a 5-point Likert scale ranging from “Strongly disagree” to “Strongly agree.” The reliability of this measure was $\alpha = .879$.

Research Results

The surveyed respondents rated the areas of their professional life at an average level. This means that they are not completely satisfied with their various components. In the factor structure of the areas of professional life, as shown by the analysis of the empirical material, in the surveyed group of employees, the highest level was noted for the work support dimension ($M=3.502$, $SD=0.951$). Respondents feel the workload to the least extent ($M=2.928$, $SD=0.809$). They also consider the intention to leave the organization to a small extent ($M=2.434$, $SD=1.360$). Table 1 contains the results of descriptive statistics, variables used in the study.

Table 1. Descriptive Statistics of Variables Used in the Study (N=248)

Scale	M	SD	Me	Skewness	Kurtosis	Cronbach's
Life Areas	3,257	0,640	3,360	-0,810	0,673	0,886
Workload	2,928	0,809	3,000	0,064	-0,554	0,647
Control	3,450	1,118	3,667	-0,538	-0,664	0,718
Rewards	3,303	0,951	3,375	-0,456	-0,336	0,730
Work support	3,502	0,984	3,800	-0,889	-0,073	0,856
Sense of Justice	3,024	0,722	3,167	-0,326	0,446	0,661
Values	3,335	0,812	3,400	-0,330	-0,020	0,693
Intention to leave	2,434	1,360	2,000	0,503	-1,104	0,879

The values of skewness and kurtosis are in the range from -2 to 2, which is characteristic of data distributions close to the normal distribution.

Source: Author's own study.

The obtained results indicate the existence of a statistically significant correlation between the examined dimensions of the areas of professional life. The strongest relationship ($r=0.556$, $p<0.001$) occurs between values and work support. The weakest correlations are between workload and the sense of control ($r=0.223$, $p<0.001$). (Table 2). On the other hand, the lack of consistency of the values valued by the employee is the element that most determines, among all the variables of the areas of professional life, their intention to leave the organization ($r=-0.301$, $p<0.001$).

Table 2. Pearson Correlation Coefficient Values for the Components of Professional Life Areas and Intention to Leave the Organization (N=248)

Variables	Workload	Control	Rewards	Work support	Sense of justice	Values
Control	0,223*	--				
Rewards	0,372*	0,421*	--			
Work support	0,273*	0,447*	0,501*	--		
Sense of justice	0,393*	0,182**	0,517*	0,401*	--	
Values	0,296*	0,494*	0,469*	0,556*	0,518*	--
Intention to leave	-0,199**	-0,253*	-0,258*	-0,143**	-0,217*	-0,301*

** Significant correlation at the level of $p<0.05$

* Significant correlation at the level of $p<0.001$

Source: Author's own study.

In order to verify the hypothesis concerning the type of relationship between the assessment of professional life areas (independent variable) and the employee’s intention to leave the organization (dependent variable), linear regression analysis was used (Table 3).

Table 3. Regression Analysis Results – Professional Life Areas and Intention to Leave (n=248)

Variable	Intention to leave				
Model	B	SE	B	t	p
Constant	4,655	0,426		10,923	<0,001
Life Areas	-0,682	0,128	-0,321	-5,311	<0,001
	$R^2 = 0,103$; $F(1, 246)=28,207$; $p<0,001$				
Source: Author’s own study.					

The model turned out to be significant and well-fitted to the data $F(1, 246)=28.207$; $p<0.001$. Statistical significance of the relationship between the assessment of life areas and the intention to leave was obtained ($p<0.05$). The impact of the assessment of life areas on the explained variable was negative. An increase in the assessment of life areas causes a decrease in the respondents' intention to leave the organization.

Interestingly, the student's t-test for independent samples did not show any significant differences in the assessment of life areas in the organization, between men ($M=3.256$; $SD=0.630$) and women ($M=3.259$; $SD=0.651$) $t(246)=-0.029$; $p=0.997$.

Conclusions and Implications

The obtained research results indicate that employees in a hybrid work organization have an average assessment of their professional environment. Organizations that offer work in a hybrid model should therefore pay more attention to the need to match the characteristics of the professional environment to employees. The lack of such compatibility causes the individual to feel dissatisfied, their effectiveness decreases and the tendency to leave the organization increases (Kmiotek, Piecuch 2012, p. 71).

The research results can be used to formulate practical recommendations regarding taking actions consisting in optimizing conditions in a hybrid work environment, which are to serve to counteract the intention to leave the organization. To this end, steps should be taken to increase employee satisfaction, of course to the extent possible for the organization. Therefore, organizations enabling work in a hybrid formula should consider how to increase the possibilities of making independent decisions in a given job position and how to motivate and reward the employee for their work.

The highest assessment of the community, emotional support, should be considered interesting. This is particularly important because during the pandemic, those who worked exclusively from home were characterized by emotional exhaustion. This is indicated by research conducted by Stanford University in 2020, which showed that people working completely remotely reported a greater feeling of isolation than those who work in the office or in a hybrid model. The lack of daily interactions, such as shared coffee breaks or informal conversations, can lead to a sense of alienation, which in turn affects mental health (Bloom 2020). The perceived support of hybrid employees is even greater if it is consistent with their values and organizational values. For organizations, this means the need to take care of employees in terms of shaping the essence, content and offered conditions of work. These actions can lead to a stronger employee identification with the organization and full dedication to work.

People who feel supported, appreciated and motivated are more likely to do their job and strive for more in their career. This can be a positive boost for employees' mental health and self-confidence, especially when they feel this way when their contribution to the team is recognized (Hart 2023). Managers, on the other hand, wanting to retain employees in the organization providing flexible work and avoid them leaving the organization, should primarily pay more attention to various programs that would shape and increase the emphasis on health promotion in the workplace. This is quite important, especially since an engaged employee is of great value to the organization (Harter et. al.2002). In addition, actions can also be taken to improve working conditions or increase independence in areas where possible, for example by structuring the tasks performed or enabling employees to redefine the boundaries of their own work (Wojtczuk-Turek, 2016, p. 98), creating a better fit between the employee and the workplace (Bakker, Tims, Derks, 2012), including a hybrid workplace. It should also be remembered that matching an individual to an organization is currently a challenge for managers in the context of shaping an optimal work environment. However, fearing the loss of valuable human capital, organizations should therefore not only examine the satisfaction and commitment of their employees, but also identify and implement real methods of helping them to adjust. These may include, for example, drawing attention to the proper fit between an employee and the organization at the selection stage, co-participating in career planning, enabling employees to create their own work environment, and implementing work-life programs (Tanova, Holtom, 2008, p. 1566). The above actions can make the employee fit the organization and thus more satisfied with the work performed. They will also not be interested in changing employment. From the perspective of the organization, the diagnosis of areas of professional life allows for a fuller use of the individual potential. Therefore, it is important for managers to constantly determine the preferences of their employees regarding the boundaries of their tasks and goals through open and continuous communication. Such actions help to increase the level of fit and stimulate positive feelings towards the work performed (Ng, Lucianetti, 2018, p. 1266), especially in a hybrid work environment.

It is surprising that gender does not differentiate assessments of areas of professional life. The lack of such clear differences may be related to the disappearance of differences in the behavior of women and men over the years, as reported by researchers (Wojciszke, 2009). Moreover, it seems that the current popularization of remote and hybrid work has developed a so-called new normal, in which certain behaviors in the organization assume a certain gender unification.

However, the study has several limitations. First, the study only obtained responses from employees performing only hybrid work. It is recommended to extend the study to learn about the opinions of employees performing work in a traditional way and remote work and to compare the level of assessment of areas of professional life among these three groups. The study should also be extended to other variables moderating the form of work and the work environment and the intention to leave the organization, for example, employee efficiency, results achieved, job satisfaction, and to examine which elements of health programs promote employee retention in the organization. It would also be important to know whether and which psychological or physical factors promote a better assessment of the hybrid work environment.

There are also methodological limitations. The study was limited only to respondents performing flexible work, including hybrid work, without taking into account the type of organization, type of work (manual vs. mental) or employee category (specialist, manager, director). Moreover, since it is currently expected that the flexible work model will be a popular way of working in many organizations after the COVID-19 era, and in the future, for example, hybrid work organization will even become the dominant work model (Moglia et. al. 2021), further and in-depth research in this area is called for, taking into account the employee's dispositions, well-being and social capital.

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IRINA ANA DROBOT¹

LOVE AS AN EXOTIC REALM FOR ROMANIAN SYMBOLIST POETS ION MINULESCU AND CLAUDIA MILLIAN

Abstract

The purpose of the present paper is to analyse the way in which Romanian poets Ion Minulescu and Claudia Millian contribute to the development of Symbolism through creatively adopting the feature of exoticism in their works. The poem *To the One Who Goes Away* by Ion Minulescu shows the dreams and illusions about a romantic relationship as belonging to a far-away realm, situated between fantasy and reality. The poem *The Symphony of Silence* by Claudia Millian adopts the same technique. A love relationship that has ended, once the poetic persona mentions she is alone, is presented as part of an exotic realm, where the loved person is a prince. This setting is a combination of exotic worlds and fairy-tales. Romantic relationships include, after all, a lot of daydreaming, and our perception of external reality is clearly influenced by our mood, especially when we are in love. Symbolism came as a reaction to the previous Realist movement, which had focused too much on external reality, and, more than that, or much too ordinary aspects of daily life. Symbolists focused on inner reality, and, especially, on dreams and on the unconscious in psychoanalysis.

Keywords: Relationships, fantasy, daydreaming

JEL Codes: Z10, Z11, Z13

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Introduction

The present paper aims at underlining the particular features of the Romanian Symbolist movement in poetry by selecting two specific cases of poems by two authors, *To the One Who Goes Away* by Ion Minulescu and *The Symphony of Silence* Claudia Millian, as well as the way in which their poems can still be relevant today with respect to the psychology of relationships, together with the readers' better understanding of the experience of love relationships. These two poems can help readers gain self-insight regarding their feeling while they are involved in romantic relationships, as well as insight into what the other person can think and feel.

The experience of being in love can be considered as overwhelming sometimes. At this point we notice how it includes contradictory feelings. During such moments, we are trying to clarify the way we are feeling, yet this proves to be difficult. The two Symbolist poems analysed in this paper will present these contradictory emotions, leading us to believe that everyone can experience this and also that this is normal. The Symbolist movement only provides a perspective on our understanding of our feelings during romantic relationships. It is just the elements of the setting that are specific to Symbolism, yet the experience is not restricted to the respective time period. The Symbolist elements are just tools provided to the poets in order to express visually the way that the poetic personas are experiencing, psychologically, a difficult moment in their romantic relationship. These two poems offer a good example of the way in which we can express feelings that are hard to understand. The way the poetic

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personas are trying to clarify their emotional states is visible in their visual depiction, with the help of concrete elements and with the help of creating imaginary worlds.

Ion Minulescu (1881 - 1944) and Claudia Millian (1887 - 1961) were husband and wife, and they both wrote poems under the influence of the Romanian Symbolist movement. Ion Minulescu is credited with making the Romanian Symbolist movement mainstream (Baltatu, 2023).

There was resistance to adapting to movements at mainstream level in the Romanian society at the time when the Symbolist movement started in France and then spread to other countries in Europe, which caused the Romanian Symbolist movement to be practiced by authors about more than twenty years later compared to France and to other countries that followed the example set up by the French Symbolists. Symbolism, a movement in literature and the arts, “spread across Europe and North America during the last two decades of the nineteenth century” (Myers, 2007). The resistance appeared due to hesitation to introduce a foreign decadent influence which was associated with Symbolism. They wanted, at the time, to preserve an authentic, nationalist Romanian literature, which made the mainstream literary representatives to disapprove of adopting Symbolism at the time. Romanian Symbolism developed during the 1890s (Rosu, 2016) and the beginning of the twentieth century. In comparison, French Symbolism spans the time period 1840-1920.

The first representative of the Romanian Symbolist movement is Alexandru Macedonski (1854-1920), who is distinguished through his use of Romantic elements in his poems (Boldea, 2007; Stajila, 2018). He is known for including Romantic elements in his poems. This is in line with the fact that the French Symbolist movement is known to have “bridged the gap between Romanticism and Modernism” (Drake, 2024). Moreover, the Symbolist movement appeared, at an international level, as a reaction to Realism and Naturalism, when there was too much focus on external reality and its common, everyday life aspects, leading to the neglect of the inner reality. This called for a return to the Romantic movement, based on its focus on interior reality, imagination, emotions, and the common element with Symbolism (De Van 1995), exoticism, which meant either imaginary or far-away lands (Remak, 1978).

According to Drake (2024), the symbols that are used by these poets are meant, as a goal, “to represent each emotional experience” in a complex way, using a complex network of symbols. What is remarkable is that the symbols are, in fact, according to Drake (2024), “emblems of the actual world.” Through their inclusion in the “emotional world which dominates” (Drake, 2024) the work of the Symbolist poets, these symbols that refer to the real world are transformed. They become part of a fantasy or supernatural (Drake, 2024) world, since there is no “clear narrative or location” in these poems. Reality and fantasy, therefore, mix in the works of the Symbolist poets.

The symbol, according to Drake (2024), for these poets does not mean, however, making a reference to “a specific object or idea with a concrete meaning.” For these poets, the symbol referred to the way in which an image was interconnected with any other aspects and elements, and even to the way in which there is an interconnection among everything, at a cosmic level (Drake, 2024). Drake underlines the idea that the Symbolist poets, through their use of the symbol, do not seek to clarify anything. The entire experience, all the emotions and ideas expressed by the Symbolist poets are given by the Symbolists, through their use of symbols, additional overtones. For the Symbolist poems, as Drake (2024) states, “There is a correspondence between art and the senses, reached through synesthesia.”

How are these Symbolist features applied and given additional, personal twists, by poets Ion Minulescu and Claudia Millian, in the poems chosen for analysis in this paper, *To the One Who Goes Away* and *The Symphony of Silence*, respectively?

Materials and Methods

The poems *To the One Who Goes Away (Celei care pleacă)* by Ion Minulescu and *The Symphony of Silence (Simfonia tacerii)* by Claudia Millian were chosen to be analysed not only based on the common topic, that of a romantic relationship which has, apparently, ended for both man and woman, or, at least, is facing difficult moments. The two poems appear to form a dialogue with one another, once we place them together, side by side. The order in which the dialogue takes place does not matter, since each poem offers the perspective of each individual member of the couple.

The way in which connections can be established between these two poems seems to move further beyond the intertextual level, referring to the relation between two texts. The connection between the two poems can be experienced by the readers as a result of a more profound, emotional connection, that of a romantic relationship, between husband and wife. The two of them, both poets, can continue their discussions regarding various issues in their relationships by giving them an artistic shape. Therefore, the level of intertextuality (Alfaro, 1996) is not just meant to engage with another text, but with a genuine other perspective, reflecting the feelings of the other person in the couple. The correspondence between the two text is, therefore, not just at the level of ideas and topic. Readers can experience a strong connection with the two poems, once they put together the experience as a discussion between the members of a couple, and further on imagining the details. For readers, it is just as if they had been listening to the confession of each member of the couple, taken separately, or as if they had listened to their dialogue. The feeling of witnessing an authentic episode in a couple's life comes from our background knowledge belonging to us, knowledgeable readers, from the information that the two authors were husband and wife, as well as from the autobiographical writings of Claudia Millian. We also tend to fill in the details that we do not find mentioned anywhere in their lives, as well as to sympathize even more with their experience, once we have gone through the same relationship issues and episodes ourselves. We tend to project on the others what we ourselves feel, as well as our own life experiences.

Projection was defined as a defense mechanism in psychoanalysis (Baumeister et al, 1998; Ornston, 1978), referring to the way in which we attribute feelings we cannot come to terms with to others. A literary text can help us see our own situation from a more detached perspective. We can attribute to the poetic personas our own feelings and in this way analyse the life situation without being involved in it ourselves. However, we are still going to judge the situation using our own feelings and beliefs without being aware of it, which is why an analysis of a text can say a lot about ourselves and our emotional life. This means of analysis, based on the way readers engage emotionally with the two poems, has been brought about by the reader-response approach (Mart, 2019), since this approach deals with the way in which readers relate to any text, function of their emotions and of their background knowledge either on the topic, or on the life of the authors and context in which the text was written. Readers can start interpreting these poems based on their own personal experience regarding the topic, as well as on their knowledge about the Symbolist movement and on the life of the two poets, based on the fact that they were husband and wife and had a romantic relationship.

Knowledgeable readers can rely on the information given by Claudia Millian (1973) herself, in the book of memoirs, titled, in my translation, *My Book of Memories (Cartea mea de aduceri aminte)*, where she describes her relationship with Ion Minulescu relating it to their mutual interest in poetry and to the appeal of his poetry to her:

Trăiam în gând cu poezia lui Ion Minulescu, de când eram în liceu. Îi prețuiam scrisul pentru ceea ce avea nou și neașteptat în inspirația lui. Îi prețuiam, e prea puțin spus: îi iubeam poezia. Era pentru mine o substanță de viață. O învățasem pe dinafară, o recitam în gând, când eram singură, când mergeam pe drum, o citeam tare la școală cu colegele mele. Mă făcuse foarte

pretențioasă pentru scrierile mele și căpătasem o voce bună și o îngăduință pentru tot ce se întâmplă în jurul meu. Îmi dădeam seama că viața nu este numai o trăire exterioară ci ea poartă un sâmbure de mister. (Millian, 1973)

I was living in my fantasy world with Ion Minulescu's poetry since I was in high school. I treasured his writing for what was new and unexpected in his inspiration. That I cherished him, it's too little to say: I loved his poetry. It had the substance of life for me. I had learned it by heart, and I was reciting it in my mind, when I was alone, when I was walking on the road, I was also reading it aloud at school with my classmates. It had made me very hard to please about my own writings, and I had acquired a good mood and indulgence in everything that was happening around me. I realized that life was not only an external experience, but that it also carried a seed of mystery. (*my translation*)

From this paragraph, we understand that Claudia Millian was familiar with the lyrical and interior universe of Ion Minulescu. It makes sense for readers to further assume that they shared the same emotional and fantasy universe during their romantic relationship, which leads, naturally, to readers to start assuming even more. They can assume that the poems the two of them wrote could have their source of inspiration in their discussions in everyday life, and in the feelings related to their relationship. Imagination is present in our romantic relationships (Adams, 2004), both with respect to our dreams and expectations about these relationships, as well as with respect to the time we are involved in them. When we are in love, it is a common belief that the world around us changes. Everything becomes more beautiful, since we are happy and we tend to project our emotional state on our surroundings. After all, the external world is all a result of our own, subjective perceptions, to a large extent. We relate to the outside world through our emotions, and it is impossible for us not to have emotional reactions to the environment. This is what environmental psychology claims (Mehrabian & Russell, 1974). More than that, we tend to attribute meaning to all the elements of the setting. All our surrounding reality has its attached meaning, and its personal associations. We are never free from interpreting the surrounding reality, in the case of these two Symbolist poems, nature, as well as the world of fiction, of fairy-tales, in relation to our own moods and previous experiences. We tie places to our personal life experiences, for instance we tend to give meaning to a place where we walked together with the loved person, function of whether the memory is pleasant or nostalgic, or, on the contrary, it is part of what we regret that has happened.

This is how the Symbolist movement relates to our natural psychological makeup and how the poems written during this time can still be so relevant to readers today.

Due to the complexity of the Symbolist movement implications, and aspects involved, this is why it is worth examining, based on a combination of perspectives which complete one another, namely: textual analysis, reader-response, psychoanalytical, psychological, as well as cultural studies and new historicist perspectives, in order to reach a deeper understanding of the two poems.

It does not matter with which poem we begin our reading and analysis. Either of them can start the dialogue, and together they complete our picture of readers of two persons involved in a couple relationship. Each poem brings to our attention the perspective of the individual involved. We realize how much their reality can be subjective, once we confront the two versions, and try to put the two sides of the experience together.

The poem *To the One Who Goes Away (Celei care pleacă)* by Ion Minulescu is presented in what follows based on the translation from Romanian into English by Cocoș (2023).

The first stanza of this poem provides an introduction to the situation, which is, right from the start, a conflictual one. The poetic persona does not agree with the perspective of the lady with whom he was or still is involved in a romantic relationship:

You think our love was real not for show...
I think it was pure madness, a short glee...
But what it was,
Or what we hoped to be
It's likely that we'll never ever know... (Minulescu, in Cocoş, 2023)

The first two lines start with the perspective of the lady, and then continue with the perspective of the man. While the lady is mentioned to believe that their love was “real,” and readers here infer that it was completely honest, the man believes it was “pure madness.” While madness and love are usually associated, and readers have here in mind that true love is a powerful experience, the poetic persona presents a further description, referring to their relationship as “a short glee.” Readers infer from here that while the lady believed that their love was lasting, he believes it was just a short affair. Readers can recall the phrase that someone can be madly in love, showing how powerful the experience of falling and being in love can be. The powerful experience can also serve as an explanation for the psychological conflict the poetic persona is experiencing. Likely, the poetic persona can imagine the entire dialogue, and the entire dialogue can just take place in his own mind. In this case, readers can have access to the inner perspectives of each of the members of the couple. What is more, since each of the members of the couple can be seen as holding their own interior monologue can contribute to the image the readers can make of this couple as having separated, whether for the time being, following a difference of opinion, or for good.

The last three lines of the first stanza can make readers think that, since the poetic persona mentions that they would “never ever know” what each of them expected and wanted to have from this relationship, the two of them are separated now and are not considering making up. An alternative explanation would be that their feelings are so powerful both when they are in love and happy about the relationship, and when they are starting a fight, which is why they can say words they do not actually mean. In support of this alternative scenario, we have the phrase “It’s likely” completing the statement “that we’ll never ever know.” However, the weight of “we’ll never ever know” is higher than that of “likely,” which expresses a weak possibility. The part “we’ll never ever know” shows a higher emotional investment, than “likely,” yet the two seem to contradict each other. The part with “we’ll never ever know” suggests a clear reality, a certainty, implying that there is nothing left to happen in the relationship, and that it is over, while the part with “likely” shows a possibility, which seems quite weak. Together, however, the two parts can suggest a question that the poetic persona is asking himself, which can be reformulated as: “Will we ever know?”

The second stanza introduces readers to the dream world of the relationship, a dream world which is located in the past, marking the difference with the present situation, the latter being full of problems and dilemmas:

It was a dream lived on a peaceful shore.
A dreary song brought from some distant lands
By migrant birds, as they had done before,
On other seas, on other golden sands.
A dreary song brought by the sailors young
From Boston,
Norfolk,
Places they adore,

A dreary song by all the fishers sung
When go to sea but they return no more.
Or maybe a refrain that filled the air,
By which a Northern vocalist, ignored,
On the white banks of a romantic fjord
Was begging for the love of ladies fair... (Minulescu, in Cocoş, 2023)

However, the impression, at first sight, that we are being introduced into a dream world, where the love relationship is ideal, is misleading. The love relationship is not preserved as part of a world with no care and where everything is going on fine. This world of apparent daydreams does not shelter the couple and the readers from the harsh reality, which is present in the first and in the third stanza. The first and third stanzas should, according to the readers' expectations, frame the first and third stanza, which are both strongly anchored into the real world.

The first line of the second stanza brings us, indeed, into a world of dreams, suggesting that the relationship was an ideal one. The first line forms, for readers, some expectations. These expectations are, however, afterwards questioned, since what follows is putting the reader into a dilemma. It is the word "dreary" the one which instills doubt in the readers about the otherwise idyllic place that could be the daydream of love. While all the other elements in this stanza suggest an ideal world and, implicitly, an ideal relationship, the word "dreary" has the role of setting in some doubt on the part of the readers about the entire daydreaming experience. The love experience is likened to a "song brought from some distant lands," as well as to a "song brought by the sailors young," and, further on, a "sing by all the fishers sung/ When go to sea but they return no more." The word "dreary," according to the Collins (2024) online dictionary, means dull, depressing, boring, tedious, and it also refers to a routine. Such meanings are in complete contrast and conflict with the otherwise ideal landscape and, after all, suggestion of the romantic relationship put up in an ideal day-dreaming context, where everything should be perfect. The word "dreary" changes all this utopic world into a dystopic world, where the lovers start having doubts. All of the utopic images are considered dull and boring, and referring to a reality which has already been explored and set forth as an example too many times, until it has reached the point where it has become a cliché or stereotype. Such state of affairs could suggest that the love experience, so strong at first, has left the poetic persona with the feeling that everything was just make-believe. The readers can feel overwhelmed by the daydreams, which are suggested to belong not only to the realm of fantasy, but also to the realm of illusions and deceit. The song that is sung by "all the fishers," and who "return no more" could be a clue offered to the significance of the word "dreary," which overturns the entire daydream world, changing it into something that does not bring happiness. The illusions associated with the daydream world seem to fall down, one by one, and to dissolve. The poetic persona suggests that all the expectations and hopes regarding the romantic relationship described in the poem prove to be simple illusions and dreams that have failed. The "peaceful shore" proves to be nothing of the kind. Readers interpret that the entire world of daydreams is, in fact its opposite. While everything should have had a positive connotation, the word "dreary" seems to break it all, turning it into something with negative connotation. The utopic, ideal world becomes a stereotype, as well as a common fantasy. The entire fabulous world seems to have fallen into a routine, suggesting the way in which a relationship, no matter how much it was wanted before, it can become a simple everyday routine.

What we call in psychology "the honeymoon phase" (Fulghum, 2016) when the relationship appears to be a dream come true, and when the love feelings are at their peak, turns into everyday life routine. Such routine can ruin the entire relationship and all hopes related to it.

The second stanza is not a moment when the poetic persona seeks to take refuge from reality. Reality sneaks in, like a shadow of a doubt, suggested by the word “dreary.” The word “dreary” could refer to the condensed opinion of the poetic persona that all the efforts to build this relationship have failed. The stanza ends with the symbolic image of some people in the north, suggested by fjords and by the direct mention of “Northern,” longing for the idealized version of the love experience. The return to reality is suggested by the word “dreary,” and the second stanza shows how the poetic persona feels conflicted in response to the situation expressed at first in the first stanza.

The poetic persona seems to have entered the idealized vision of the lady, who is of the opinion that the relationship was one of real love, and set up a shadow of a doubt, by inserting the word “dreary.” This word makes the description of the idealized, daydreamers’ world appear ironic, and to suggest the complete opposite. In fact, readers infer, the shore was not even that peaceful. The lady may have wanted the romantic relationship to be peaceful and for it to go on well.

The third stanza brings readers back to reality, in a clearer manner than the second stanza, where the feelings were ambiguous and contradictory showing that, on the one hand, the poetic persona has also hoped that everything would continue to be ideal in the romantic relationship while, at the present moment, through the word “dreary” inserted in the utopic world, he proves to be more critical and more disillusioned:

It was a dream,
A verse,
A gentle song,
Which maybe you and I did fail to know...
.....
You think our love was real, not for show?
I think it was pure madness all along! (Minulescu, in Cocoş, 2023)

The second stanza expresses in an indirect manner the doubt surrounding the idealized world of the relationship. The word “dreary” is enough to start readers doubt about the ideal world of the romantic relationship. The third stanza expressed this doubt directly: the expectations are simply referred to as “a dream,” thus suggesting it was all an illusion. The “gentle song” that was not known to the couple suggests possibilities that did not turn into reality, since the poetic persona brings about the perspective of doubt.

The last two lines of the poem are a repetition of the beginning two lines of the poem, thus ending it in a symmetrical way, showing how the poetic persona wishes to reinforce his argument and perspective, which has not changed throughout the poem.

The poem *The Symphony of Silence (Simfonia tacerii)* by Claudia Millian is presented in the translation from Romanian into English done by the author of the present paper, Drobot (2024), and which has already been published by Boldea & Sigmirean (eds., 2024). This poem shows the version of the lady involved in the romantic relationship considered by readers in the first poem. This is an imaginary connection established by the author of the present paper, based on the way in which two poets can communicate. Once we put together the two sides of the story, we notice we have two versions and two sets of expectations from a romantic relationship. While the male poetic persona seems more skeptical, the lady appears to be more prone to idealizing the relationship. In this poem, which is the version of the lady, the poetic persona continues to dream and to consider that the love relationship could have turned up well.

The first stanza presents the poetic persona, which in this case is the lady, as experiencing loneliness, from which readers infer that the first poem analysed, presenting a separation, meant a separation for good:

There is no one... There is silence and the air is deserted...
There is no one, not a shadow and not a footstep in the street,
There is no one to whisper to me when it is getting late,
When I sit like a statue by the old railing...
There is no one to call me and no one to see me. (Drobot, in Boldea & Sigmirean, eds., 2024)

Right from the first stanza, the poetic persona appears lost in a world where there is nobody left to genuinely care about her. In addition, nobody calls her, and nobody wishes to see her, which both reinforce that the relationship presented in the previous poem, by Ion Minulescu, did actually refer to a separation between the two lovers involved in the relationship.

The second stanza represents an enumeration of elements from a fabulous world, making readers think of the world of dreams from the first poem, from the second stanza:

In the sky, the crowd of blue chimeras sleeps
And in the distance the trees go down under pink veils of smoke,
In the flowers there are wax masks expressing pain,
In the sphere there is oblivion as in the posthumous soul...
There is no one, not a shadow and not a footstep on the road... (Drobot, in Boldea & Sigmirean, eds., 2024)

The second stanza seems to be part of the day dreams of the world described in the first poem, while it also mentions directly the illusions being held by the poetic persona's lady, here present under the form of "the crowd of blue chimeras" that "sleeps." The "pink veils of smoke" reinforce the idea of a fantasy world, which is further supported by the personified flowers, that "are wax masks expressing pain," and which draw the readers' attention to their being introduced now into a dystopic world, which, until then, may have just been an imaginary realm. The word "oblivion" suggests to readers the sense of disconnection between the former two lovers forming a romantic relationship. The "posthumous soul" further reinforces this impression. The last lines of the second stanza reinforce, through repetition, the idea that "There is no one," showing how the poetic persona is no longer forming a couple with the poetic persona present in the poem which was analysed first. Readers, thus, can form an image of a couple that has ceased to be together. The consequences of the break-up are shown in this second poem. "There is no one" underlines the loneliness the poetic persona in the second poem feels. The idea that nobody is there for the poetic persona to support her emotionally, and that the man in the couple has left her alone, is reinforced through the further details that follow: "not a shadow and not a footstep on the road," showing literally that the poetic persona does not connect with anyone at the present moment.

The third stanza brings up a reference to the past, which "awakens out of the blue" and which makes the poetic persona think about her "past love that much too early died," with regret:

Then the past awakens out of the blue:
My past love that much too early died—
You don't know that in silence I cry over dark regrets.
And you don't know the sadness of the late twilight,
When no one is with you and there's an empty space... (Drobot, in Boldea & Sigmirean, eds., 2024)

This third stanza does not include a refuge in the past, at least not yet. The poetic persona shows awareness about the present situation and how the loneliness can feel overwhelming, since she missed the man she loves. Readers are given to understand that the lady regrets the breakup brought forth by the man, and which was suggested by the first poem analysed in this paper. The consequences of his decision are presented here from the perspective of the lady, who confesses that she had wished for the relationship to continue. The “empty space” which she feels “When no one is with you” suggests how much the man in the first poem, as readers may draw the connection, had meant for her and still means. However, his decision has led to her sadness at the present moment.

The fourth stanza introduces readers into a fabulous world, where the poetic persona of the lady is taking refuge:

Brocade decorations stretch like a dream from above
With fragrant vases and fine shapes,
With carnation lips and burning eyes,
With passionate faces like in Byzantine temples
And on white carpets, I revive you again... (Drobot, in Boldea & Sigmirean, eds., 2024)

The world in this fourth stanza is an exotic one, just as the world in the second stanza in the previous poem appeared to be exotic, since it was suggested to belong to far-away realms. The “Brocade decorations,” the “fragrant vases and fine shapes,” the “carpets,” all of these elements suggest to readers a Middle Eastern world, a world of exotic fairy-tales. Further on, readers are given the mention of “Byzantine temples,” which helps them locate these realms in the lost worlds of history. This reinforced the fantasy aspect of this world, which no longer exists, and which could be interpreted as an illusion. The fifth stanza further on details the Middle Eastern realm atmosphere:

You are a prince: sad opals cry on your green coat,
The ruby bleeds your embroidered pagoda,
And the amethyst cries on your pale fingers...
You are a prince... and down below the people sing odes to you...
And I am the effigy of crazy voivodes... (Drobot, in Boldea & Sigmirean, eds., 2024)

The opulence of the world described seems to lose its consistency for the readers through the mentioning of words such as “cry,” “bleeds,” “pale fingers.” These words suggest the sadness of the poetic persona, the lack of substance through the image of “pale fingers,” as well as the high possibility of having everything disappear soon, like an illusion that does not last for long. The entire fantasy, opulent world seems to collapse before the poetic persona, reinforcing through the mentioned words its fragility. While the poetic persona tries to find refuge in this fantasy world, this world itself, just like the real one, seems so fragile and ready to break apart, just as the illusions and fantasies of the poetic persona, as well as her hopes, about the relationship lasting, have fallen apart.

The sixth stanza makes one more effort at the attempt to preserve the fantasy world which the poetic persona had created all through the time the relationship was going on:

Let's love each other now... Let's love each other like during the time
When the red camellias open their breasts...
When the butterflies' wings tremble over the roses
And the cypresses are soaked in the violet horizons...
Let's make love... It's nighttime and the roosters are going to start singing... (Drobot, in Boldea & Sigmirean, eds., 2024)

In this stanza, the poetic persona calls her lover to return and for them to enjoy their moments together. She invokes beautiful memories in the hope that he would remember those pleasant moments spent together too. The poetic persona's world seems more solid now and asking for her lover to maintain this fantasy world, until in the final line we readers see the allusion to its fragility. This is all a dream, which can fall apart once "the roosters are going to start singing." The roosters are known to start crying once morning is close by, awaking everyone in the household. The image of the roosters can also be interpreted as a call to the poetic persona to wake up to reality. Readers remember the attempt of the poetic persona in the first poem to try to make the lady aware of the reality that their relationship is not going on well, and that she holds so many illusions.

The seventh stanza returns to the content of the second stanza, where we see the poetic persona returning to the idea of herself feeling so lonely with the breaking up of the relationship:

In the sky, the crowd of blue chimeras sleeps
And in the morning the trees are extinguished under pink veils of smoke,
In the flowers there are wax masks of pain,
In the sphere there is oblivion as in the posthumous soul...
There is no one, not a shadow and not a footprint on the road! (Drobot, in Boldea & Sigmirean, eds., 2024)

The illusions are still present in the first part of the stanza, while they are also intertwined with allusions to sadness, which makes readers understand that the lady is aware of the ending of the relationship, while at the same time she had a contradictory attitude, where she both knows yet tries to ignore what she knows. This is a sign that she cannot accept the end of this relationship, which was likely decided by the poetic persona who expressed his point of view in the first poem analysed in this paper. The ending last line shows that the lady is confronting herself with the reality that she is now alone, both emotionally and literally, on the road.

From the point of view of psychoanalysis, the stanzas where the poetic personas enter, partially, a dream world show that we have to do with daydreams, when they dream with open eyes (van Peer & Stoeger, 2001). They fantasize about the past, yet they are also aware of reality. The conflicting attitude comes from the fact that they are both struggling to accept the break-up. Readers are not sure at first whether or not they have separated for good, but the second poem by Millian seems to confirm this. The mourning experience (Freud, 1917) is illustrated, showing how they deal with their loss. The lady seems not to accept the loss, as she tries to revive the lived person in the exotic setting, reminding of the riches of the Middle Eastern world. The male poetic persona also cannot accept the loss, yet he is angry that he cannot accept it. The lady is melancholic and nostalgic. Both poems show their struggle to reach the phase of the acceptance of the loss. For the lady, especially, the fantasy where she revives her lover comes as a means of compensation for her loss, which is underlined by mentioning that she is alone as she is walking outside.

The refuge in the fantasy world is a way of showing how fragile and ephemeral their love story has been. It was a moment of *coup de foudre* (falling very fast and intensely in love), in a Romantic sense, and what is now left is a memory of the Romantic experience. The mixture between reality and fantasy indicates the way in which the unconscious takes primacy over the poetic persona's thoughts. The Romantic fantasies suggest a state of decay present in Symbolism (Stromberg, 1968), in the first poem brought up by the word *dreary*, and in the second part by the word *revive*. Symbolism distinguishes itself from Romanticism through these elements of morbidity and decay. The poetic personas are, from this point of view, part of the context of their time, according to cultural studies (Oswell, 2006), taking over the values and beliefs, or principles, making up the Symbolist mindset. We can add to these the leaving the external reality in the background.

In both poems, the poetic personas challenge the readers' expectations regarding Symbolism, since they do not include their emotion connection with elements of external reality right there and then, during the moment of the break-up. They do not react emotionally to the change of seasons. It would be expected for them to start reflecting on the past relationship during autumn, which is a season of ending the seasonal cycle and in general a moment of psychological crisis in many poems. Instead, the poetic personas create exotic settings replacing their present moment external reality. In the first poem, the external setting is not even present at all. In the second poem, the external setting is present in a sketchy way, the only reference being a lonely street, where nobody else is walking, making no reference to the season. Readers may imagine that it is autumn due to their free associations, as in the psychoanalytic technique (Lothane, 2018), with such emotional states and the bareness and loneliness, as they are used to from other Symbolist poems. However, this association is not restricted to Symbolist poems. The readers react function of the usual props in the context of Symbolism. Additionally, the external setting reflects the emotional state of loneliness of the poetic persona, representing it literally. Yet, the reference to the external world is minimal. The lack of present-moment external setting in the first poem highlights the focus on the emotional, interior reality of the feelings, which is, after all, a Symbolist feature. The external world is recreated in a combination of the past and of the imaginary, exotic settings, the poetic persona in this first poem retreating, similarly to the poetic persona in the second poem, as we understand as readers, into their own world. The two poetic personas show a contradictory, dilemmatic relationship with the context of their time, provided by Symbolism, on the one hand adopting it and on the other hand adapting it to fit their own sensibilities, and expressing the individuality. The two poetic personas also reflect another conflictual aspect. We can infer that the male poetic persona is more interiorized than the female poetic persona. While the male poetic persona tries to reject the memories of the past, the female poetic persona wishes to revive them. In this way, they highlight the aspect of the psychological dilemma, showing two sides of the story, making the reader feeling conflicted in his or her own turn, not knowing which side to take, or to consider the right one. Additionally, readers may wonder which attitude is better, or which one they can identify themselves with in similar situations.

New Historicism (Malpas, 2013) would tell us that we are all the products of our own times, of the respective culture, ideology, and mindsets present in the society of our time. From what we have seen so far, the two poets are both part of the context of their times, which is related to Symbolism, and to poetry, yet they are also challenging some of the ideas at the same time. They are artists and art is a matter of challenging perception, as well as to present the experience it refers to from a fresh, unexpected perspective, according to Shklovsky's (1917) theory of defamiliarization. At the same time, even this mindset of their own as individuals is part of the context of the time, since Symbolism marked a move towards Modernism and experimentalism in literature.

Results

By analysing the two poems, by Ion Minulescu and Claudia Millian, readers can gain insight into the emotional reality of life together as a couple, and of a romantic relationship. We realize that conflicts can lead to creating two different versions of the story. In addition, we realize how much imagination, under its various forms, is used to make the experience of love more beautiful, as a means to express the way we feel in the relationship, transposing our feelings and experience into a fantasy land. Fantasies can also be understood under the form of illusions and expectations, which are part of the way we relate, emotionally, to the experience of love. We also always bring a personal touch to the way we see reality. We can notice how Symbolism is related to the way in which we feel about external reality, under the form of setting and under the form of us relating to our significant others in romantic relationships. Emotions are a natural part of our lives, and the way we express them and feel them is part of the universal features of poetry. Poetry can be understood as both related to the cultural context of the time, as well as having a universal component, since our individual makeup is part of both.

The exotic, far-away lands present in both poems, by Ion Minulescu and Claudia Millian, underline the fact that we all have our personal, inner world, into which we retreat when we start reflecting. At that time, the external, real-life surrounding fade in importance, since we no longer pay attention to them. We are much too preoccupied to consider our own feelings and psychological dilemmas, and this prompts us to imagine far-away, exotic, and fantasy lands. We can connect this tendency to the phrase referring to someone lost in his or her own thoughts, and which expresses this as someone retreating into their own world. The two poems give readers examples of the poetic personas' inner worlds, which are created visually as exotic, fantasy world.

Regardless of the times we live in, the imaginative process maintains its functions, in the case of these two poems, helping the poetic personas to come to terms with their loss and to offer them compensation for the current reality, the latter holding true especially for the poetic persona in the poem by Claudia Millian.

Discussion and Conclusions

The starting point for the comparative analysis of the poems by Ion Minulescu and Claudia Millian is the possibility seen by the author of the present paper to consider these two poems as forming the experience of dialogue between two poetic personas. The poetic personas need not necessarily be considered to be Ion Minulescu and Claudia Millian themselves, as we know that poets and writers in general take liberties with the interplay between reality and fantasy. Additionally, they present an experience to which anyone can relate and which is present in the life of any romantic couple. Poets present both specific and universal feelings, and ways of relating emotionally to a certain experience. Readers feel that the poets have higher intuition and higher abilities of expressing common realities, experienced by us all. The emotions expressed in these two poems regarding emotional realities of relationships can be considered more illustrative and authentic than reading psychological or psychoanalytical theories about them.

Imagination is part of the lives of the poetic personas as much as it is part of the lives of the readers. It is a universally human faculty, and we use it not only deliberately, when we create fiction, but also in our everyday lives. Our interaction with the others on a daily basis includes an amount of imagination, even if it involves only trying to fill in some missing details in order for us to form a complete picture of them and to understand them better. We do the same when it comes to better grasping certain life situations. Imagination is present both intentionally and unintentionally, or naturally. It is part of our being human, and it is related to our emotions, as illustrated in the two poems analysed in the present paper.

The fact that Symbolism marked a return to imagination, putting Realism and Naturalism aside, which focused too much on the external world and its much too common aspects, show that imagination is part of natural way of experiencing everyday life. This is also supported by the Romantic movement, which also focused on the role of imagination and highlighted its importance in the makeup of the human beings. Other movements return to the role of imagination as the main aspect of the human being, such as Surrealism. Abstract art also makes use of the imagination of the viewers to decipher and to understand what the works are about, while the artists bring about a defamiliarization type in the manner of Shklovsky (1917) of reality, once again focusing on the interior reality. Further on, trends such as Magical Realism, the genres of science fiction and fantasy, further on prove how much imagination and with it the inner world is significant to the makeup of us all. It is a natural tendency for us to create our environment by using our imagination, by infusing it with our own subjective perception, A first clue to this tendency is offered by the field of environmental psychology, showing how we always react emotionally and how our moods and behaviour are influenced by the what surrounds us, starting from the natural environment and continuing with interior design. The reverse is shown when, function of our

moods, we create another environment, to suit us, as we have seen in the two poems analysed in this paper, by Ion Minulescu and Claudia Millian.

What makes Symbolism universal and relevant to readers from all other ages is its reliance on imagination and emotional expression. These are also central elements in psychology and psychoanalysis, which shows the constant and significant role of imagination and emotions in our everyday life, as well as in our artistic pursuits.

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MARIA LIASHENKO¹

A MIXED METHODS APPROACH TO UNDERSTANDING MEDIATION ACTIVITIES VIA WIKI SITES IN TEACHING THE ENGLISH LANGUAGE AT UNIVERSITY

Abstract

The paper presents a mixed methods approach to exploring students' perceptions of using wiki sites for mediation activities in English learning. The paper addresses mainly mediation activities in the English learning which include mediation of texts, concepts, and communication. The Common European Framework was chosen as a conceptual framework to guide the research and enabled the author to design the research using an action oriented approach. An embedded sequential mixed methods design is described in the paper where the quantitative stage played a supportive role for the qualitative stage as a dominant methodological lens to address the research question. The author explains the rationale for choosing this methodology and the methods for data gathering and data analysis. The quantitative data analysis resulted in identifying a high level of general acceptance of wiki technology among students and their favourable attitudes to using wiki sites as an educational platform for English learning. The qualitative stage resulted in identifying four factors that could enhance or impede wiki deployment for mediation activities in language learning. These factors include technological, educational, motivational and psychological aspects. The findings of the research can be of interest for teachers wishing to deploy wiki technologies in their teaching practices in the context of technology enhanced learning.

Keywords: English teaching and learning, mediation activities, the CEFR, mixed methods approach, technology enhanced learning

JEL Codes: Z00, Z10

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Introduction

Information communication technologies have become an integral part of our lives. There is a belief that computer mediated technologies facilitated the paradigm shift in the culture of communicating, working, and learning (Harasim 2000). These important changes affected language learning and teaching that are underpinned nowadays by more complex and dynamic action-oriented approaches based on the ideas of mediation across cultures, worlds, and media (Piccardo et al. 2019). The concept of mediation is not new for language learning. Mediation is viewed as a key skill for learning languages because it can happen in any context where people generate or process information. Being revised and updated in 2018, the Common European Framework of References for Languages (CEFR) describes new approaches with the focus on the mediation and interaction of learners as social agents (CEFR/CV 2018). As a multifaceted phenomenon, mediation is presented as the fourth mode of communication and a key factor in the language learning process. Mediation activities include mediation of texts, concepts, and communication with the illustrative descriptors for the teacher to choose from according to the relevance of the local context, learners' needs, and the required level of language proficiency.

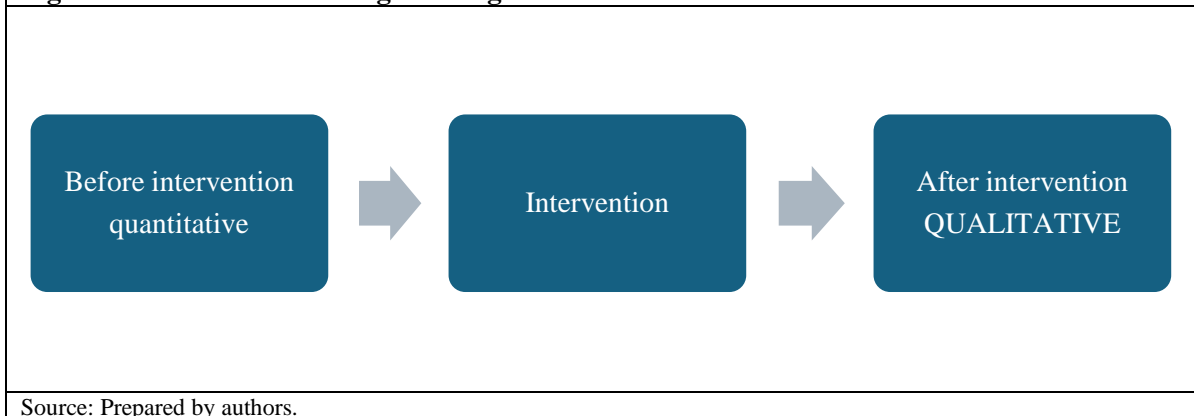
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(CEFR/CV 2018). With the new updates to the CEFR, there arises a need to explore how language teaching and learning, which are guided by new strategies, can be mediated through technology. This research describes the deployment of a wiki site as a “learning platform” (Passey 2011) to enhance involvement of students in mediation activities.

Methodology and Methods

The study proposes a mixed methods approach to explore students’ experiences of using wiki sites for mediation activities in language learning at university. Mixed methods research is the third paradigm in educational research which aims at describing and developing the tools that are closer to professional contexts (Johnson& Onwuegbuzie 2004). The paper describes an embedded mixed method design in which one data set (quantitative) provides a supportive role in the research which is based primarily on the other (qualitative) data set. At a quantitative stage TAM (Technology acceptance model) is used to measure students’ acceptance of wiki technology for learning (Davis et al. 1989). This step served as a pre-intervention phase before designing the site and its deployment. The quantitative data about the usefulness, ease of use and general acceptance of the platform underpinned the intervention stage of the wiki deployment, after which qualitative data were gathered to answer the research question about mediation activities and explain the findings from the quantitative stage. The sequence of stages is presented below. It uses notations that show the priority of the qualitative data in the study’s analysis, where lower case letters indicate “lesser importance given to a method” and upper case letters show greater emphasis (Creswell, 2014, p.228).

Figure 1: The Research Design in Stages



Action research and the research design

I opted for an action research approach because it is aligned with the theoretical framework of the study which is the CEFR. According to it, action research “implies purposeful, collaborative tasks in the classroom, whose primary focus is not language. ...The methodological message of the CEFR is that language learning should be directed towards enabling learners to act in real-life situations, expressing themselves and accomplishing tasks of different natures” (CEFR, 2018, p.27). The idea of action research is “to bridge the gap” between new descriptors for mediation activities and practical application of teaching strategies using wiki sites (Somekh 1995, p.340). It was important for me to understand better how mediation activities can be designed and deployed using wiki sites and how they are perceived by students.

Action research is cyclical by nature, including several stages of development. It develops through a spiral of cycles which include planning, implementing, observing and reflecting. The cycles start again considering the necessary changes to introduce at the next cycle (Kemmis & McTaggart 2007). Three

cycles of wiki deployment are presented in table 1 below. Each cycle means creation of a new wiki site with the purpose of using mediation activities for different teaching aims and different aspects of the English language learning. The research site was based in two universities located in Russia: The Higher School of Economics (HSE) and Minin University of Nizhny Novgorod. With each cycle the site was changed by embedding more tasks for mediation activities for English learning. At the beginning of each cycle, the students were given clear instructions during class activities about the purpose of the site, the tasks to be done via wiki and the technical recommendations on how to get access through a Google account. In some cases, I gave individual consultations if some students experienced uncertainty or problems with access, uploading or editing the materials.

Table 1. Three Cycles of the Action Study

	Cycle 1	Cycle 2	Cycle 3
University	HSE	Minin University	Minin University
Aspect of English teaching	IELTS training	General English	ESP (English for specific purposes)
Link	https://sites.google.com/view/wiki-for-ielts-training/home	https://sites.google.com/view/english-file-pre-interm-wiki/home	https://sites.google.com/view/art-and-design-mininuniver/home
Academic year	2019-2020 (start February 2020)	2020-2021 (start November 2020)	2020-2021 (start December 2020)
Course	2 course	1-2 -courses	2 course
Mediation activities	Individual and group projects Working with video/ audio content Collaborative writing Co-constructing concepts (Glossary) Writing group Forum	Individual and group projects (The story behind the photo, Inventions) Collaborative writing Co-constructing concepts (Glossary) Using wiki names	Individual and group projects (Colours in the interior, My favourite art supplies) Working with video/ audio content Collaborative writing Co-constructing concepts (Gallery, Art hacks)

Source: Prepared by Author.

The Research Sites

The study was conducted at two leading Russian universities where I worked as a teacher of English. The first university where I deployed the wiki site was the Higher school of Economics (HSE) in Nizhny Novgorod. This university was chosen as the research site for the first cycle as I had access to a larger sample of students and their level of English proficiency was higher than that of the students at Minin University, which was chosen for cycles 2 and 3. Moreover, I was afraid that students with a lower level of English proficiency would find it difficult to cope with both possible technological and language difficulties.

The second university was Minin Nizhny Novgorod State Pedagogical University (Minin University), which is one of the oldest pedagogical universities in Russia, founded in 1911. Since that time, the university has transformed, paying attention not only to pedagogy and psychology but other humanitarian disciplines. Nowadays, there are 9 faculties and more than 10,000 students studying in

bachelor, master and PhD programs. The aim of the university is to educate future teachers from six departments in more than 150 educational programmes, including both humanitarian and engineering profiles. As for language teaching, English is an obligatory discipline for undergraduate students, but the teaching hours are fewer in comparison with HSE. In both universities, Moodle LMS is used as a platform for formal learning and formative assessment. Moodle is embedded into the curriculum by providing access to lectures, tests, and other materials for studies.

The participants

The participants in the study were from undergraduate programs of the two above-mentioned universities: these are first- and second-year students who studied economics, management, IT, art, and design. Overall, more than 100 students were involved in mediation activities via wiki sites over the period of academic years 2019-2020 and 2020-2021. The sample represents a rather homogeneous group of learners in terms of age, cultural background, and a study level. The main difference is the curriculum and the students' language proficiency, with B2-C1 for the students from HSE and A2-B2 for the students from Minin University. According to the CEFR, A2 corresponds to pre -intermediate level, B1 corresponds to intermediate, B2 corresponds to upper-intermediate, C1 corresponds to advanced level. Only the students from HSE took part during the first cycle of the research. They showed C1-B2 levels of English proficiency and were trained for passing an IELTS-format test. They were familiar with the IELTS format, assessment criteria and exam tasks. The students (number=42) were from three programmes: Management (number=13), IT (number=15) and Economics (number=14). They took part in a quantitative survey of the general acceptance of a wiki site and their perceptions before the intervention. After the deployment of the wiki site for mediation activities, the students from both universities were invited to take part in interviews to share their experiences. Some students were also invited to answer questionnaires in the final stages of the data gathering process. Participation was voluntary and those who agreed to take part signed a participation consent form. At the qualitative stage, a total of 25 students from both universities were recruited and interviewed. The number of respondents from HSE and Minin University was 14 students and 11 students, respectively.

The quantitative stage

Before implementing a wiki site, it was necessary to explore how students accept wiki sites as an educational tool. The quantitative stage was aimed at finding out general perceptions and students' acceptance of a wiki site for English studies. In considering models and frameworks that would adequately answer this questions, several alternatives were evaluated. Finally, I used Davis's Technology Acceptance because it "focuses more on the importance of a technology as a tool" (Passey, 2011, p.7). The chosen model mainly describes the constructs of perceived ease of use (PEU) and perceived usefulness (PU). (Davis et al., 1989).

The data were collected from three groups of undergraduate students during the first cycle of the action study (42 students in total), who were having regular face-to face English classes at HSE university. Most students who took part in the survey came from Russia and they were of one age group (18-21 years old). The gender split was 47% male students and 53% female students. The respondents taking part in the research were only 2nd-year students who demonstrated a good level of the English language (Intermediate level and higher according to the CEFR). I used a convenience sampling and invited the students from groups where I was a teacher and was going to deploy a wiki site. The survey was conducted prior to deploying a wiki for mediation practices. It involved creating a Web-based internet survey using Survey Monkey (<https://ru.surveymonkey.com/home/>). A survey was chosen because of its advantages, such as "the economy of the design and the rapid turnaround in data collection" (Creswell, 2014, p.157). The respondents were asked to answer 7 questions using a Likert scale from "strongly agree" to "strongly disagree". The questions were designed by adopting TAM constructs to construct

statements about the ease of use, usefulness, and desire to use wiki for studies. The questions were designed by adapting questionnaires from past research (Davis, 1989; Rauniar et al., 2014). The students were provided with the information about the purpose of the wiki and general instructions regarding the tasks, the rationale for joining the site, the frequency of working with the platform and other learning opportunities. It was done through a series of face-to-face classes where I explained all the details and provided answers to the questions related to the educational potential of wiki as an educational tool. Participation in the survey was voluntary and anonymous. A total of 32 responses were returned. The data analysis showed that all the respondents knew about wiki technology and had previously used it in their studies, such as by using Wikipedia or wiki forums in Moodle. Most respondents (number=18) strongly agreed with statements about the usefulness of wiki sites for studies in general. However, 6.25% of respondents disagreed moderately with the statement. The usefulness of the site for these users was explored at a qualitative stage to find out how students perceive the usefulness of the tasks and the site as a whole after the wiki deployment. The overwhelming majority of the respondents (number=31) showed a positive attitude towards the idea of wiki deployment for studying English, with 29 respondents expressing their readiness and a high degree of intention to use it for English studies. The findings of the data analysis illustrate that a wiki site as an educational tool proves to be easy to accept from students' perspectives. However, a minor percentage of the respondents disagreed with the idea that the access to the platform was easy and that the technology was useful for studies. These statements can be categorized as issues for deeper research at the qualitative stage.

The quantitative stage provided supportive information before the deployment of a wiki site for language learning and particularly for introducing mediation activities into educational practice. The main aspects to be considered were the issues related to enhancing access to the wiki site and, at the qualitative stage, further exploring the factors that can impede the ease of access and actual usage. What is more, the analysis showed the necessity of paying attention to the rationale and the appropriateness of the tasks designed for a wiki site so that the students could see its usefulness for their studies. These findings were used to inform the design of the wiki site when considering the activities for different types of mediation activities.

The qualitative stage

The qualitative stage of this action study was focused on exploring some aspects of the quantitative stage about the ease of use and usefulness of the wiki site and the students' experiences of using wiki sites for mediation activities. This stage resulted in gathering and analysing qualitative data about students' perceptions of the wiki technology in general and mediation activities in particular. In addition, this stage enabled me to find out the factors that could enhance or impede the actual usage of wiki sites in language learning. It could be of interest for the teachers wishing to use wiki technology for mediation activities in their teaching practices.

As the part of the mixed-methods approach, I conducted semi-structured interviews and questionnaires with a sample of the participants (N=25) who took part in the mediation activities on the wiki sites. This stage started with semi-structured, face-to face in-depth interviews which were conducted online. However, closer to the completion of the data-gathering process, semi-structured questionnaires with a reduced number of questions were sent to the participants of the third cycle of wiki deployment. Along with the data saturation gathered after the first and the second cycles, I modified the form of data collection, and the number of questions was reduced to be more focused on the mediation activities. Such an emergent design is a typical feature of the qualitative research process (Cresswell, 2014).

The students from the three cycles of wiki deployment were invited to participate in the study. They took part on a voluntarily basis when the exams were over to avoid any imbalance of power between me, acting as a teacher-researcher, and the students who agreed to participate in interviews; the period

after the exam session was chosen deliberately to avoid any “power imbalance” between the data collector and the participants (Creswell, 2014, p.98). Overall, there were 14 active students from both universities, 7 students from the middle level of engagement and 4 students with a low level of participation. Such a varied pattern of participation in mediation activities helped avoid any bias towards the mediation activities and allowed data to be gathered about a wide range of experiences and perspectives.

The collected data was analysed thematic analysis which is considered to be a “foundational method for qualitative analysis” (Braun& Clarke, 2006). The aim was not only to identify themes that would unpack the meanings of students’ experiences of mediation activities, but also to explore the findings from the quantitative stage related to students’ general perceptions of the wiki deployment. The CEFR was used as a theoretical lens to view the data through the descriptors to unpack the meaning of the mediation activities. The collected data were categorised using three types of mediation activities: mediating text, concepts and communication.

The data set for mediation of text were quite voluminous: the table with the initial codes took 10 pages for all the descriptors. Overall, the largest number of codes (27) were identified for mediation of the text. They were grouped together under three overarching themes: visualization, convenience, and text production/reception. The greatest feedback was received about processing text and expressing personal response to creative texts.

The data for mediating concepts were centred around benefits and barriers for group activity. The greatest feedback was received concerning collaboration to construct meaning and facilitating collaborative interaction with peers. The least represented activity was encouraging conceptual talk because of the asynchronous format of the wiki site which does not afford direct talk about concepts. Overall, the participants mentioned convenience, an access to shared knowledge and the sense of community as the main advantages, whereas asynchronous format without direct discussion was reported to be a barrier to collaboration in a group.

Mediating communication is presented by three descriptors: facilitating pluricultural space; acting as an intermediary in informal situations; facilitating communication in delicate situations and disagreement. As stated in the CEFR, “mediating communication is primarily concerned with personal encounters, and so descriptor scales are only provided for spoken communicative activities” (CEFR, 2018, p.107). For this reason, the practical implementation of the tasks for mediating communication on the wiki site, which implies asynchronous communication, had certain limitations, which is why the data gathered to describe and unpack the meaning of each descriptor were quite scarce. The analysis resulted in the conclusion that the asynchronous format of wiki-mediated communication does not provide many opportunities for mediating communication. That is why the participant used other more flexible online channels for mediating communication: mainly messengers and social networking sites.

At the qualitative stage of the research the quantitative findings were analysed too. The quantitative stage resulted in the findings that needed more qualitative investigation. This analysis helped me identify the factors impeding or enhancing the deployment of wiki sites. These categories represent 4 factors that can impede or enhance students’ perceptions of wiki technology. Also, the data analysis showed the need to pay attention to the rationale and the appropriateness of the tasks designed for the wiki site so that the students could see its usefulness for their studies.

Discussion

This paper describes the findings which resulted from the data analysis, mainly from the qualitative stage as the dominant one in the study. The findings from the quantitative stage played a supporting role

in the research design to determine overall positive attitudes of students and their acceptance of wiki sites. The main findings of the quantitative stage were centred around the general acceptance of a wiki site for studying English. However, the factors contributing to the ease of use and the usefulness of the site needed further investigation at a qualitative stage. The analysis resulted in identifying four factors facilitating or impeding mediation activities via wiki: technological, motivational, educational and psychological. The technological and educational factors relate to cognitive mediation. Whereas psychological and motivation concern relational mediation.

Technological factors

Technological factors are represented by the affordances and limitations of the platform or advantages and disadvantages that the students could have. The main advantages are the ease of use, convenience and visualization. The first two advantages coincide with the findings from the quantitative stage. According to the interview data, all students felt that the site was *convenient* because it “can be used any time and place” (Student 19). Furthermore, it provides direct access to the materials, which are stored “in one place” (S2, S3). Most respondents pointed to the feature of *visualization*. They could “see a lot of pictures” (S10) and “somehow...remember the task right away from the picture” (S13). Many students enjoyed the opportunity to work with different images, colours and fonts, which was especially useful for students from the design faculty. S17 explained that “it is an opportunity to work on the content, taking into account our future profession”. Despite certain advantages reported by the learners, there were some disadvantages. For many students, security issues caused by log-in issues and personal data safety were the main obstacles. Another impediment was editing limitations because it is impossible to edit from a mobile phone. Moreover, the synchronous working of several participants on the site can lead to confusion or some comments being unintentionally deleted.

Motivational factors

Another theme is the motivational aspect, under which the following codes were clustered: interest, engagement, community. I classified these codes into intrinsic and extrinsic motivation, where interest and engagement are intrinsic, and community is an external condition for participants’ motivation.

Many respondents identified an increased degree of *interest*. Students acknowledged that it was “more interesting than doing home tasks” (S10) and “fascinating to see how people work” (S12). Students claimed that working on the site was “different from Moodle” (S13). Interest from the teacher was also reported as important and “stimulating” (S11). The other code under intrinsic motivation was the feeling of *engagement* in the learning process. Some respondents acknowledged better involvement in their studies (S16, 17). S5 explained that this feeling appeared “when you know that what you have written will be read”. There were varying experiences of wiki *collaboration*. A few students stated that due to its asynchronous format, they “did not have a feeling of community” (S6). S18 said that “this format is not my kind of thing”. So, the wiki cannot be viewed as a universal format because of different learning styles. However, most students described wiki sites positively as “a friendly team” (S10), “friendly conversation” (S13) or “some kind of friendly support” (S12).

Psychological factors

This theme encompasses codes related to positive and negative feelings the participants experienced when working on the sites. Positive perceptions are grouped around the feeling of confidence that is underpinned by the feeling of independence and opportunities for learning from others and building ties. Negative perceptions are centred around different fears, such as lack of security, criticism, self-expression and collaboration. For many participants, the initial activities on the site were challenging because of a *lack of security* they felt when using a shared account. This finding was discussed earlier

under the theme of technological limitations. Many students pointed to unwillingness to *collaborate*. The analysis resulted in identifying some psychological barriers for lurkers, or students with a low level of engagement. Even students with an active degree of participation expressed some fears. S3 said, “I had a fear of making mistakes”. S8 expressed unwillingness “to join discussions”. For some students, it was challenging to *express themselves* on the site, especially in writing.

However, several students described the change from the initial fears at the start to growing confidence in the end of the studying period. The students acknowledged that the perception of confidence was fuelled by the feeling of independence and freedom. S1 mentioned that working on the site “provides more freedom of thought, no sense of boundaries of a traditional classroom”. Moreover, the respondents highlighted the importance of *learning from others*. S16 said, “We can watch how we learnt vocabulary from each other.” The participants mentioned the process of *building ties* as a positive aspect of the wiki.

Educational factors

The richest data were coded around the category related to education. It was described using the following codes: context, teacher’s role, resources, assessment, learning outcomes.

As for the *context*, wiki was viewed as a new experience, which was different from Moodle or social networks. S14 noted, “I commented there more than in Moodle”. Despite more independence and freedom pointed out by the respondents, the platform was characterised as semi-formal, which means less formal than Moodle but more flexible. Despite certain advantages, the site was perceived only as an additional tool to traditional classes: S2 stated that “the site can’t be used as the main source of information”. S4 explained that it was good for “extra materials”. Many students noticed that it was not convenient for synchronous groupwork, but this asynchronous way of working was perceived as an advantage because students “can have more time to think” (S17) or “can work at [a] convenient time” (S12). Overall, the learning context mediated by wiki is different from a traditional way of learning because of novelty, a feeling of more freedom and an asynchronous way of studying, which offers both advantages and disadvantages for learners.

The second category was *teacher’s role*, which was characterised as important. However, there were varying opinions on the degree of the teacher’s participation and functions on the site. Some students felt that the teacher “should actively participate in commenting” (S1) and even “provide face-to face feedback sessions” (S2). Others believed that the teacher should act only as “a moderator” (S5, S18) or “a guide” (S6). Despite these different views, most students agreed that the teacher’s involvement and interest played a certain role in students’ engagement. Many acknowledged the importance of the teacher’s feedback and reliable resources uploaded by the teacher onto the site.

The third category was *resources*. This is also directly related to the teacher, who “acted like an expert about resources that are shared” (S6). It was pointed out that the variety of materials played an important role in students’ engagement. Many stated that wiki served as a convenient place for storing materials “in one place which was very convenient” (S17). The learners acknowledged that the structure of the site and organisation of materials were of great importance, too. Overall, the materials “were different from a traditional textbook” (S7), so the students felt their motivation “increased” (S7, S8). Many students noted that it was important to illustrate the text with pictures because “it is more effective to learn something new when I see images not only texts” (S2).

The next category is *assessment*. This category was perceived through several aspects: grades, deadlines, peer and teacher assessments. As for grades, there were varying opinions concerning the necessity or absence of grades. Some students believed that it was an obligatory element, while others thought it to be unnecessary. In addition, students acknowledged the importance of deadlines. This factor is

interconnected with peer review practice, when the papers were submitted and reviewed by students. Overall, this activity was perceived positively by learners. S12 claimed that “it was interesting to read and see how others work. This was like friendly support”. The students talked about the teacher’s role in this process, which was to provide criteria for assessment, set deadlines and upload tasks.

The final category mentioned by the students was *learning outcomes*. In each case, it was an individual achievement. According to the interview data, the students experienced changes in thinking skills from lower to higher order thinking. S14 noted the changes in the skill of putting information together: “I began to structure the information in a better way”. The students claimed that their attitude towards studies changed positively. In addition, some felt better time management skills because “you can choose yourself time ... to do tasks” (S5). The other outcome they mentioned was better comprehension of the writing process. S16 noticed an advantage of collaborative work “for better understanding the structure of an essay”. The students felt greater involvement in the process because “there is responsibility in teamwork” (S17). The most frequently cited learning outcome was more writing practice and training in other language skills, such as translating, reading or listening.

Overall, students perceived wiki sits for mediation activities as a positive experience that resulted in various learning outcomes. The analysis helped identify factors that could enhance or impede students’ activity via wiki: these factors are interconnected and should do not be considered separately. The teacher’s role is of primary importance because wiki-mediated learning is different in many ways from traditional classroom teaching.

Conclusion

This section presents some conclusions that can be drawn from the findings. The respondents provided rich descriptions of the wiki-mediated environments that were designed for mediation activities. The quantitative findings of the ease of use and convenience of wiki sites were confirmed and explored further to identify affordances and limitations of these sites. Overall, the findings point to favourable perceptions by students when working on the wiki sites. Wiki sites can be effectively used for all the skills that are required for overall mediation, such as collaborating with people from different backgrounds, creating a positive space by providing support, comparing answers or providing ideas. The sites proved to be effective for generating ideas and co-constructing meaning in collaborative activities when mediating texts and concepts.

Most students reported that wiki-mediated learning for mediation activities was a new experience for them. It differed from traditional classroom activities in many ways: asynchronous format, focus on collaborative activities, editing functions, and access to others’ works. However, the respondents reported many challenges and limitations of this type of learning. The main difficulties related to fears of editing, the time-consuming nature of the asynchronous format, and login and security issues. Despite these disadvantages, the respondents shared favourable perceptions, especially of text and concept mediation activities. The mixed methods approach deployed in the research enabled me to identify the factors that the teachers can consider when deploying wiki sites in everyday teaching practices in the context of technology enhanced learning.

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OLANREWAJU ADEWOLE ADEDIRAN¹

CLIMATE CHANGE, NET MIGRATION, FEMALE LABOUR PARTICIPATION AND SUSTAINABLE DEVELOPMENT: EVIDENCE FROM SADC COUNTRIES

Abstract

The global target is to achieve sustainable development goals (SDGs); however, the achievement of SDGs remains a challenge in most countries. The current study examines the impact of climate change, migration, and female labour participation on sustainable development using panel data of Southern African Development Community (SADC) countries from the World Bank Database from 1990 to 2023. We control for stationarity in all the variables using unit root tests and constructed indices for climate change and sustainable development using a principal component analysis for empirically correlated variables. The study investigates whether multicollinearity exists multicollinearity and removes outliers detected from overlay errors, which are inevitable while creating indices. We employed a fixed effect estimator to control unobserved time-invariance components and autoregressive distributed lag estimators to correct for cross-sectional dependence and endogeneity errors in the models. The results revealed that climate change and migration hurt sustainable development. While climate change enhances net migration, migration negatively impacts female labour participation. The recommendation suggests that policy and resources be used to mitigate the impact of climate change and to initiate a programme that would reduce migration's negative effect on sustainable development in SADC countries. Generally, we suggest sustainable policies encouraging climate action, gender equality, decent work, and economic growth.

Keywords: Climate change, net migration, female labour participation, unemployment, sustainable development, autoregressive distributed lag estimators

JEL Codes: Q54, C32, C43, J16, F22

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Introduction

Sustainable development has been stated in the Brundtland Report as development anticipated to meet the present needs and set in place the needful for future needs (Sneddon, Howarth, & Norgaard, 2006; Borowy, 2013; Hajian & Kashani, 2021). In other words, sustainable development may be referred to as a pattern of endowment and resources used to satisfy human needs and preserve the environment to cater for the present and future generations. Sustainable development could be measured by the composition of education, health, and purchasing power parity. However, the chances of achieving sustainable development are reducing daily because of inequalities and inconsistencies of human wants, macroeconomic outcomes, and institutions. For instance, there is exhaust in the ozone layer leading to global warming and climate change, diminishing natural resources, cumulating risk with some species of plants and animals, and resulting in environmental pollution (Hajian & Kashani, 2021). It is noteworthy that the only permanent thing is change, and the availability of substantial resources is the only means to sustain the changes.

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What is climate change? "Climate change may refer to a significant long-term shift in the planet's weather patterns and average temperatures, which may be a result of the inherent erratic nature of human beings." For instance, we expected that the effect of pollution would be the same all the time. However, studies have shown that there was less pollution during the COVID-19 pandemic (Muhammad, Long, and Salman, 2020) because there was a reduction in the movement of human beings during that period. Even the coronavirus does not have a consistent effect on the environment (Cheval et al., 2020). Despite the weight of understanding climate change in policy-making, there has been a scarcity of studies on climate change, net migration, and female labour participation evidence from Southern African Development Community (SADC) countries. Besides, less research has focused on the impact of climate change and other important factors in the context of SADC countries.

Existing studies have empirically revealed that education and health contribute positively to female labour participation (Osundina, 2020). The study concludes that improvement in the quality of life of women is accredited to the achievement of sustainable development goals. This points to the fact that gender equality (by saying women empowerment) is one of the core goals of sustainable development² (UNRISD, 2017). In contrast, a strand of the literature has pointed to the fact that inconsistent labour market activities and discrimination have contributed to the female labour participation stagnation in both demand and supply effects (Sahu and Behera, 2023), which negatively impacted the achievement of sustainable development evidence from Iran (Taheri et al., 2021). The inability to achieve sustainable development may be traced to cultural beliefs, corruption, and political and social imbalance. Existing studies have revealed that lack of education, unemployment, lack of income, and poverty contribute to less or lack of women's empowerment (Adediran, 2023). When poverty defines people in society, the achievement of sustainable development may not be possible.

The World Bank Initiated Poverty and Inequality Platform (PIP) is an indicator that people living below \$2.15 per day are on the global poverty line (Aguilar et al., 2022). The number of poor in Eastern and Southern Africa was 277.9 million in September 2024, next to the Sub-Saharan Africa region, which has about 411.2 million poor people at the same time (Source: Poverty & Inequality Platform, <https://blogs.worldbank.org/en/opendata/september-2024-global-poverty-update-from-the-world-bank-revise>). It is noteworthy that less empowerment is a phenomenon in inequalities, which is likely to make achievement of sustainable development a mirage and more difficult to achieve. Female labour participation is high in rural areas as they participate in agriculture and non-economic activities, but it is low in urban areas (Sahu & Behera, 2023). When individual households are largely unemployed, they think of alternative means to have a greener pasture in a foreign country, and then they migrate. The SDGs are set to be actualized by all United Nations member countries; however, many countries, especially countries from sub-Saharan African countries, are far from achieving these goals. In the estimation of sustainable development goals (SDGs) score record, only 76 countries out of 193 United Nations (UN) member countries scored above 70% (relatively pass mark) using some measurable indicators (<https://dashboards.sdgindex.org/ranking>).

What is migration? Migration may be referred to as the movements of people between two different worlds or countries (Greenberg & Marra, 2005; Dingle & Drake, 2007). For this current study, migration can refer to the relocation of resources (in human capital and value) or total labour mobility from one country to another to improve the standard of living conditions and transfer some of the rewards to the

² Sustainable development goals are 17, which consists of 1. No or eliminate Poverty, 2. Zero or erase Hunger, 3. Good Health and Well-Being, 4. Quality Education, 5. Gender Equality, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure, 10. Reduce Inequality, 11. Mobilize Sustainable Cities and Communities, 12. Influence Responsible Consumption and Production, 13. Organize Climate Action, 14. Develop Life Below Water, 15. Advance Life On Land, 16. Guarantee Peace, Justice, and Strong Institutions, 17. Build Partnerships for the Goals (retrieve from <https://www.undp.org/sustainable-development-goals>).

individual country of origin. Migration may lead to brain drain or brain gain depending on the human capital endowment or capacity of an individual who is migrating. Studies have shown that brain drain has a significant relationship with the unemployment of university graduates using a time series analysis in the case of Indonesia (Iravani, 2011; Yunitasari, Khotimah, & Fathorrazi, 2021). In the case of Asian countries, Huynh and Vo (2023) found that an increase in migration is a benefit to some low-income and low-middle-income countries as it reduces both short- and long-term unemployment.

The anti-immigrant attitude is rising in some parts of the world, such as North and Southern Africa, Southeast Asia, and the Middle East, and is contributing to unfavourable economic outcomes and conditions. International migrants have increased in number over time, with a total estimation of 281 million people living in a country aside from their country of origin in 2020 as compared to 174 million in 2000. It is important to note that when it comes to social imbalance in the household or society, females and children are more vulnerable. Hence, we might speculate that females are likely to migrate more than men. The irony is that males have the highest record of migration. For instance, female is about 48.1% (135 million) and male is about 51.9% (146 million) in the year 2020 as compared to 2000 when female 49.4% (86 million) and male 50.6% (88 million) (sourced <https://worldmigrationreport.iom.int/msite/wmr-2024-interactive/>).

There is no consensus on the impact of migration and labour market participation on sustainable development. Migration contributes positively to the labour market and influences sustainable development. It may negatively impact a structured, developed economy where the professionally trained brains are drained from in developing countries. Existing studies have argued that migration has the potential to increase the supply of labour and unemployment, allowing fair competition and the weak inflation rate of labour wages in the case of selected European countries (Blanchflower & Shadforth 2009). While we envisage that labour participation (in terms of unemployment) may lead to migration. Climate change is another factor that could make individuals migrate (Kaczan & Orgill-Meyer, 2020). Existing studies have revealed that climate change and displacement are drivers of migration (Beine & Jeusette, 2021). While the relationship between climate change and migration has been exploited in the context of developed countries, limited studies have investigated the impact of climate change on migration in the case of sub-Saharan African countries, especially in the context of SADC countries.

The current study is contributing to ongoing contemporary issues by investigating the impact of climate change, migration, and female labour participation on sustainable development. The remaining parts of the study are as follows: Section 2 is about the data source; Section 3 consists of the methods; Section 4 presents the empirical results; and Section 5 is the conclusion of the study.

2. Data and Methodology

2.1 Data, Unit Root, Construction of Indices and Outlier Removal Method

The study sourced the dataset for Southern African Development Community (SADC) countries from the World Bank Database from 1990 to 2023 for analysis. We employed an interpolation population of some missing variables, transformed them into log forms for high-value data, and performed a stationary test. The study employed two types of unit root tests for consistent Im-Pesaran-Shin (Im et al., 2003) and Fisher-type unit root (in Table A1 in Appendix 1) to avoid spurious analysis. While at the level the variables are not statistically significant at a 10% level, at the first difference variables are statistically significant at 1%. This implies that variables are stationary at the first difference. Furthermore, some variables are transformed and constructed key variables (climate change index and sustainable development index) using principal component analysis (PCA). The study identified the indicators of

climate change³, and sustainable development⁴ from the World Bank development indicators (data) and used principal component analysis.

Empirically, the study selects suitable variables for each key variable by conducting a correlation analysis. The variables that are positively correlated are selected for restructuring. Hence, CO2 intensity (or carbon emissions), mineral depletion, and natural resource depletion are correlated variables for climate change, and agriculture, forestry, fishing, and aquaculture production are variables for sustainable development. It is noteworthy that PCA is suitable for restructuring continuous variables. In the Stata application of PCA, variables are listed against PCA, rotate the loading, and predict the index. Then, the study conducted a post-estimation by using Kaiser-Meyer-Olkin (KMO), which has a threshold value of 50%. The KMO value for Sustainable Development Indicators is 50%, and the climate change index is approximately 50%.

Table 1. Test for Multivariate Normality					
Mardia mSkewness	= 40.63219	chi2(84)	= 3601.054	Prob>chi2	= 0.000
Mardia mKurtosis	= 86.91927	chi2(1)	= 599.376	Prob>chi2	= 0.000
Henze-Zirkler	= 19.47078	chi2(1)	= 13042.764	Prob>chi2	= 0.000
Doornik-Hansen		chi2(14)	= 559.933	Prob>chi2	= 0.000

Source: Computed by the Author.

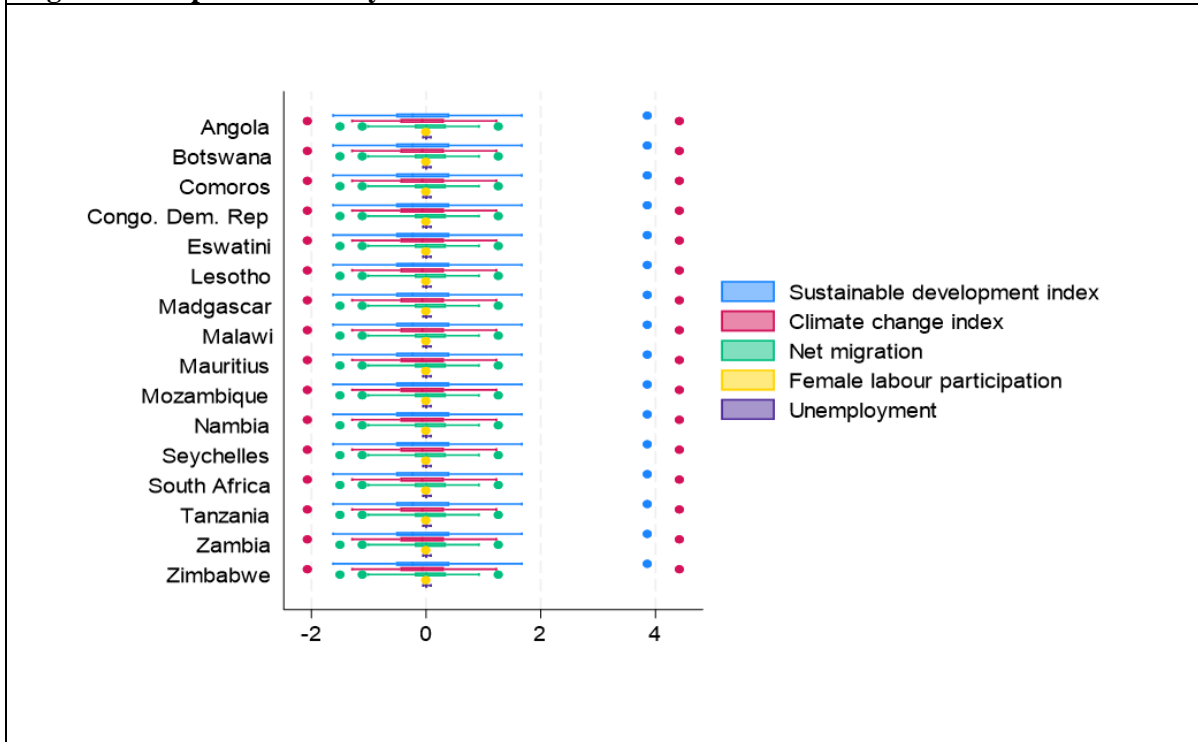
Table 1 presents the statistical analysis of the multivariate (skewness and kurtosis) normality test. The normality test rejects the null hypothesis as it shows a p-value of 0.000, which implies that the key variables such as sustainable development, climate change, net migration, and female labour participation are not normally distributed. We investigate whether there is an overlay and extreme observation.

The study examines the presence of overlays and outliers in the data before the estimation using a graph box. Figure 1 graphically shows the overlay of the sustainable development index, climate change index, net migration, and female labour participation data points that are outside the box. The graphical display of the variables is important to detect whether there are outliers. However, there is no obvious data point outside the expected sequence of the graph box. All the data points outside the sequence are likely to be outliers.

³ Comprises of CO2 intensity (or carbon emissions), energy depletion, mineral depletion, natural resources depletion, particulate emission damage, average precipitation in depth (mm per year).

⁴ Value added per worker of agriculture, forestry, and fishing, total fisheries production, aquaculture production, cereal production, cereal yield, and crop production index.

Figure 1. Graph Box for Key Variables



Source: Computed by the Author.

The study conducted empirical procedures to correct for the outlay and outliers in the dataset without a graph (see Table 1, column 1). The study predicted residual and listed sixteen (16) countries in the model to identify if the absence of residual is greater than 2. Then, the study drops from the model if the absence of residual is greater than 2, and 32 observations were deleted from the model. Hence, we estimate the model (see Table 1, column 2). Table 2 revealed that the overlay and outlier have less effect on the model.

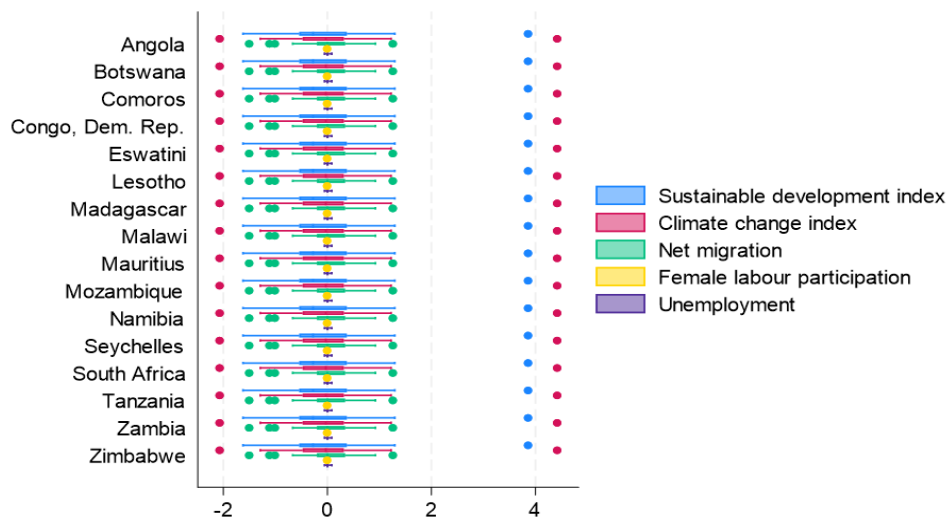
Table 2. Result of Detection of Overlay and Correction for the Presence of Outlier Estimation

Variables	(1) Sustainable development	(2) Sustainable development
Climate change	-0.154*** (0.0532)	-0.137*** (0.0483)
Net migration	-0.854*** (0.0944)	-0.994*** (0.0856)
Female labour participation	-35.57*** (13.65)	-19.52 (14.68)
Unemployment	1.226 (1.154)	-0.829 (1.092)
Inflation rate	0.490*** (0.0814)	0.566*** (0.0745)
Exchange rate	0.730*** (0.173)	0.622*** (0.147)
Constant	-0.0357 (0.0349)	-0.106*** (0.0330)
Observations	528	512
R-squared	0.267	0.374

Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Source: Computed by the Author.

Figure 2. Graph Box for Key Variables After Correcting for Overlay/Outliers



Source: Computed by the Author.

Without correcting for overlay error in the model, the analysis is likely to produce overestimated results.

2.2. Summary Statistics

Table 3 presents summary statistics of the key variables such as sustainable development, climate change, net migration, female labour participation, GDP per capita, population, unemployment, inflation rate, and exchange rate for the panel. The study selected 16 SADC countries in the sample, and the total number of observations is 512. In the panel, the average value of sustainable development and climate change is close to zero (0) and the standard deviation is close to one (1). The minimum value for sustainable development is -1.62 and the maximum value is 3.86. While the minimum value of climate change is -2.07 and the maximum value is 4.42. The standard deviation for climate change is approximately one (1) and the average is 0.01.

Table 3. Descriptive Statistics

Variables	Min	Max	Mean	SD	Skewness	Kurtosis	Obs
Sustainable development	-1.623	3.857	-0.052	0.970	1.941	8.923	512
Climate change	-2.072	4.417	0.013	1.013	2.247	12.035	512
Inflation rate	-2.225	1.914	-0.007	0.855	-0.210	4.129	512
Exchange rate	-0.645	1.084	0.078	0.231	1.677	14.349	512
Net migration	-1.504	1.257	-0.029	0.540	-0.457	4.117	512
Female labour participation	-0.007	0.004	0.001	0.002	-0.917	3.754	512
Unemployment	-0.054	0.085	0.003	0.028	0.4207	3.842	512

Source: Computed by the Author.

The migration minimum value is -1.5, the maximum is 1.26, the mean is -0.03, and the standard deviation is 0.54. Female labour participation value ranges between -0.007 and 0.004, the mean is 0.001, and the standard deviation is 0.002. Unemployment ranges from -0.05 to 0.09 with a mean of 0.003 and a standard deviation of 0.028. The inflation rate and exchange rate have a minimum value of -2.23 and -0.65 and a maximum value of 1.91 and 1.08, respectively. While some variables are less than one (<1), it implies that they are normal skewness (normal skewness is zero). Some variables are (minus 1) negatively skewed to the extreme left tail. The kurtosis measures the peakedness of the variables. If the variables are platykurtic, it means they are less than 3. Some variables are leptokurtic because they are greater than 3. However, the summary statistics suggested that the datasets are not normally distributed even after empirical correction for outliers. The variables have irregular patterns, which suggest a mixture of datasets from periods where the United Nations (UN) goals are to achieve Millennium Development Goals (MDGs) (until 2015) and Sustainable Development Goals (SDGs) (ongoing). The unstable pattern of set goals over the periods may affect the results.

2.3. Estimation Methods

The existing studies have investigated the effect of climate change (Singh et al., 2019; Yang and Cui, 2019; Ray and Ray, 2023), female labour participation (Mujeed et al., 2021; Sileem and Al-Ayouty, 2022; Bilgili et al., 2023), and migration (Semenenko and Khandii, 2018; Bhula-or, 2020; Ray, 2021) on sustainable development. The studies have used various methods; however, the current study employs

a fixed effect estimator to control for time invariance component and autoregressive distribution lag (ARDL) estimators to control for time invariance component and cross-sectional dependence and endogeneity in panel analysis. To achieve the objective of understanding the impact of climate change, migration, female labour participation, and unemployment on sustainable development, the panel model is specified below.

$$SD_{it} = \alpha_{it} + \alpha_1 CL_{it} + \alpha_2 NM_{it} + \alpha_3 FLP_{it} + \alpha_4 UME_{it} + \alpha_5 IR_{it} + \alpha_6 ER_{it} + \varepsilon_{it} \quad (1)$$

where SD_{it} denote sustainable development for the individual country (i) over time (t = 1990-2023); CL_{it} represents climate change; NM_{it} is net migration; FLP_{it} represents female labour participation; UME_{it} denote unemployment; IR_{it} implies inflation rate and ER_{it} exchange rate. While α_{it} denote constant term, ε_{it} is the error term.

3. Empirical Results and Discussion

3.1. Correlation Analysis

Table 4 presents the correlation analysis of the relationship between the explanatory variables and the outcome variable (sustainable development). The study results show that there exists a negative relationship between sustainable development and climate change (-0.002). While the variables such as migration (-0.42), female labour participation (-0.03), unemployment (-0.098), and sustainable development are negatively corrected. The inflation rate (0.26) and exchange rate (0.083) are positively correlated with sustainable development.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	VIF	1/VIF
(1) Sustainable development	1								
(2) Climate change	0.0016	1						1.669	0.599
(3) Migration	-0.417	0.264	1					1.201	0.833
(4) Female lab. Participation	-0.0309	0.0986	-0.235	1				1.196	0.836
(5) Unemployment	-0.0975	-0.0258	0.0537	0.1466	1			1.21	0.826
(6) Inflation rate	0.2559	0.5111	0.3149	0.1841	0.0308	1		1.573	0.636
(7) Exchange rate	0.0826	0.2665	0.0434	0.0267	0.3782	0.0275	1	1.318	0.759
Mean VIF								1.361	

Source: Computed by the Author.

Furthermore, the rule of thumb in the variance inflationary factors (VIF) is that the VIF must not exceed 10 (Wooldridge, 2015). This implies that there is an absence of collinearity or multicollinearity in the model.

Table 5. Analysis of Testing for Slope Heterogeneity

Dependent variable	Sustainable development
Test	Statistic
Delta	-6.928***
adj. Delta	-8.090***

Note that *** denote $p < 0.01$ (or 1%).

Source: Computed by the Author.

The hypothesis rejects that slopes are homogenous following the Pesaran and Yamagata (2008) test. Hence, the slope coefficient is heterogeneous, which implies that all slope coefficients are different across the cross-sectional panels in the model where sustainable development is the dependent variable.

Table 6. Cross-sectional Dependence (CSD) Model 1

Variables	CD-test	average joint T	mean ρ	mean abs(ρ)
Sustainable development	61.968***	32.00	1.00	1.00
Climate change	61.968***	32.00	1.00	1.00
Net migration	61.968***	32.00	1.00	1.00
Female labour participation	61.968***	32.00	1.00	1.00
Unemployment	61.968***	32.00	1.00	1.00
Inflation rate	61.968***	32.00	1.00	1.00
Exchange rate	61.968***	32.00	1.00	1.00

Notes: Under the null hypothesis of cross-section independence, $CD \sim N(0,1)$; P-values close to zero indicate data are correlated across panel groups. *** denote $p < 0.01$.

Source: Computed by the Author.

Table 6 displays the result of the cross-sectional dependence (CSD) test following Pesaran's (2004) panel analysis. The CSD test accepts alternative hypotheses that there is cross-sectional dependence among the variables in the model. The findings are compatible with existing studies (Elzaki, 2024).

Table 7. Analysis of Cointegration Test

	Kao	Pedroni	Pedroni, trend ar(same)	Westerlund
Modified Dickey–Fuller t	-3.664***			
Dickey–Fuller t	-5.310***			
Augmented Dickey–Fuller t	-12.099***	-4.424***	-4.873***	
Unadjusted modified Dickey–Fuller t	-20.448***			
Unadjusted Dickey–Fuller t	-11.285***			
Modified Phillips–Perron t		3.752***	3.294***	
Phillips–Perron t		-7.147***	-6.834***	
Modified variance ratio			-5.280***	
Variance ratio				5.490***

Source: Computed by the Author.

We performed and presented various cointegration tests, such as Kao (1999), Pedroni (2004), and Westerlund (2008), in Table 7. The results are statistically significant and consistent with various cointegration test options. The result accepts the alternative assumption and rejects the null assumption of no cointegration in the model. There exists a long-run linear relationship between climate change, migration, female labour participation, unemployment, inflation rate, exchange rate, and sustainable development. The Westerlund cointegration test accounts for a high degree of heterogeneity in long-run and short-run relationships, cross-sectional dependence, and multiple structural changes (Westerlund, 2007; Murthy & Ketenci, 2020).

3.2. Estimation

Table 8. Fixed Effect Estimator

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	Sustainable development	Sustainable development	Sustainable development	Sustainable development	Sustainable development	Sustainable development
Climate change	-1.436*** (0.0195)	-0.0342 (0.0344)	-1.282*** (0.0267)	-0.0440 (0.0390)	-0.881*** (0.0724)	0.224*** (0.0366)
Migration	0.0114 (0.00748)	-1.674*** (0.0653)	0.166*** (0.0166)	-1.473*** (0.0663)	-0.103** (0.0429)	-1.225*** (0.0798)
Unemployment	-2.009*** (0.176)	11.60*** (1.269)				
Inflation rate	-0.160*** (0.00580)	0.796*** (0.0410)	-0.144*** (0.00681)	0.725*** (0.0451)		
Exchange rate	-1.504*** (0.0267)	-0.252* (0.150)	-1.347*** (0.0218)	-0.313* (0.168)		
Female labour participation			26.39*** (2.951)	-25.47 (16.27)	-2.070 (7.120)	-69.23*** (19.30)
Year dummy 1990-2016	Yes		Yes			
Year dummy 2027-2023		Yes		Yes		
Constant	-0.466*** (0.00402)	0.122*** (0.0334)	-0.504*** (0.00423)	0.129*** (0.0416)	-0.461*** (0.0116)	0.106** (0.0434)
Observations	512	512	512	512	512	512
R-squared	0.999	0.672	0.998	0.617	0.985	0.393
F- stat.	10899.45***	82.56***	9988.22***	64.99***	1150.98***	31.47***
No of countries	16	16	16	16	16	16
sigma_u	0	0	0	0	0	0
sigma_e	0.0390	0.571	0.0407	0.617	0.123	0.775
rho	0	0	0	0	0	0

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1; In the year dummies 1990 and 2012 are omitted

Source: Computed by the Author.

Table 1 presents the results of the fixed effects estimator, which controls for time invariance components, unobserved, and time effects in a panel analysis. Column (1) shows that climate change has a significant negative effect on sustainable development (Nhemachena et al., 2020). Also, unemployment negatively impacted sustainable development (Siddikee et al., 2020; Tjahjanto et al., 2023). The inflation rate and exchange rate have a significant negative effect on sustainable development.

Column (2) presents that climate change has an insignificant negative impact on sustainable development for analysis from when sustainable development goals were introduced. Migration has a significant negative effect on sustainable development. Also, the exchange rate has a significant negative impact on sustainable development. We are surprised by the findings that show that unemployment has a significant positive impact on sustainable development. Also, the inflation rate has a significant positive effect on sustainable development.

Column (3) presents that climate change has a significant negative effect on sustainable development. Similarly, migration has a significant negative impact on sustainable development. Also, female labour participation has a significant positive impact on sustainable development.

In Column (4), climate change has an insignificant negative effect on sustainable development. And female labour participation has an insignificant negative impact on sustainable development. Migration has a significant negative impact on sustainable development. While the exchange rate significantly and negatively impacted sustainable development. The inflation rate has a significant positive effect on sustainable development.

Column (5) presents that climate change has a significant negative impact on sustainable development. Similarly, the inflation rate has a significant negative effect on sustainable development. Column (6) shows that climate change has a significant positive impact on sustainable development. Migration has a significant positive impact on sustainable development. Female labour participation has a significant negative impact on sustainable development.

3.3. Dynamic Panel Analysis

For a sensitivity analysis, the study verifies the effect of climate change, female labour participation, migration, and unemployment on sustainable development by employing autoregressive distributed lag (ARDL) panel estimators, that is, panel mean group (PMG) and dynamic fixed effect (DFE).

Table 8. Results of PMG and DFE Methods (Unemployment in the Model)

Variables	(1) PMG	(2) DFE	(3) Hausman
Short run			
Error Correction coeff.	1.137 (0)	1.264*** (0.0803)	841.36***
Climate change	-0.218*** (0)	-0.0837 (0.0513)	
Migration	0.0899 (0)	0.000893 (0.142)	
Unemployment	1.880*** (0)	-1.808 (1.870)	
Inflation rate	0.203*** (0)	0.141 (0.111)	
Exchange rate	-0.389*** (0)	-0.0722 (0.216)	
Constant	5.326 (0)	-9.534*** (2.822)	
Long run			
Climate change	-0.468*** (0.0944)	-0.229*** (0.0730)	
Migration	0.0766 (0.110)	-0.0711 (0.0915)	
Unemployment	-0.354 (1.003)	-3.468*** (0.835)	
Inflation rate	0.464*** (0.0736)	0.327*** (0.0625)	
Exchange rate	0.560*** (0.101)	0.0716 (0.0908)	
Observations	480	480	.

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1; PMG denote panel mean group; DFE denote dynamic fixed effect.

Source: Computed by the Author.

The dynamic heterogeneous panel analysis controls for cross-sectional dependence and heterogeneous and endogeneity issues in the model that the fixed effect estimator is unable to control for. Table 8 presents the results of the PMG, DFE, and Hausman tests for the impact of climate change, migration, and female labour participation on sustainable development. However, the Hausman-test result is statistically significant, which implies that the dynamic fixed effect result is accepted and appropriate findings of the analysis. In the short run, climate change has an insignificant negative effect on sustainable development. Also, unemployment has a large but insignificant negative impact on sustainable development. Similarly, the exchange rate has an insignificant impact on sustainable development. Whereas migration has a minor, insignificant positive effect on sustainable development. Also, the inflation rate has an insignificant positive effect on sustainable development.

In the long run, climate change has a significant negative impact on sustainable development. Also, unemployment is likely to have a significant negative impact on sustainable development. The inflation

rate has a significant positive impact on sustainable development. Migration has an insignificant negative impact on sustainable development.

Table 9. Results of PMG and DFE Methods (Female Labour Participation in the Model)

Variables	(1) PMG	(2) DFE	(3) Hausman
Short run			
Error Correction coeff.	1.195*** (0)	1.186*** (0.0703)	1353.02***
Climate change	-0.0695*** (0)	0.0661 (0.0477)	
Migration	0.228*** (0)	-0.0171 (0.112)	
Female labour participation	-4.148*** (0)	45.43** (19.73)	
Constant	-154.5*** (0)	-324.7*** (28.09)	
Long run			
Climate change	-0.213*** (0.0695)	0.0185 (0.0644)	
Migration	0.0916 (0.0940)	-0.353*** (0.0966)	
Female labour participation	-33.85*** (6.061)	-70.40*** (6.667)	
Observations	480	480	.

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1; PMG denote panel mean group; DFE denote dynamic fixed effect.

Source: Computed by the Author.

In the second model, the study considers the impact of climate change, migration, and female labour participation on sustainable development. The results of the PMG, DFE, and Hausman tests are in Table 9. The Hausman-test result is statistically significant, which implies that the dynamic fixed effect result is acceptable. In the short run, Table 9 presents the results of the impact of climate change, which has an insignificant positive and migration has an insignificant negative impact on sustainable development. Female labour participation has a significant positive effect on sustainable development in the short run. In the long run effect, climate change is likely to have an insignificant positive impact on sustainable development. While unemployment is likely to have a significant negative impact on sustainable development. Also, female labour participation is likely to have a significant negative impact on sustainable development.

3.4. Discussion

The first analysis considered the impact of climate change, migration, unemployment, inflation rate, and exchange rate on sustainable development. The second analysis examines the impact of climate change and female labour participation on sustainable development. Climate change may be caused by extreme weather (Mann et al., 2017; Clarke et al., 2022), and it may lead to environmental degradation (Piguet, 2022; Nguyen et al., 2023), which could negatively affect agricultural production (Malhi et al., 2021) and food security (Hasegawa et al., 2018; Muluneh, 2021) with a spillover effect on reduced

productivity, poverty, and less economic growth (Dasgupta et al., 2021). When unemployment is considered in the model, climate change may have an insignificant negative impact on sustainable development in the short run. However, the long-run effect revealed that climate change harms sustainable development.

Furthermore, climate change might also increase unemployment and reduce the potential ability of females to participate in the labour market (Shayegh & Dasgupta, 2024). Existing studies have pointed to the fact that females living in developing countries are prone to adverse effects of climate change, especially in a situation where a large number of them are low-skilled workers (Shayegh & Dasgupta, 2024). More so, we know that females are the caregivers (Sharma et al., 2016; Lee et al., 2021), but existing studies have remarked that there is a tradeoff between childcare and female labour participation (Cascio et al., 2015; Budig et al., 2016). How much more when the weather is not favourable for females to participate in the labour market? They will eventually lack income and decision-making power. In other words, an increase in female labour participation is likely to contribute to the speedy achievement of sustainable development goals. Studies have pointed to the fact that the enhancement of gender in environmental policy will foster environmental outcomes (Wang et al., 2021; Bilgili et al., 2022). Hence, understanding gender dynamics and cultural diversity in the workspace might pave the way for the participation of locals and marginalized groups in society that have the capacity, are trained, and are ready to work. There is a need for serious transformation in the labour market to prioritize local employment more than immigrants that are ready to work at a reduced remuneration with unsuitable conditions of service.

The findings show that the effect of migration on sustainable development is inconclusive in the short run. However, there is a probability that migration is likely to hurt sustainable development in the long run. In connecting the analysis, existing studies have revealed that extreme weather (in agriculture) may lead to unemployment, poverty, and a lack of income, which may contribute to migration decision-making (Kaczan & Orgill-Meyer, 2020). This implies that when there is extreme weather (or climate change), that could make people living in rural areas migrate to urban areas or migrate from one country to another. There is a plausibility that there will be inequality in the new country people migrated to and poverty in the rural areas or countries of origin.

In the short run, the findings revealed that the inflation rate has an insensitivity impact on sustainable development. There is a scarcity of studies on the impact of exchange rates on sustainable development. Existing studies have found that inflation rate and exchange rate volatility negatively affect sustainable development (Kamoun, 2019; Ebekozién et al., 2024). Other studies have found that exchange rate volatility hurts economic growth (Olamide et al., 2022; Moloi, 2023). The findings show that the exchange rate has an insignificant effect on sustainable development in the short and long run. The inflation rate has a significant positive impact on sustainable development. It is important to note that the current study does not consider the exchange rate and inflation rate volatility, but the real exchange rate and inflation rate.

Our findings are compatible with Girdzijauskas et al. (2022), which find that the inflation rate is a driver of sustainable development. I believe that the significant positive impact of the inflation rate on sustainable development, in the long run, might be the result of a serious development programme coupled with strong monetary policy regulations in SADC countries.

4. Conclusions and Recommendations

While there are existing studies on the effect of climate change on sustainable development in various parts of the world. Studies have investigated the impact of climate change on sustainable development (Reckien et al., 2017; Alsheyab, 2022). The effect of female labour participation in sustainable development (Osundina, 2020; Taheri et al., 2021). The impact of migration on sustainable development (Falco et al., 2019; Kaczan & Orgill-Meyer, 2020; Beine & Jeusette, 2021). The impact of unemployment on sustainable development (Tjahjanto et al., 2023; Khan, 2024). However, there is a scarcity of empirical studies on the impact of climate change, migration, female labour participation, and unemployment on sustainable development in the context of SADC countries. The current study controls for the unobserved time effect, cross-sectional dependence (CSD), and endogeneity issue.

The results revealed that climate change and migration hurt sustainable development (Clarke et al., 2022) in the long run. Migration may occur due to adverse effects of weather or adverse economic situation in a place or location. Studies have found the drought and negative effects of rainfall conditions decline international and local migration (Kaczan and Orgill-Meyer, 2020). Also, unemployment may harm sustainable development in the long run. While climate change may contribute to migration (Kaczan and Orgill-Meyer, 2020), migration negatively impacts female labour participation. Similarly, female labour participation has a significant negative impact on sustainable development in the long run. Existing studies have found that the inflation rate influences sustainable development (Girdzijauskas et al., 2022). The positive effect of monetary policy is likely to affect price stability. The demand-drive inflation may be tagged as a component of inflation to lead to economic growth. This is a situation where there is a side-by-side rise in the inflation rate and economic growth.

The recommendation suggests that policy and resources be used to mitigate the impact of climate change and to initiate programme that would reduce the negative effect of migration on sustainable development in SADC countries. The governments and stakeholders require joined policies to address climate resilience and economic opportunities in exposed regions to reduce migration. Also, there should be a policy that addresses gender gaps in education, and discrimination against females in the labour market and unemployment are essential to SDG 5 (Gender Equality) and SDG 8 (Decent Work and Economic Growth). Additionally, the government should create green jobs to reduce unemployment and climate change by promoting renewable energy and sustainable agriculture. The study suggests sustainable policies that will encourage climate action, gender equality, decent work, and economic growth.

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Appendix 1

Table 1A. Unit Root Tests				
Variables	Im–Pesaran–Shin		Fisher-type unit-root	
	Level	1 st different	level	1 st different
Climate change Indicators				
Carbon Emissions CO2	0.052	-4.672***	0.461	-4.935***
energy depletion (% of GNI)	-8.716	16.266***	-12.498	-66.864***
mineral depletion (% of GNI)	-3.382***	-13.136	-3.899	-32.404***
natural resources depletion (% of GNI)	-2.071**	-14.168***	-1.616*	-40.343***
particulate emission damage (% of GNI)	-2.5806***	-14.334***	-3.538***	-41.707***
Average precipitation in depth (log)	4.869	-13.351***	4.962	-33.862***
Sustainable Development Index				
Agriculture, forestry, and fishing, value	-5.435***	18.046***	-6.0255***	-79.97***
Total fisheries production	-1.317*	-15.201***	-0.561	-49.117***
Aquaculture production	-7.811	-14.774***	-9.978***	-43.254***
Cereal production	0.373	-16.008***	2.0039	-65.093***
Cereal yield	0.373	-16.008***	2.0039	-65.093***
Crop production index	5.462	-15.045***	6.145	-52.496***
Other variables				
Population (log)	-5.968	-15.809***	-7.192	-57.842***
Inflation rate (log)	-0.658	-14.618***	-0.033	-45.515***
Exchange rate (log)	-2.054**	-12.270***	-1.7348**	-27.016***
Net migration (log)	-6.810***	-13.855***	-9.124	-37.513***
Labour (log)	15.500	-13.203***	13.520	-32.386***
Female labour participation (log)	-6.055***	-11.255***	-7.286	-21.790***

Source: Computed by the Author.

TAMER BUDAK¹ AND SERKAN BENK²

THE ECONOMIC, SOCIAL, AND TAXATION IMPACTS OF IRREGULAR MIGRATION IN EUROPE, THE UK AND TÜRKİYE

Abstract

Irregular migration has emerged as a collective burning issue in Europe, the UK, and Turkey and has economic, social, and taxation effects. The nature of said effects changes between different regions based on differing migration policies, labour market conditions, and access to public resources. Irregular migrants fill labour gaps most often in low-paying sectors, such as agriculture and construction, while working mostly in the informal economy; thus, they contribute very little to tax revenues. This adds to the fiscal challenges faced by governments already under pressure to provide social services, such as healthcare and housing. Besides economic implications, irregular migration has another set of social effects, including social tension, cultural integration challenges, and public concerns relating to resource competition.

Keywords: Irregular migration, economic impacts, social impacts, taxation.

JEL Codes: F22, H2, J61, R23

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1. Introduction

Irregular migration has emerged as a significant issue across Europe, the UK, and Turkey in recent years. This issue is not only national or community but also international. This produces multi dimensions matters for developed and developing countries. The term irregular migrant is controversial. There is no legal or commonly approved definition of an ‘irregular migrant’, although the term mostly refers to people in the country without the legal right to stay and residence. Irregular migration is mostly used to as illegal immigration (Walsh, 2020). The use of the term illegal in this context is considered contentious, for two reasons. First, illegal immigration can suggest the breaching of criminal laws. In some countries, breaching immigration laws is an administrative rather than criminal matter (FRA, 2014; Provera, 2015; Walsh, 2020). However, in some countries like the UK irregular migration is thought as a criminal offence knowingly to enter or remain to live in the country without permission from authorisation (Immigration Act 1971).

The extraordinary flows of migrants, often driven by conflict, poverty, or political instability, have presented distinct challenges in economics, social cohesion, and taxation. The different responses by governments across these regions reflect the complexity of managing migration while balancing national interests and human rights obligations (WEF, 2022).

This paper try to explore the economic, social, and taxation-related effects of irregular and undocumented migration in Europe, the UK, and Turkey. It draws on diverse sources of evidence, including academic literature, policy reports, and economic data, to assess the impacts in these regions.

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While the focus is on irregular migration, some findings may also be applicable to other forms of migration.

2. Irregular Migration Trends: 2018-2023

Irregular migration has become a major and complex phenomenon impacting many countries across Europe, the UK, and Turkey in a pilot way. It was only in the past decade that an unprecedented shift in the vectors of migration, largely driven by geopolitical, war, instability, economic disparity, and shifting policies of these regions, took place. This escalation in European and Britain irregular entries has been aggravated by the rise in the conflicts and the consequent socioeconomic pressure in certain areas. Turkey, located at the shores of East and West, has now surfaced as a hotspot on the migration route toward Europe, with many migrants traversing through the borders while seeking refuge in Europe (FRA. 2023). The following data is important to show the development of irregular migration movements to the relevant regions and countries.

An overview of irregular migration trends in Europe, the United Kingdom, and Turkey from 2018 to 2023, based on available data sources. These insights can be summarized into a table for clear visualization. For EU: An overall increase in irregular entries from 2021 to 2023, peaking at 210,000 entries due to intensified instability in nearby regions and economic pressures. For UK: Small boat crossings rose significantly from 300 in 2018 to around 45,000 annually in 2022 and 2023 (Home Office, 2023). As for Turkey: Often a transit country, Turkey observed a large influx, especially between 2018 and 2020, related to political instability in surrounding regions. Numbers fixed somewhat around 300,000 yearly. In the period 2018-2023, the migration dynamics within Europe, the UK and Turkey appear to be multifaceted and developing, with each having its challenges.

3. Economic Impacts of Irregular Immigration

The economic impact of irregular migration is multi-dimensional and varies across regions, depending on the size and characteristics of migrant flows, the host country's labour market conditions, and the degree of the unregistered economy.

3.1. Economic Impacts: Europe

The economic impacts of irregular migration in Europe are debated. On one side, irregular migrants help fill job gaps in low-paying areas like farming, construction, and domestic work. On the other side, many of these workers operate in the informal economy, which means their earnings go untaxed and unregulated. This can lead to a loss of tax income and social security funds for governments. A study by the European Commission shows that in some sectors, irregular migrants contribute between 7% and 16% to GDP growth, especially in countries like Italy, Spain, and Greece, where the informal economy is significant. However, having these migrants can also strain public services, including healthcare and housing, which are often paid for by taxpayers. (EU Commission. 2024).

3.2. Economic Impacts: United Kingdom

In the UK, the issue of irregular migration has become a highly politicized subject, especially in the wake of Brexit. Economic studies stress that due to some factors, businesses in some industries such as agriculture and hospitality tend to rely on irregular migrants to meet labor shortages (Walsh, 2020). These sectors have a high turn over of employees owing to lots of factors including issues immigration. But the informal nature of employment for most of them means that very few or none of them are law abide, do not pay tax contributions nor national insurance, and thus lost tax. According to the report of the UK Migration Advisory Committee, the economic costs associated with irregular migrants to the

country may range anywhere between £2 billion to £4 billion as a result of loss of potential taxation (UK Parliament, 2024).

3.3. Economic Impacts: Turkey

Turkey's role as a transit and host country for irregular migrants, particularly those fleeing the Syrian civil war, has significantly impacted its economy. While Turkey has taken in over 3.6 million Syrian refugees, many of whom have irregular status, their contribution to the Turkish economy is debated. In sectors such as agriculture and construction, irregular migrants have become essential due to labor shortages. The World Bank has reported that Syrian refugees contributed to a modest 1.6% increase in GDP in the short term (Kaya, 2023). However, the informal employment of migrants also worsens wage suppression for local workers, particularly in low-skill industries. Furthermore, irregular migrants place significant pressure on public services, such as education and healthcare, which are heavily subsidized by the Turkish government. The long-term economic impact remains uncertain, especially given the strains on infrastructure in cities, where migrant populations are most concentrated.

4. Social Impacts of Irregular Immigration

The complex dynamics of illegal border crossing have grown into a problem that affects not only the UK and the EU but also Turkey in its way. Each of the regions is confronted by a different set of issues interrelated with illegal migration for example. The rate at which small boats carrying these immigrants from France to the UK has been increasing has aggravated the problematic feelings that the public has regarding migrants, which is creating both pessimistic and optimistic views of the migrants. In Turkey where people cross the borders in their millions, especially from countries such as Syria and those in its vicinity leading to a problem of cultural integration and social service provision. All these regions have besides other problems posed by irregular migration, the integrations in this instance challenge the social standing and permeability of migration, as well as the public welfare systems, hence calling for better and more responsive migration solutions.

4.1. Social Impacts: Europe

The social impacts of irregular migration in Europe are complex and multifaceted. On the one hand, migrants have been instrumental in addressing demographic imbalances, particularly in countries with aging populations such as Germany and Italy. Migrants often provide essential labor that supports public services and the care economy. On the other hand, irregular migrants has also generated social tensions, particularly in countries with rising nationalist movements (Chappell, et al, 2011; Triandafyllidou, Spencer, 2020).

The social implications of irregular migration in European countries are intricate and have multiple dimensions in that they relate to the state of social cohesion, public attitudes, and the usage of public goods, among other concerns. In most cases, 'Irregular' migration generates demands for and appreciation for diverse cultures which in turn creates difficulty in social integration within communities and out of these extreme conditions – some communities tend to be built (Castles & Miller, 2009). Empirical evidence shows that within this discourse, the exposure of the local population to high levels of undocumented migration creates an escalated argument about national sovereignty, identity politics and burden – as well as crossing humanitarian debate (Boswell, 2011; Triandafyllidou, 2014). Issues such as integration, social exclusion, and crime have been at the forefront of public discourse, with certain segments of the population expressing concerns about cultural change in radical.

4.2. Social Impact: United Kingdom

In the UK, irregular migration has similarly polarized public opinion. While many migrants integrate into their local communities and contribute to society, they also face discrimination and hostility. Studies show that irregular migrants are more vulnerable to exploitation, often living in overcrowded housing conditions and facing barriers to accessing education and healthcare. The UK government has been criticized for creating a "hostile environment" that limits migrants' access to essential services, which further marginalizes them (Walsh, 2020). This policy has had unintended social consequences, fostering mistrust between immigrant communities and the government (Demireva, 2019). Irregular migrants are often socially excluded due to the insecurity of their legal status, leading to difficulties in accessing social opportunities such as healthcare, education and even employment. Research has shown that such a position at the periphery of society has often created an absence of trust even among the so-called socialized inward groups and their relations with others outside that circle (Zetter, 2018). Further, concerns regarding increased rates of irregular immigration in society have also been associated to fears of national security and pressure placed on already existing public resources leading to conflict and negative attitudes (Chauvin & Garcés-Mascareñas, 2019). In turn, the social effects caused by irregular immigration are very complicated, which requires addressing these problems in a complex and flexible manner in the policies promoting inclusiveness and addressing public fears.

4.3. Social Impacts: Turkey

In Turkey, the social impact of irregular migration, particularly from Syria, is profound. Migrants, particularly those in an irregular situation, often live in urban slums or informal settlements. This has led to overcrowded conditions and strained local infrastructure. Despite these challenges, many Turkish citizens have shown solidarity with the refugees, particularly in the early years of the Syrian crisis. As the number of migrants has grown in Turkey, public sentiment has shifted, with rising xenophobia and concerns about job competition. A 2021 survey indicated that 59% of Turks believe that irregular migrants have negatively impacted social cohesion (World Bank, 2021). Irregular migration and the presence of migrants, especially refugees, have played a role in deeply changing the social and economic landscape within Turkey. In this regard, one of the main points animated by increasing tension is the presence of Syrian refugees, who have been hosted in Turkey since the onset of the Syrian civil war. Turkey's initial open-door policy allowed many Syrians to escape conflict and secure refuge. But with time, and consequent increases in the number of refugees present, public sentiment went through a variety of changes. Most Turkish citizens voiced great concerns about the social strain posed by so many refugees coming in, especially in urbanized sectors. This has also been coupled with rising economic factors and political polarization. Refugees have been able to add diversity to local economies in labor-intensive economic sectors; however, tensions over resource and job competition have arisen, fueled by the awareness that refugees seem to put stress on public services. Besides these, the cultural and sectarian contrasts between the refugees, who often have a more conservative religious background, and host communities left many divisions on social grounds (Hoffmann and Samuk, 2020).

5. Taxation Impacts of Irregular Immigration

The direct impacts of irregular immigration on taxation are a critical concern for host countries and the migrants themselves, with ramifications on public finances, economic stability, and social services. The benefits from irregular immigration often arise from filling labor shortages, while the challenges have to do with providing taxation and hence funding various sectors.

5.1. Taxation Impacts: Europe

One of the most significant challenges posed by irregular migration in Europe is the issue of taxation. As irregular migrants often work in the informal economy, they do not contribute directly to tax revenues. This has significant implications for welfare states, which rely on contributions from all workers to maintain public services (Chappell, et al, 2011). At the same time, irregular migrants still consume public resources, such as healthcare and education, which creates a net fiscal burden. A report by the OECD indicated that the cost of providing services to irregular migrants in Europe exceeds the taxes that they might indirectly contribute through consumption taxes such as VAT. The taxation implications of irregular migration into the European Union have been widely debated, especially concerning its short- and long-term economic impacts: irregular migrants tend to work in the informal economy, and while contributing to economic activity, they are usually not subject to taxation or social security contribution, which means that their entries into the formal tax system are limited (OECD, 2021). Other studies claim that irregular migrants may also contribute to revenue indirectly, as they consume and generate demand for services. They may, however, remain relatively less known and difficult to measure (European Commission, 2020).

The administration and enforcement costs associated with the surveillance of undocumented workers are important challenges that further exacerbate the taxation conundrum posed by irregular migration. Governments incur high policing costs meant for blocking irregular immigration activities. Some scholars argue, however, that the economic cost of irregular migration has been overstated, buttressing their premise with studies demonstrating that irregular migrants also tend to make other economic contributions such as lowering the cost of labour, benefitting the employer and consumers alike (Zettelmeier, 2021).

5.2. Taxation Impacts: United Kingdom

In the UK, illegal migration has a significant impact on finances, especially in the areas of taxes and law enforcement. Although irregular emigrants are ordinarily not considered for public welfare schemes such as accommodation and improvement of the social housing system, they are still subject to indirect taxes, especially VAT. Nevertheless, their lack of active participation in the official labour market implies a lack of contribution in terms of income tax or national insurance, which results in their non-payment of funds to the public treasury. It has been stated that the enforcement of the immigration law would cost £482 million (Home Office, 2024) in 2023; this would include the costs of detention, deportation, and border security. Those budgets help to arrest and deport illegal immigrants, guard against illegal jobs, and maintain immigration-related infrastructure. However, irregular migrants also act as the indirect contributors to the economy, which occurs primarily through consumption, capable of working in informal sectors such as agriculture, construction, and hospitality (OECD, 2020).

The added expenditures that irregular immigration brings to the budget also arise due to the need for additional enforcement measures. They include inspections and judicial procedures that are intended to efficiently manage the problem of illegal migrants and significant public funds are allocated to detention facilities, deportation procedures, and return programs. While deportation and returns may have faced integrity issues due to political and logistical problems, the maintenance of such programs still represents a large financial burden on the UK government (Home Office, 2024).

5.3. Taxation Impacts: Turkey

Turkey is facing big issues regarding the taxation results caused by irregular migration. The majority of them are employed in the informal sector, which corresponds to them not being subjected to pay income tax and making social security contributions. Consequently, significant financial gaps take place,

especially because the government spends money on treating ailing ones, implementing the education system, and ensuring access to other social services for immigrants (European Commission, 2021; OECD, 2021). Although irregular migrants contribute to the economy through their consumer spending, it is not possible to deny the fact that the government's finances are significantly affected by public expenditures for such migrant policies. In addition, the situation in Turkey, which hosts a large number of refugees from Syria, is further burdening public services and thereby aggravating the fiscal control problem (IMF, 2021).

6. Conclusion

The economic, social, and taxation impacts of irregular migration in Europe, the UK, and Turkey are multifaceted and require nuanced policy responses. Economically, irregular migrants provide vital labour in sectors that often face shortages, but their informal status limits their tax contributions, creating fiscal gaps for host countries. In the UK and Europe, the reliance on irregular migrants to support industries like agriculture and hospitality underscores the importance of their contribution to the economy. These migrants however do not contribute to the formal taxation system but further pressure on other public service provisions. Turkey, as both a major transit and host country to irregular migrants, is faced with serious fiscal challenges due to its huge refugee settlement from Syria. Socially, irregular migration has worsened problems of integration; tension is created between the communities of host countries, more so when the migrants are seen as intruding on opportunities for jobs and resources. The increase in xenophobia and the creation of rifts within communities are evidence of the complexity that surrounds irregular migration management in the three regions. Therefore, administrative reforms should put in place policies that will enable the legalization of the workforce, enhance integration efforts, and correct disparities in resource distribution to mitigate negative outcomes and sustain social cohesion in the long run.

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ANA MARIA QUARESMA¹ AND SANDRA RIBEIRO²

H-H (HERFINDAHL-HIRSCHMAN) INDEX AND THE NATIONALITY OF THE MAJOR SHAREHOLDERS: AN OVERVIEW OF THE PSI

Abstract

The concentration of voting power in listed companies is an important issue in the context of Corporate Governance, as it can influence decision-making and the strategic direction of the company in various ways, both in terms of control and decision-making, and in influencing long-term strategies that will influence the company's performance and the perception of transparency to the market and investor confidence. In a first approach, this work verifies this concentration of capital owned by the three main reference shareholders using the H-H Index calculated for the 16 companies that make up the PSI (Euronext Lisbon Index). It was possible to conclude that the companies that make up the PSI have very concentrated capital, with only 2 companies having an H-H index below 35% and 9 an index above 51%. The nationalities of the shareholders that make up the H-H index were also analysed and it was found that it is the companies with a greater dispersion of capital that have a greater participation of foreign shareholders and that, conversely, the companies with a greater concentration of capital are those with a greater participation of Portuguese shareholders. Based on the H-H Index, there are 3 companies that only have 1 shareholder with a qualifying holding and their nationality is Portuguese. Conversely, among the companies with the most dispersed capital, 3 companies have 100% foreign capital among the 3 main shareholders, 2 from the Energy sector (largest participation of Chinese, but also Spanish and North American nationality) and 1 from the financial sector (largest participation of Chinese, but also Angolan nationality). When among the 3 largest reference shareholders there are 100% non-resident shareholders, their nationality is mostly Chinese. Understanding how control is exercised allows managers to anticipate shareholder interest, mitigate potential conflicts and create a more balanced management. This knowledge also helps to build a strategy that caters for all types of shareholders, maximising value for all stakeholders

Keywords: Corporate governance, Herfindahl-Hirschman Index, PSI

JEL Codes: M16

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1. Introduction

The concentration of voting power in listed companies is an important issue in the context of Corporate Governance, as it can influence decision-making and the strategic direction of the company in various ways, both in terms of control and decision-making, and in influencing long-term strategies that will influence the company's performance and the perception of transparency to the market and investor confidence.

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There are several studies that show that the concentration of ownership results in a better performance of organizations and that the participation of foreign shareholders in the share capital of organizations also translates into better performance.

This is an introductory study where an analysis of the concentration of ownership of PSI companies is made, analyzed through the H-H Index, for later observation of their nationality and thus verify the participation of foreign shareholders, as reference shareholders, in the companies that are part of the Portuguese Stock Exchange Index -PSI.

The objective of this study is first to understand the concentration of ownership of companies listed on the PSI, through H-Index, and identify the nationality of the reference shareholders and try to understand how those listed on the national Market Index are, in a certain way, commanded by national or foreign shareholders.

In summary, in this exploratory study it is intended to make a first approach to understand, in the companies that are part of the PSI, what is the concentration of voting power and what is the participation of reference shareholders with non-Portuguese nationality for the development of a future study that verifies these conditions relating them to the financial performance of these companies.

2. Theoretical Fundamentals

Allowing to the Agency Theory, the separation between ownership and management translates into agency costs that negatively influence the value of the company. Higher costs of monitorization of management can be associated to dispersed property. Concentrated ownership provides an appropriate incentive for the largest shareholders to supervise management. Their greater voting power permits them to influence the composition of the board of directors and their decisions.

Corroborating previous studies (Berle & Means (1932); Shleifer & Vishny (1997); Claessens et al (2002); La Porta et al. (2000) Lemmon & Lins (2003); Durnev & Kim (2005); Aggrawal et al (2009); Alimehmeti & Paletta (2012); Miralles-Quirós & Lisbon (2013); Zakaria, Purhanudin & Palanimally (2014); Oluwagbemiga, Michael & Zaccheaus (2014), concentrated ownership results in better performance of companies. Reviews of multiple studies have shown that concentrated ownership can encourage management to focus on shareholder welfare, thereby improving firm performance. This is supported by theories from notable economists like Fama & Jensen (1983) and Shleifer & Vishny (1993),

Foreign shareholders have good resources and governance, but focus on short-term investments, focus on liquidity, and attempt to maximize the market value of the shares (O'Sullivan, 2001; Aguilera & Jackson, 2003). Foreign strategic investors invest in domestic firms to dominate operating activities, help businesses access new markets, supplement capital, manage human resources and reduce production costs. Their ability makes it easier for domestic firms to access technological, management, and financial resources (Lee, 2008; Farrar, 2021). Therefore, businesses with foreign shareholders have higher performance.

There have been many empirical studies observing the relationship between foreign ownership and corporate performance. This relation has been examined in different contexts. Harris (2002) and Harris and Robinson (2003) find that foreign-owned companies in the United Kingdom have greater productivity than domestic-owned companies. Ferreira and Matos (2008) show that foreign institutional investors have a positive effect on a firm's operating performance and firm value. Aggarwal et al. (2011) also finds a positive effect of foreign institutional ownership on firm value. Hai et al. (2018) report that foreign shareholdings can reduce firms' agency costs and cost of equity and improve firm performance.

Overall, the studies suggest, in general, there is a positive relation between foreign ownership and firm performance.

3. Methodology

The methodology used reflects bibliographic research, the analysis of corporate governance reports to obtain statistical data and their treatment was made through *EXCEL*. All data reports are related to 23/12/31.

The sample was composed of all the PSI 16 companies. PSI is the Portuguese Stock Exchange Index. The figure below shows the sample composition.

Figure 1. Sample Composition

COMPANY	ISIN CODE
ALTRI SGPS	PTALT0AE0002
B.COM.PORTUGUÊS	PTBCP0AM0015
CORTICEIRA AMORIM	PTCOR0AE0006
CTT CORREIOS PORTUGAL	PTCTT0AM0001
EDP	PTEDP0AM0009
EDP RENOVAVEIS	ES0127797019
GALP ENERGIA	PTGAL0AM0009
GREENVOLT	PTGNV0AM0001
IBERSOL SGPS	PTIBS0AM0008
J.MARTINS SGPS	PTJMT0AE0001
MOTA ENGIL	PTMEN0AE0005
NOS SGPS	PTZON0AM0006
REN	PTRELOAM0008
SEMAPA	PTSEM0AM0004
SONAE	PTSON0AM0001
THE NAVIGATOR COMPANY	PTPTI0AM0006

Source: Made by the Authors consulting www.euronext.com.

All the data were obtained by consulting the Corporate Governance Report for each of the 16 companies at the end of the year 2023 (published in 2024 after the annual general meeting and available on the company's web site/Investors Information).

This work verifies the **concentration of capital owned** by the three main reference shareholders using the **H-H Index** calculated for the 16 companies that make up the PSI (Euronext Lisbon Index).

$$H-H = \sum_{i=1}^3 \left(\frac{P_i}{P}\right)^2 \times 100$$

$i = 1$ → Number of shares holding by the 1st shareholder with a qualified participation

$i = 2$ → Number of shares holding by the 2nd shareholder with a qualified participation

$i = 3$ → Number of shares holding by the 3rd shareholder with a qualified participation;

P = Total of shares issued

Concerning the verification of the **nationality of the shareholders**, the data were obtained analyzing the shareholders integrated in H-H Index observing their nationality.

4. Results

After collected the percentage of capital social owned by the three major shareholders (the H-H Index shows the following results (Figure 2).

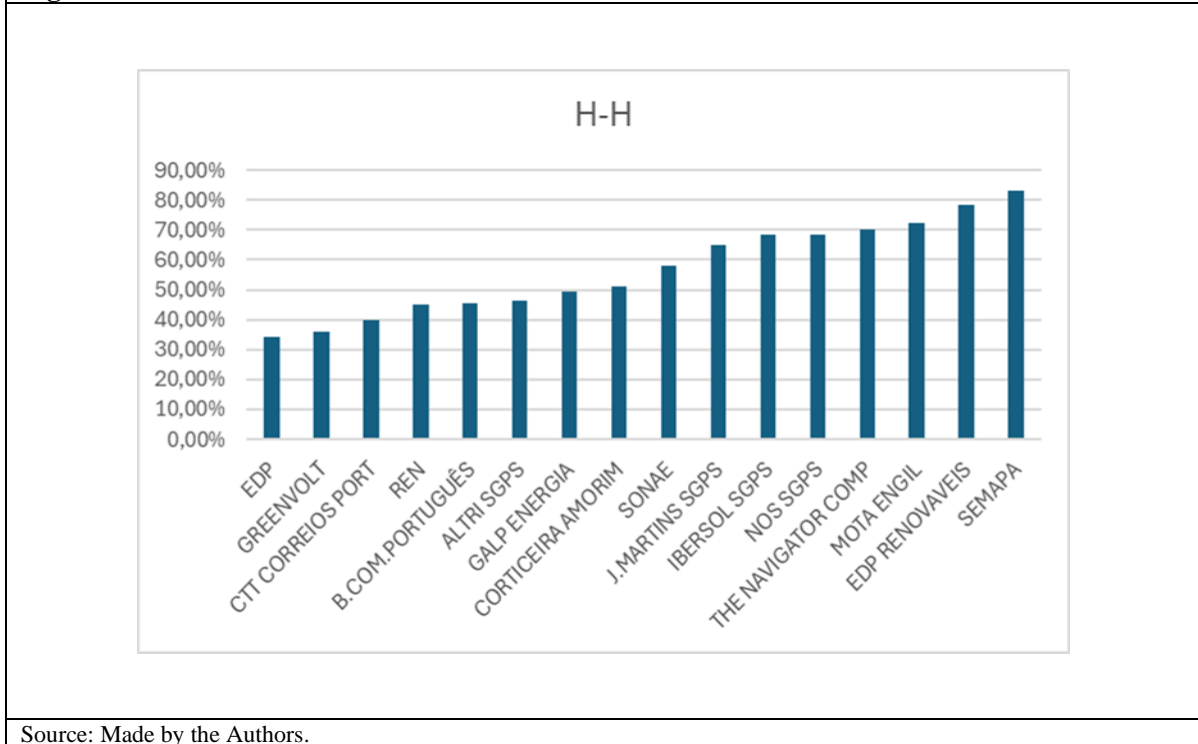
Figure 2. H.H Index Values

COMPANY	H-H
EDP	34,23%
GREENVOLT	35,79%
CTT CORREIOS PORT	39,62%
REN	45,20%
B.COM.PORTUGUÊS	45,48%
ALTRI SGPS	46,50%
GALP ENERGIA	49,24%
CORTICEIRA AMORIM	51,00%
SONAE	58,00%
J.MARTINS SGPS	64,80%
IBERSOL SGPS	68,32%
NOS SGPS	68,44%
THE NAVIGATOR COMP	70,00%
MOTA ENGIL	72,51%
EDP RENOVAVEIS	78,43%
SEMAPA	83,22%

Source: Made by the Authors.

Concerning the H-H Index it is possible to see that all the companies of the PSI have a concentrated capital owned by the 3 major shareholders. The minimum of concentration is 34,23% and the maximum is 83,22% (Figure 3).

Figure 3. H-H Index



The H-H Index can be built by a minimum of 1 shareholder and a maximum of 3. It was found that of the 16 companies, 3 only have one shareholder with a qualifying holding and consequently only 1 shareholder is part of the H-H Index, 4 of the 16 can only be considered 2 shareholders in the H-H Index and the remaining 9 companies have at least 3 shareholders with qualifying holdings.

The companies that had only one shareholder with a qualified participation also had 100% of Portuguese shareholders nationality. The companies that had 100% of foreign shareholders all had 2 or 3 qualified participations according to H-H Index (see Figure 4).








Figure 4. H-H Index /Shareholders Nationality

COMPANY	ISIN	H-H	PARTICIPATE QUALIFICATIONS	SHAREHOLDER NATIONALITY	
				PORTUGUESE	FOREIGN
EDP	PTEDP0AM0009	34,23%	3	0,00%	100,00%
GREENVOLT	PTGNV0AM0001	35,79%	3	100,00%	0,00%
CTT CORREIOS PORT	PTCTT0AM0001	39,62%	3	59,17%	40,83%
REN	PTRELOAM0008	45,20%	3	0,00%	100,00%
B.COM.PORTUGUÊS	PTBCP0AM0015	45,48%	2	0,00%	100,00%
ALTRI SGPS	PTALT0AE0002	46,50%	3	100,00%	0,00%
GALP ENERGIA	PTGALOAM0009	49,24%	3	88,93%	11,07%
CORTICEIRA AMORIM	PTCOR0AE0006	51,00%	1	100,00%	0,00%
SONAE	PTSON0AM0001	58,00%	2	91,40%	8,40%
J.MARTINS SGPS	PTJMT0AE0001	64,80%	3	94,30%	5,70%
IBERSOL SGPS	PTIBS0AM0008	68,32%	3	89,88%	10,12%
NOS SGPS	PTZON0AM0006	68,44%	3	92,70%	7,30%
THE NAVIGATOR COMP	PTPTI0AM0006	70,00%	1	100,00%	0,00%
MOTA ENGIL	PTMEN0AE0005	72,51%	2	55,30%	44,70%
EDP RENOVAVEIS	ES0127797019	78,43%	2	90,57%	9,43%
SEMAPA	PTSEM0AM0004	83,22%	1	100,00%	0,00%

Source: Made by the Authors

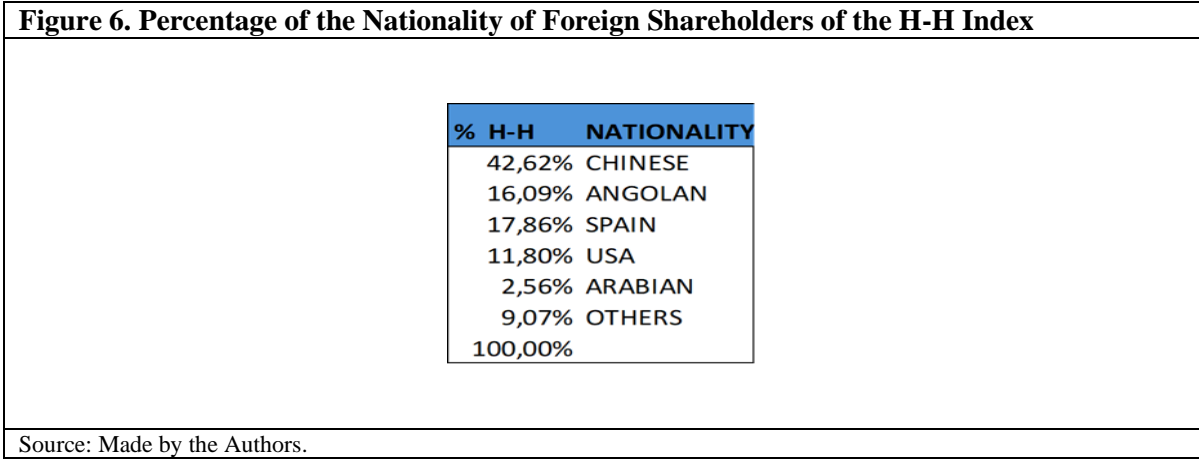
The Figure below shows the breakdown of the H-H Index by the nationality of the shareholder. Considering the H-H Index, only 3 of the 16 companies in the PSI have 100% of this index composed of only foreign shareholders and 3 companies with 100% of the H-H index composed of only shareholders of Portuguese nationality.

Figure 5. Nationality of Foreign Shareholders of the H-H Index

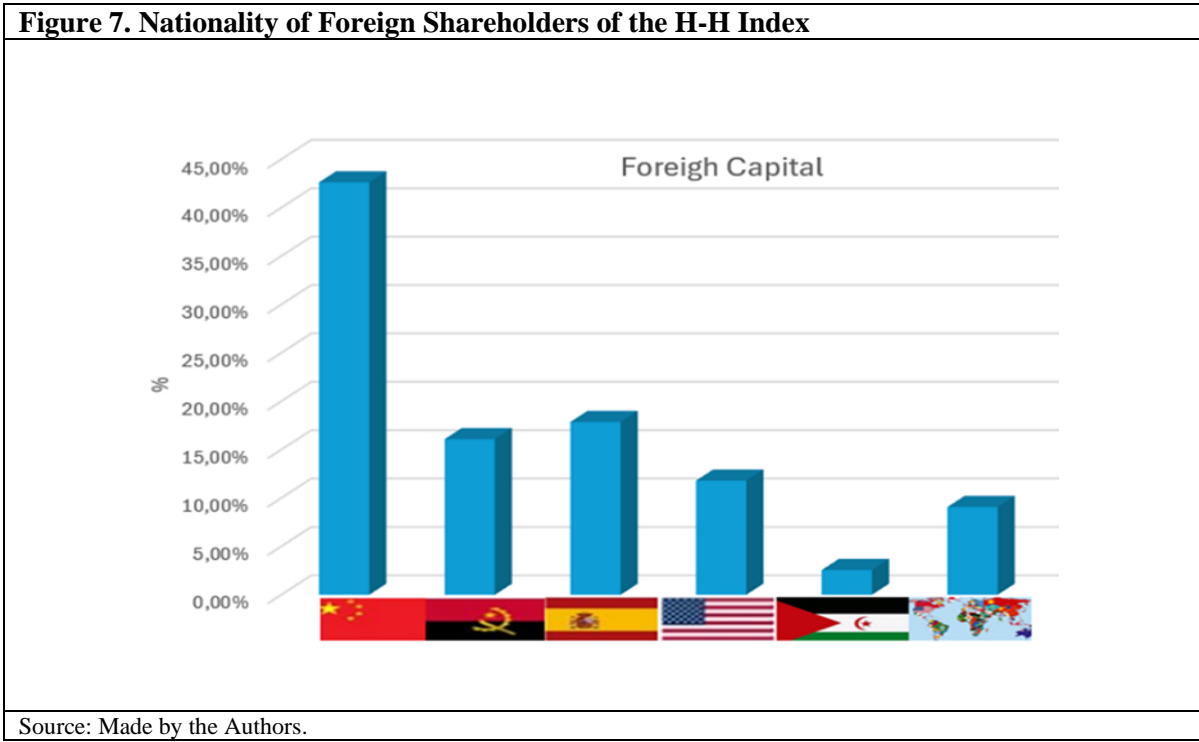
								H-H
	Port.	Chinese	Angolan	Spain	EUA	Arábic	Others	H-H
ALTRI SGPS	46,50%							46,50%
B.COM.PORTUGUÊS		25,99%	19,49%					45,48%
CORTICEIRA AMORIM	51,00%							51,00%
CTT CORREIOS PORT	14,26%			15,61%			9,75%	39,62%
EDP		21,08%		6,82%	6,33%			34,23%
EDP RENOVAVEIS	71,03%				3,10%		4,30%	78,43%
GALP ENERGIA	43,79%				5,45%			49,24%
GREENVOLT	35,79%							35,79%
IBERSOL SGPS	61,40%			6,92%				68,32%
J.MARTINS SGPS	61,10%						3,70%	64,80%
MOTA ENGIL	40,10%	32,41%						72,51%
NOS SGPS	63,44%					5,00%		68,44%
REN		25,00%	12,00%		8,20%			45,20%
SEMAPA	83,22%							83,22%
SONAE	53,00%			5,00%				58,00%
THE NAVIGATOR COMP	70,00%							70,00%

Source: Made by the Authors.

Regarding the shareholders that are part of the H-H Index and who, at the same time, have foreign nationality, there was a strong percentage of Chinese nationality (see Figure 6).



Considering the foreign shareholders that are part of the H-H Index of the PSI companies, the percentage of Chinese nationality is very high (42.62%) and excluding the Angolan, Spanish, North American and Arabian nationalities, the other nationalities have little weight in the total of foreign shareholders of the PSI (9.07%) – see Figure 7.

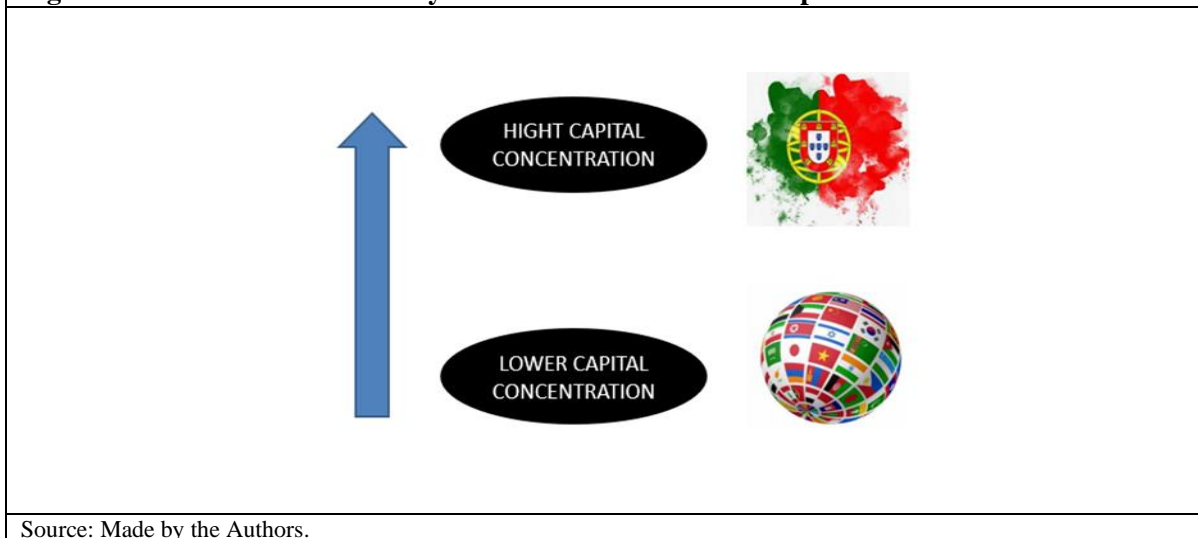


5. Final Considerations

From the overview made to the PSI, at the end of 2023, the focus of the analysis being the verification of the concentration of voting power of listed companies based on the results of the H-H Index. and observing the nationality of the shareholders that make up the referred Index, it was possible to extract some considerations about the PSI in relation to these facts.

The companies with a greater dispersion of the social capital have a greater participation of foreign shareholders and that, conversely, the companies with a greater concentration of capital are those with a greater participation of Portuguese shareholders (Figure 8).

Figure 8. Shareholder Nationality Versus Concentration of Capital



It has been observed that there is a **High Concentration of the Property on PSI listed Companies** This weak spraying of capital reveals the characteristic of the **European Corporate Governance Model** where there is a high concentration of capital (unlike in the Anglo-Saxon Model where capital spraying is one of its most distinctive characteristics).

In Portugal, there are no restrictions on the participation of foreign shareholders in the share capital of companies under the principle of non-discrimination of investment based on nationality.

From the study it is concluded that **foreign shareholders as a qualified participation on company capital.**

From this introductory study it is possible to predict that in a future study a better performance of companies listed on the PSI may be found, which has a higher concentration of shareholder ownership and also the future analysis, regarding the participation of foreign shareholders in the companies, may indicate a better performance, both corroborating previous studies.

If, on the one hand, foreign investment in Portuguese companies can have a beneficial effect on the company performance, on the other hand, the shareholder control conferred can change the strategic decisions of companies, particularly when their participation is manifested in sectors such as Energy and Banking. Should this be a situation that deserves reflection?

6. Limitations and Suggestions for Future Research

The separation between private and collective shareholders has not been made, so when it comes to a collective shareholder, the nationality analysis has limitations. Regarding qualified investors, such as securities investment funds, the portfolio includes participants of various nationalities and only the nationality of the qualified shareholder was considered. However, this limitation is difficult to overcome, as the shareholder in Portugal is the shareholder registered in the securities accounts, and the disclosure of the shareholder position is only required in certain corporate acts, such as general meetings, where segregated voting in a shareholder position is allowed.

As this is an introductory study, the main suggestion for a future analysis is to extend the analysis period to a time frame of at least 5 years. This study leaves open possible analyses related to the theme treated, such as: Verify the impact on the financial performance of PSI companies considering the H-H Index; Verify the impact on the financial performance of PSI companies considering the nationality of the reference shareholders; To carry out a comparative study, on the above-mentioned contents, between the companies of the PSI and the companies that are part of the main stock market indices in Europe.

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SANDRA RIBEIRO¹ AND ANA MARIA QUARESMA²

CLOVER MODEL: MEASURE THE STATUS OF PLANET GOVERNANCE

Abstract

"Planet Governance" identifies how governments manage, on the principles of equity, transparency, alignment of interests and responsibility, their economic resources for the sustainability of the planet with a positive impact on the country's economic performance". The European Green Deal is a crucial initiative of the European Union with the aim of transforming the European economy and society to address the challenges of climate change and environmental degradation. These actions are essential to ensure a sustainable and prosperous future for Europe.

This article aims to relate the concept of Planet Governance with one of the five basic principles of the SDG goals, related to the Planet, with a view to the theoretical design of a model, called Clover Model, This model will integrate the 12 SDGs that are associated with the European Green Deal (2- eradicate hunger; 3- quality health; 6- drinking water and sanitation; 7- renewable and affordable energy; 8- decent work and economic growth; 9 – industry, innovation and infrastructure; 10 - Reduce inequalities; 11- Sustainable cities and communities; 12 – sustainable production and consumption; 13 – Climate Action; 14 – Protect marine life and 15 – Protect terrestrial life) distributed by the 4 dimensions encompassed in the model - clover leaves: oceans, atmosphere, soils and sustainable life.

The model will reflect the state of each member state in terms of Planet Governance and will allow to verify in which of the 4 dimensions that make up the proposed model the state has a better or worse performance, allowing a more particular view of the global assessment of the SDGs that are part of the European Green Deal.

Keywords: Planet governance, European Green Deal, SDG

JEL Codes: M16

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1. Introduction

In the face of the unprecedented challenges posed by climate change, environmental degradation, and socioeconomic inequalities, the concept of Planet Governance has emerged as a critical framework for addressing these complex, interrelated issues. The Sustainable Development Goals provide a comprehensive roadmap for achieving a more sustainable and equitable future, and the European Green Deal, as a key policy initiative, offers a concrete pathway for aligning regional efforts with the global sustainability agenda. (Cifuentes-Faura, 2022)

Good Corporate Governance Practices are pillars of company success. The authors developed the concept of Planet Governance, and similarly to Corporate Governance, it becomes essential for states to apply it well. According to Ribeiro and Quaresma (2022) "Planet Governance identifies the way

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governments manage, on the principles of equity, transparency, alignment of interests and accountability, their economic resources of sustainability of the planet with a positive impact on the economic performance of the country.”

How to measure good or bad Planet Governance?

The European Green Deal is the European Union’s ambitious plan to make Europe the first climate-neutral continent by 2050. This comprehensive strategy aims to transform the EU into a modern, resource-efficient, competitive economy while addressing climate change and environmental degradation. Good Planet Governance will be necessary to achieve this objective.

This research paper aims to explore the potential of the Clover Model. This theoretical design integrates the 12 Sustainable Development Goals associated with the European Green Deal, as a tool for advancing Planet Governance. The Clover Model distributes these 12 SDGs across four dimensions – oceans, atmosphere, soils, and sustainable life – creating a holistic and integrated approach to addressing sustainability’s environmental, social, and economic aspects.

This article aims to relate the concept of Planet Governance with one of the five basic principles of the SDG goals, related to the Planet, with a view to the theoretical design of a model, called Clover Model.

2. Theoretical Fundamentals

The effects of industrialization and globalization are undeniable. Although these phenomena have had a positive impact on societies' livelihoods, their social dependence and impact on natural resources have considerably increased global concerns about this transition.

The privileging of capital and market mechanisms over state authority has created governance gaps, leading to a divergence of views on how to define and implement global governance. (Jang et al., 2016) Some scholars argue that global governance as it is currently practiced is not working, while others believe that it is constantly adapting to new challenges. (Jang et al., 2016) Regardless of these differing perspectives, there is a consensus that the status of planet governance must be measured to identify areas for improvement and ensure a more equitable and sustainable future.

According to Sachs et al. (2022) in September 2015, the states of the United Nations agreed to adopt Transforming the World: the 2030 Agenda for Sustainable Development. It is a universal activity strategy for global support on sustainable development from 2015 to 2030. The focal target of the S.D.G. is not to leave anyone behind in the planet’s developmental approach consisting of 169 targets mentioned in 17 sustainable development goals (Ghorbani, 2020).

Consequently, the United Nations adopted the SDGs in 2015 which is a universal proposition call to end global poverty and defend the planet and safeguard that everyone enjoys peace and prosperity by the year 2030. The United Nations. adopts 17 SDGs, and all of them have been integrated so that the world can be achieved ample development by 2030 (Ghorbani, 2020).

Here are the 17 SDGs: 1. No Poverty: End poverty in all its forms everywhere; 2. Zero Hunger: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture; 3. Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages; 4. Quality Education: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; 5. Gender Equality: Achieve gender equality and empower all women and girls; 6. Clean Water and Sanitation: Ensure availability and sustainable management of water and sanitation for all; 7. Affordable and Clean Energy: Ensure access to affordable, reliable, sustainable, and modern energy for

all; 8. Decent Work and Economic Growth: Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all; 9. Industry, Innovation, and Infrastructure: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation; 10. Reduced Inequalities: Reduce inequality within and among countries; 11. Sustainable Cities and Communities: Make cities and human settlements inclusive, safe, resilient, and sustainable; 12. Responsible Consumption and Production: Ensure sustainable consumption and production patterns; 13. Climate Action: Take urgent action to combat climate change and its impacts; 14. Life Below Water: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development; 15. Life on Land: Protect, restore, and promote sustainable use of terrestrial ecosystems, manage forests sustainably, combat desertification, and halt and reverse land degradation and biodiversity loss; 16. Peace, Justice, and Strong Institutions: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels; 17. Partnerships for the Goals: Strengthen the means of implementation and revitalize the global partnership for sustainable development (United Nations, 2015)

These global goals (ODG's) assumed by the 193 countries of the United Nations have the ambition to "leave no one behind", through the establishment of a common language for all stakeholders, set sustainability goals, focus on areas critical to humanity, and are structured around **5 Principles: Planet, People, Prosperity, Peace and Partnerships** (United Nations, 2020).



The SDG indicators, prioritized by the European Commission, related to the European Green Deal are 12 (see figure) and will be the ones we will use to measure the level of Planet Governance of each member state through the model presented in this study – Clover Model.



The European Union's policies and initiatives have played a pivotal role in combating climate change and promoting sustainable development over the years (Cifuentes-Faura, 2022). The European Green Deal, in particular, represents a significant step towards a more circular and resource-efficient economy, aligning with the pursuit of many aspects of sustainable development and the associated SDG targets. (Ronzon & Sanjuán, 2019) (Gottardo et al., 2021) The emphasis on green investments, environmentally friendly technologies, biodiversity restoration, and pollution reduction within the European Green Deal provides a solid foundation for the Clover Model's integrated approach to Planet Governance.

The interplay between the Sustainable Development Goals and the bioeconomy concept has been a subject of growing interest, as the bioeconomy has been recognized as a potential pathway for addressing various aspects of sustainable development (Ronzon & Sanjuán, 2019). Policies aimed at preventing trade-offs and promoting synergies between the SDGs and the bioeconomy are already in place, but further progress is needed to overcome the observed antagonisms (Ronzon & Sanjuán, 2019).

However, the translation of this vision into effective policy and action has proved to be a complex challenge, requiring a comprehensive understanding of the interplay between governance structures and sustainability (Kemp et al., 2005).

One key element of this relationship is the recognition that sustainability is a socially instituted process of adaptive change, wherein innovation plays a crucial role. (Kemp et al., 2005) This perspective suggests that governance for sustainability must be flexible, responsive, and capable of facilitating the continuous evolution of policies and practices to address emerging challenges. Additionally, the concept of transition management, which involves the integration of four key elements of governance for sustainability, provides a framework for policy-making and action-taking aimed at progress towards sustainability (Kemp et al., 2005).

The literature on sustainability governance further emphasizes the importance of maintaining the legitimacy and trust of such governance systems. Concerns have been raised about the persistence of

unsustainable practices in various economic sectors, indicating the need for ongoing development, adjustment, and improvement of existing sustainability governance frameworks.

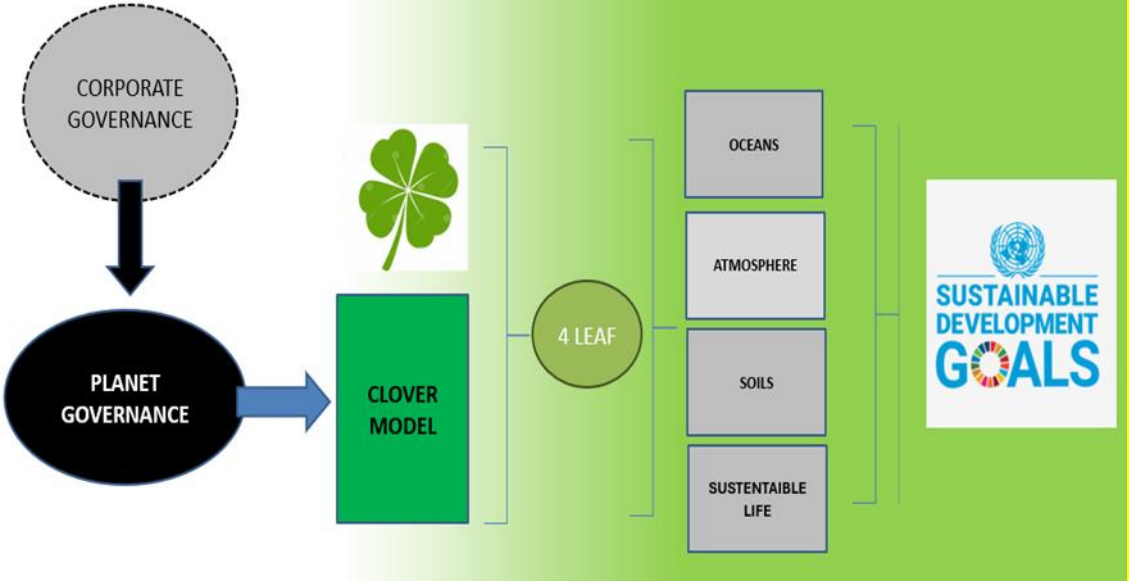
Ultimately, the theoretical foundations of global governance and sustainable development highlight the critical importance of adaptive, inclusive, and responsive governance structures that can navigate the complex and rapidly evolving landscape of sustainability challenges.

The Clover Model's integration of the 12 SDGs associated with the European Green Deal offers a promising framework for addressing these challenges. By aligning the environmental, social, and economic dimensions of sustainability, the Clover Model can serve as a guiding tool for policymakers, businesses, and civil society to collectively work towards a more sustainable and equitable future for our planet.

3. Clover Model – For Measure Planet Governance

In the face of pressing global challenges, such as climate change, biodiversity loss, and the depletion of natural resources, the need for effective planet governance has become increasingly apparent. The existing global governance system has been criticized for its inadequacies in addressing these critical issues, with failures to defend public goods, address inequality, and give voice to those most impacted (McKeon, 2016).

This model will integrate the 12 SDGs that the authors considered to measure a good level of Planet Governance (2 – eradicate hunger; 3 – quality health; 6 – drinking water and sanitation; 7 – renewable and affordable energy; 8 – decent work and economic growth; 9 – industry, innovation and infrastructure; 10 – Reduce inequalities; 11 – Sustainable cities and communities; 12 – sustainable production and consumption; 13 – Climate Action; 14 – Protect marine life and 15 – Protect terrestrial life) distributed by the 4 dimensions encompassed in the model - clover leaves: oceans, atmosphere, soils and sustainable life.



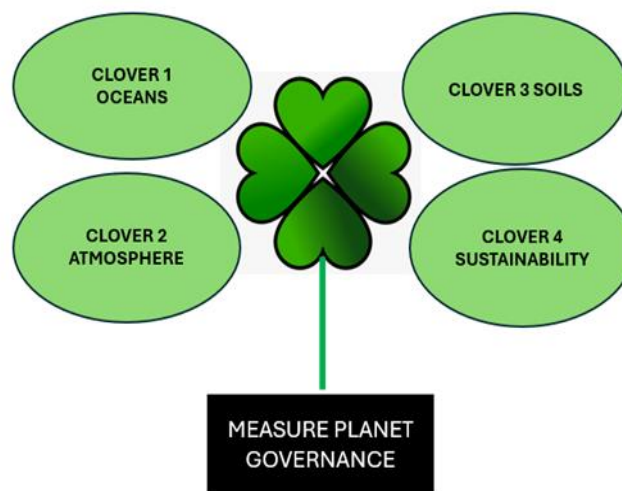
The 12 SDGs considered are distributed across each of the 4 dimensions considered in the model, grouped in each of its 4 leafs as follows:

In the "Oceans" dimension, the SDGs will be considered: SDG 6 – Clean Water and Sanitation and SDG 14 – Life Below Water.

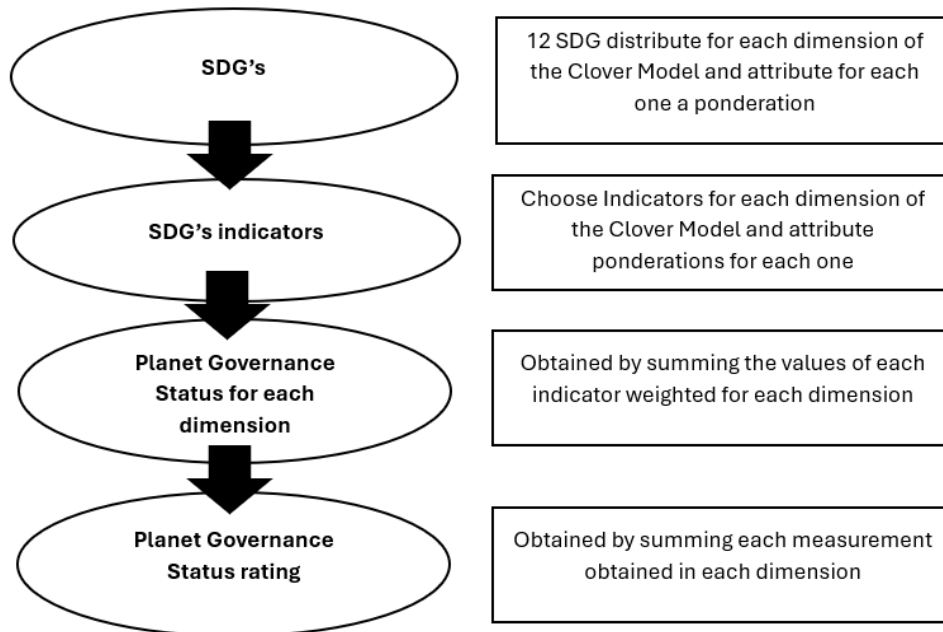
In the "Atmosphere" dimension, the SDGs will be considered: SDG 7 – Affordable and Clean Energy and SDG 13 – Climate Action.

In the "Soils" dimension, the SDGs will be considered: SDG 9 – Industry, Innovation and Infrastructure, SDG 12 – Responsible Consumption and Production and SDG 15 – Life on Land.

In the "Sustainability" dimension, the SDGs will be considered: SDG 2 – Zero Hunger, SDG 3 – Good Health and Well-Being, SDG 8 – Decent Work and Economic Growth, SDG 10 – Reduce Inequalities and SDG 11- Sustainable Cities and Communities.



To measure performance in each of the 4 dimensions of the clover model, indicators of each SDG will be identified, duly recognized by the United Nations (United Nations, 2024) and weights will be assigned to each one to enable the measurement of the degree of compliance in each dimension of the model by each member state and overall measure Planet Governance.



6. Final Considerations

The pursuit of sustainable development has become a paramount concern in the global arena, necessitating a thorough examination of the theoretical underpinnings of global governance (Scholte, 2020). Sustainable development, as defined by the United Nations, encompasses a multifaceted approach that integrates social, economic, and environmental considerations to ensure the well-being of present and future generations. (“Discussion Paper - Governance for Sustainable Development,” 2016) However, the translation of this vision into effective policy and action has proved to be a complex challenge, requiring a comprehensive understanding of the interplay between governance structures and sustainability (Kemp et al., 2005).

After measuring the degree of compliance with each SDG considered for the European Green Deal, and assessment of each country under analysis, in each of the 4 dimensions of the model, it is possible to measure the Planet Governance.

The model will reflect the state of each member state in terms of Planet Governance and will allow us to verify which of the 4 dimensions that make up the proposed model the state has a better or worse performance.

Allowing a more particular view of the global assessment of the SDGs that are part of the Principle of Substantially related to the Planet.

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