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Contents

Anti-Corruption Measures in Romanian Public Administration Reform

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Abstract. *Public administration reform in Romania remains a topical and interesting topic, with citizens interacting with this system throughout their lives. The consulted literature launches a challenge to the scientific community, in the idea of identifying the impact of anti-corruption measures in the reform of the Romanian public administration. Even if the improvement of the administrative system is made in relation to the evolution of technology, the requirements of the beneficiaries and examples of good practice, the paper will highlight the impediments encountered in implementing such measures in the context of an administration in a permanent reform after the collapse of the communist regime. his. The paper will also highlight the relationship between citizens and the administration in terms of implementing anti-corruption measures, aimed at increasing transparency and, at the same time, the satisfaction and trust of citizens towards the leaders and the services provided.*

Keywords: *quality of public services, transparency, integrity, civil service.*

JEL: D73, H83.

1. Introduction

Administrative reform is still a topic of interest even if it is frequently addressed in the literature, both nationally and abroad. The topicality of the subject is revealed by a permanent change of the tendencies that the society is facing. Of course, each state is at a different stage in terms of reforming the administration, especially in relation to the degree of development and technology it presents. What is certain, however, is that society and, implicitly, citizens and their needs are changing at an accelerated pace, and with them the expectations they have from the administrative system they come into contact with throughout their lives. From this point of view, the public administration must provide quality services, and in order to fulfil this desideratum it must keep up with the mentioned tendencies. This idea is also highlighted by the philosopher R. Drago (cited by Țurcan, 2016), who states that the public administration is in a permanent reform, an aspect considered as an indicator of its health.

The notion of corruption is difficult to define in a unitary way in view of its complexity, but conventionally it is appreciated as a particular behaviour of obtaining well-being by an actor of the state or of a public authority. Corruption is understood as the misuse of public resources by public authorities for personal gain. Thus, in the definitions of work used by the World Bank, Transparency International and other organizations, corruption is seen as an abuse of public power for private gain. Corruption is also seen as a transaction between both the private and public sector representatives to illegally turn collective goods into private goods, leading to the idea of corruption in public-private interference. (Popa, 2012, pp. 12-13)

In addition to these theories on corruption, it should not be overlooked that it is also found in private affairs and in non-governmental organizations, without the involvement of state representatives. This form of corruption can have significant negative effects on the overall economic and political development of a community. In fact, regardless of the form of the act of corruption, they have a detrimental impact on public morale in terms of undermining the trust in the rules established at the state level. (Popa, 2012, pp. 12-13)

Regarding the relationship between corruption and public administration, corruption is found both at the central and local level, and among its determining factors are the lack of a clear definition of responsibilities; confusion in separating administrative from political functions; lack of transparency regarding administrative procedures; lack of an adequate legal framework for the effective fight against corruption; the bureaucratic slowness found at the level of institutions with responsibilities in the fight against corruption. Civil servants, subject to acts of corruption in the administrative system, may be influenced to succumb to the temptation of corruption in terms of insecurity, difficulty in promotion, low level of financial compensation, privatization of certain services (leading to staff reductions, reorientation, search for new jobs, etc.), reducing the size of the administrative apparatus, constantly redefining the responsibilities of ministries and agencies. From this perspective, "corruption and lack of ethical standards in the civil service threaten the public administration in terms of strengthening the credibility of the civil service and democratic institutions in front of their own citizens and contribute to aggravating poverty and weakening the service system." (Popa, 2012, p. 26)

Thus, corruption involves "a set of immoral, illicit, illegal activities performed by individuals who exercise a public role or various groups and organizations, public or private, in order to obtain material, moral or higher social status, by using forms of coercion, blackmail, deception, bribery, buying or intimidation" (Dobrescu, Sima E. & Sima M., 2010, p. 261).

2. Public administration reform and anti-corruption measures

Peters B. Guy's Politics of Bureaucracy (2001, p. 136) highlighted the relationship between administrative reform and bureaucracy. From this perspective, measures are needed to quantify organizational performance, the administrative reform having as objective the formation of well-defined organizational structures, capable of implementing public programs. He also emphasizes in his paper that reforming the administration is a natural activity, but in order for that to not be doomed to failure it must take into account the traditions that its own system embodies. Thus, regardless of the quality of a model that would be transposed, in order to be successful, the reform must take place by adapting and individualizing it to the circumstances found in that territory.

If we look at the perspectives of Christopher Pollitt and Geert Bouckaert (2011, cited by Mihăilă, 2020), the reform involves deliberate actions for changing the structures and processes of public sector organizations for better functioning. Thus, the five components selected by the authors in relation to the administrative reform refer to: finance, human resources, organization and measurement of performance, transparency and open governance.

Although there are many perspectives on the notion of “administrative reform”, they share the need to improve the administrative system so that it is effective and efficient. A reformed administration in the spirit of the stated idea would generate an increase in confidence and in the degree of satisfaction of the citizens regarding the activity of the authorities that represent the administrative system (Mihăilă, 2020). Thus, the reforms aim to increase the quality of public administration.

Regarding the quality of the administrative system, from a certain perspective this can be reflected in the degree of bureaucracy, transparency, efficiency and corruption (Profiroiu A. & Profiroiu M., 2007, pp. 41-50). The European Commission (2016) analyzes in a study published in 2016 regarding the quality of administration the horizontal aspects of the functioning of public administration, such as: results and improvements in terms of accountability, policy development, structures and processes, human resources and service delivery. Issues related to the sustainability of public finances, corruption, the effectiveness of legal and tax systems and tax administration are considered related to governance issues and have been addressed in separate materials. Thus, the document states that the reforms that have taken place over the last two decades have led to some improvement in the cost-effectiveness and efficiency of the public administration, making the institutions more open and transparent. It has also been noted that both access and quality of their services have increased. An essential aspect is also the development of the employees’ potential in the public administration, whilst the recruitment based on clientelism criteria being a major problem encountered in several national systems, which can be a barrier in the process of improving the administration. From this perspective, the emphasis was on the fact that politicization and the absence of a meritocratic recruitment process in public administration favor corruption and undermine performance. In addition, the quality of public services is reflected in the level of trust of citizens in public administration, the ease with which economic activities can be carried out and the level of well-being of society. (European Commission, 2016)

The existence of allegations of corruption among the representatives of the administrative system leads to a shaking in the trust that the citizens have reported to it. Correlating this hypothesis with the idea of quality from the previous sentence, we can appreciate corruption as an indirect factor in determining the degree of quality of public services.

The performance of the administrative system in relation to anti-corruption measures is reflected both in its ability to develop prevention mechanisms, identify and combat forms of internal corruption, within the system, and forms of external corruption, those outside the system. Of course, there are also situations where the external environment appeals to people inside the system to succeed in its fraud, but an efficient administration must have the capacity to prevent such situations. If they eventually happen, the administration should be able to identify them in a timely manner, to take the necessary measures and to reduce or even eliminate the damage which would have resulted from the successful completion of that action.

Undoubtedly, the reform of administrations must consider the implementation of effective anti-corruption measures that will lead to the strengthening of integrity, ethics, transparency and accountability among the representatives of the administrative system.

3. The fight against corruption at European level

The European Commission (2017), in its Anti-Corruption Fact Sheet, mentions that corruption is an obstacle to economic growth, undermining the sustainability of public budgets and reducing investment funds. The costs of corruption to the EU economy are estimated at € 120 billion a year, roughly equal to the European Union's annual budget. In view of this, anti-corruption measures are essential for the sustainability of structural reforms. Among the recommended measures we find: the use of prevention policies; development of rigorous external and internal administrative verification mechanisms; declaration of assets and interests of officials; addressing conflicts of interest; effective protection of whistleblowers; investigation, prosecution and prosecution of corruption. (European Commission, 2017)

In terms of the business environment, the phenomenon of corruption can generate uncertainty and additional costs, the environment becoming unattractive for business and private investment, and competitiveness is declining. Corruption is also a discouraging factor for taxpayers to pay taxes, and all these effects are felt in public sector finances. Decreasing tax revenues leads to limited public sector investment capacity. (European Commission, 2017) In such a situation, we cannot discuss a high-performance and quality public administration.

On the other hand, it is appreciated that a high level of transparency and integrity in the public sector reduces the possibility of corruption-prone contexts, generating competitiveness, increased efficiency in tax collection and public spending, while promoting the strengthening of the rule of law. In addition, real political will is a condition for the success of national reforms with a long-term impact, which is why it is essential to raise awareness of corruption issues at the political level, prioritize resources to implement appropriate measures, set clear and tangible targets and generate climate in which political responsibility predominates. Corruption is a topic covered in the European Semester's reports and recommendations to support Member States, with the European Commission supporting members' reform efforts by publishing an EU Anti-Corruption Report and launching EU-wide workshops. (European Commission, 2017)

For an overview of corruption, indicators such as the Transparency International Index and the "Corruption Control" index used by the World Bank, along with five other indicators, are used to measure good governance. (European Commission, 2017)

4. The situation found in the Romanian space

In the case of Romania, which finds itself in the situation of a post-communist country in Eastern Europe, the transformations, that the administrative reform underwent in the immediate post-December period, aimed at major changes which were necessary to respond to the new requirements found in the world economy and adaptation. to the requirements imposed by the process of integration into the European Union and its representative structures. Thus, the reform of the administration involved substantial changes in the basic components of the public administration, be it central or local. With the establishment of democracy in Romania, the relationship between citizens and the administration developed new values, there was an increase and a strengthening of the role of the authorities, and the partnership with civil society and local elected officials was reconsidered. (Profiroiu, Andrei, Dincă & Crap, p. 4) Thus, Romania's accession to the European Union meant adapting the administration to the principles and good practices found at European level.

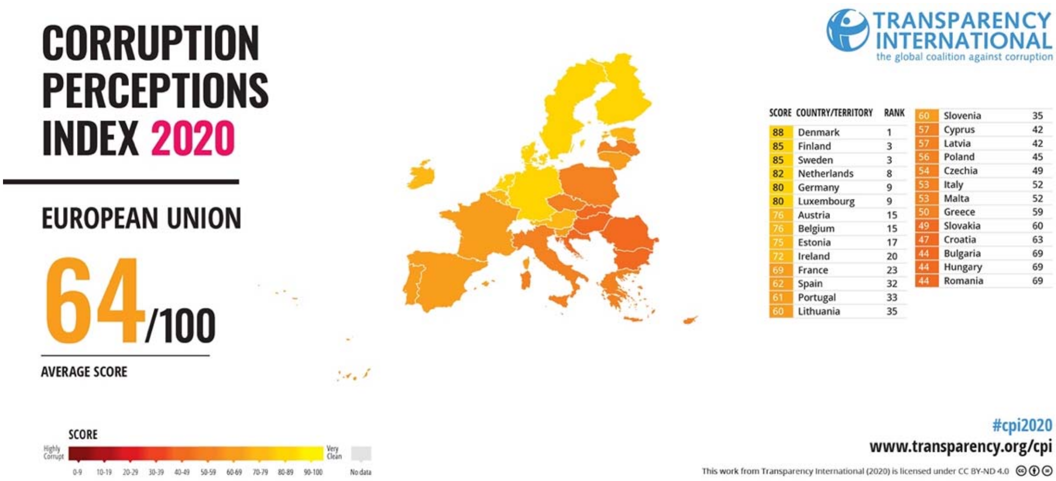
The study of the public administration reform in the context of European integration (Profiroiu, Andrei, Dincă & Crap, p. 48-49) highlighted in the first decade of the 2000s the extent to which they can be considered as sources of corruption in public administration in Romania: the legal framework; salary system; morality of civil servants; the pressure felt by the economic environment; the pressure of the political system; citizens' behavior. Thus, out of the six elements analyzed, the study showed the legal framework, the salary system and the pressure of the political system being the main determining factors in the occurrence of corruption. The morale of civil servants and the pressure from the economic environment have a lower weight than the first two, but not insignificant. Regarding the behavior of citizens, the study showed a moderate influence compared to the other five factors, and one can appreciate more an effect of corruption than a determining factor.

Given the fact that the source of law of the civil service in Romania is currently the Administrative Code, art. 5, point 26, letter y) defines the civil service as "the set of attributions and responsibilities, established under the law, for the purpose of exercising the prerogatives of public power by public authorities and institutions". Art. 368 letter e, defines the principle of impartiality and independence in the exercise of the function held by civil servants and contract staff in the public administration. This principle aims to have an objective and neutral attitude towards any interest other than the public one. Chapter V of the same mentioned normative act, second section, art. 431 (3) stipulates as a condition of professionalism and impartiality the exercise of the obligation to have a neutral attitude towards personal, political, economic, religious or any other interests and not to facilitate possible pressures or influences.

The reform of the administration in Romania also included the reform of the civil service. Thus, change management was developed prior to accession to the European Union, followed by a consolidation of the civil service system after accession. From this perspective, depoliticization involved the development of civil service management, the definition of an efficient bureaucracy and the implementation of the principles of impartiality, objectivity, transparency and accountability, resulting in the reduction of political corruption, diminishing and even eliminating the possibility of decision-making in favor of the ruling political class. EU Member States focus on developing the conduct of civil servants to prevent and combat corruption. The first document of this type was adopted in Romania by law no. 7/2004, aiming to ensure the increase of the quality of public services, a good administration in achieving the public interest and the elimination of bureaucracy and corruption, but in practice there were found impediments in the implementation of this code of conduct of civil servants. (Baltaru, 2013, pp. 5-7)

Analyzing the results of the Transparency International index for 2020 (2021a), as shown in Fig. 1, we notice that compared to the average score of 64 found in the European Union, Romania is at the end of the ranking, with 44 points out of 100, like the neighboring countries, Bulgaria and Hungary. In the opposite direction, Denmark, Finland, Sweden, the United Kingdom of the Netherlands, Germany and Luxembourg are at the top of the ranking. Thus, we observe a favorable situation in countries considered to be well developed, and the deficiencies are noticed in developing countries that have in common the transition from a communist regime to democracy.

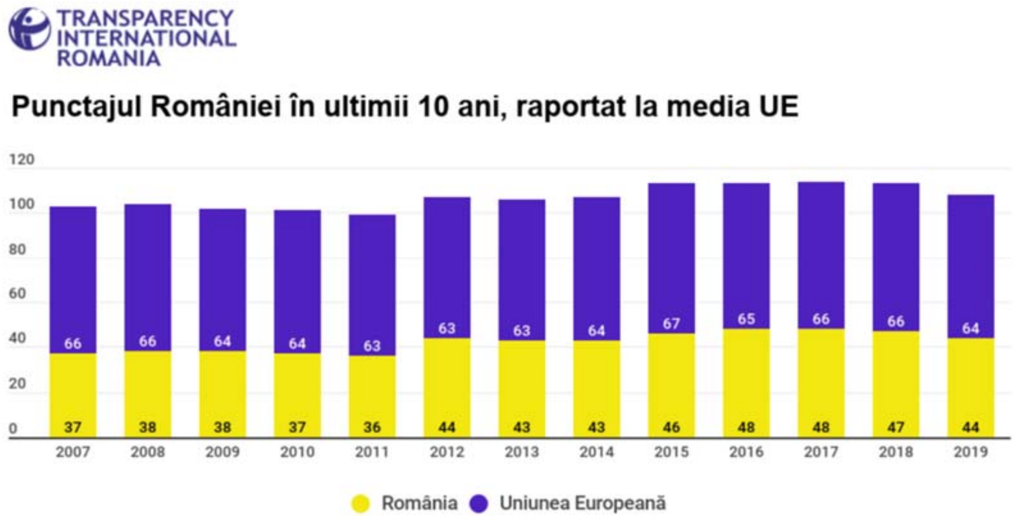
Figure 1. *Corruption Perceptions Index scores for 2020*



Source: Transparency International (2021a).

Considering the score obtained by Romania in the period 2007-2019, highlighted in Fig. 2, and referring to the score of 44 obtained in 2020, as shown in Figure 1, we see that the improvement was gradual, reaching the peak of 48 points in 2016-2017, following a depreciation. The score of 44 points in 2020 is the same as in 2012, indicating that reforms over this period have not been constant and have not led to a real change in the system and the perception that independent experts and the environment business has to do with corruption in Romania. (Transparency International, 2021b)

Figure 2. *Romania's score in the last 10 years, compared to the EU average*



Source: Transparency International (2020).

To analyze good governance, the World Bank (no date) uses 6 indicators: voice and responsibility (listening to the perspective of citizens and their involvement in the governance process); political stability and the absence of violence; government effectiveness; quality of regulations; observance of the rule of law; corruption control. In terms of corruption control, the World Bank (no date) report for 2010, 2015 and 2020 indicates an improvement in the situation in several European countries, but when talking about Romania we can see an improvement in 2015 compared to 2010, whilst in 2020 compared to 2015 we notice a regression that it registered. These data are highlighted in Annex no. 1 of this paper and confirms the statement in the previous paragraph regarding the effectiveness of anti-corruption measures adopted in recent years in the administrative system in Romania.

In order to reform the administration in the medium and long term in terms of corruption, Transparency International Romania (2021b) has proposed seven solutions:

- "Promoting Integrity Pacts in the conduct of public procurement, independent mechanisms for real-time monitoring of major public works projects and more.
- Digitization of administrative processes, by establishing the National Compliance Register, which will be able to improve administrative transparency and accountability, helping to reduce vulnerabilities to corruption in public administration.

- Transposition into national law of the EU Directive on warning in the public interest of high standards of compliance.
- Provide support to institutions with an anti-corruption role, in order to increase their operational capacity and effectiveness, including by preserving and improving the regulatory framework.
- Providing resources, in conditions of independence, of the actors from the non-governmental sector and the active involvement in the monitoring of the activity of the public sector, as well as of the operations of the big economic, national and international actors.
- Systematic development of a culture of acceptance of constructive criticism and response to feedback.
- Initiation of ranking and rating mechanisms in different sectors to support the exit from the 40-point blockade in which Romania has been for over 10 years." (Transparency International Romania, 2021b)

In addition to these seven proposals, it is emphasized that there is a need for the continued involvement of societal actors, including the political class, public institutions, the private sector and citizens, each with its own role and responsibility in the fight against corruption (Transparency International Romania, 2021b) to improve the current situation which we find in the Romanian society nowadays.

The 2020 country report on Romania published by the European Commission (2020) highlighted corruption as a major problem for the Romanian business environment. In relation to the involution presented above, to the detriment of the preventive and sanctioning actions it manifests, several impediments can be observed in returning to considerable results in the fight against corruption. The results obtained are considered to be the result of the legislative changes of the last years and the exert of a permanent pressure on the judicial institutions. From this perspective, it is necessary to take corrective measures that will lead to an increase in Romania's interest and capacity to investigate cases of corruption identified at a high level. In this context, the European Commission recommended to Romania to improve the efficiency of public administration in order to reduce bureaucratic burdens for companies and improve the predictability of decision-making, by properly including all social partners as well. (European Commission, 2020)

Although the implementation of Romania's national anti-corruption strategies in recent years has progressed technically, it has been suggested that the political commitment be renewed to ensure the credibility and impact of the process (European Commission, 2020). Thus, by Government Decision no. 1269/2021, the National Anti-Corruption Strategy 2021-2025 was adopted. This is a document following the Anti-Corruption Strategy 2016-2020 and includes the received international recommendations. The preamble of this document mentions corruption as a limiting element of Romania's development and capacity to promote foreign policy objectives in the international arena, while affecting the efficiency and professionalism of the administrative system. This affects the confidence of citizens, especially in the provision of services dedicated to them.

5. Conclusions and final considerations

In the light of the ideas presented in this paper, we can observe a special importance of anti-corruption measures in reforming an administrative system, especially regarding the increase of its performance and the improvement of the citizens' perception towards the services provided. In addition, the data on the perception of corruption and its control in Romania in recent years indicate the need of developing sustainable measures that would lead to an improvement in the situation over time and their consolidation, not a setback. The sporadic, uncalibrated measures and the frequent legislative changes in the matter, place Romania on the last places in the European rankings in this regard.

The reform of the Romanian public administration in terms of increasing transparency and reducing corruption through appropriate measures must take into account the particularities that the system has acquired over time in order to be feasible, otherwise it risks being a reform aimed at failure. Although Romania has made progress over time in controlling and perceiving corruption, it is currently facing a setback that can be attributed to the inconsistency of measures with the factual situation and their strategic failure to durable.

Also, even in the years with a high score, Romania was far from the European average, often being on the last positions at European level. In this direction, Romania can draw inspiration from the good practices of similar countries from an administrative point of view that have made progress, for example France. Obviously, this inspiration must take into account an analysis of the measures and their adaptability, rather than the actual transposition of the actions taken in the reference system. If the standard is too high, the attempt to transpose the measures may fail due to development differences. In addition to this, if the standard was not to be challenged (for example if we were to be inspired by the measures taken by the countries that are still in the last positions in the rankings, which have not made progress), the analysis would not lead to the development of measures to bring about a real long-term reform of the system.

Improving the administrative system in this direction would also lead to an increase in the citizens' confidence in the system and its representatives. Moreover, it would have an impact on citizens' satisfaction regarding the services provided. Thus, the process of development and implementation of measures to prevent and combat corruption should be massively speeded-up.

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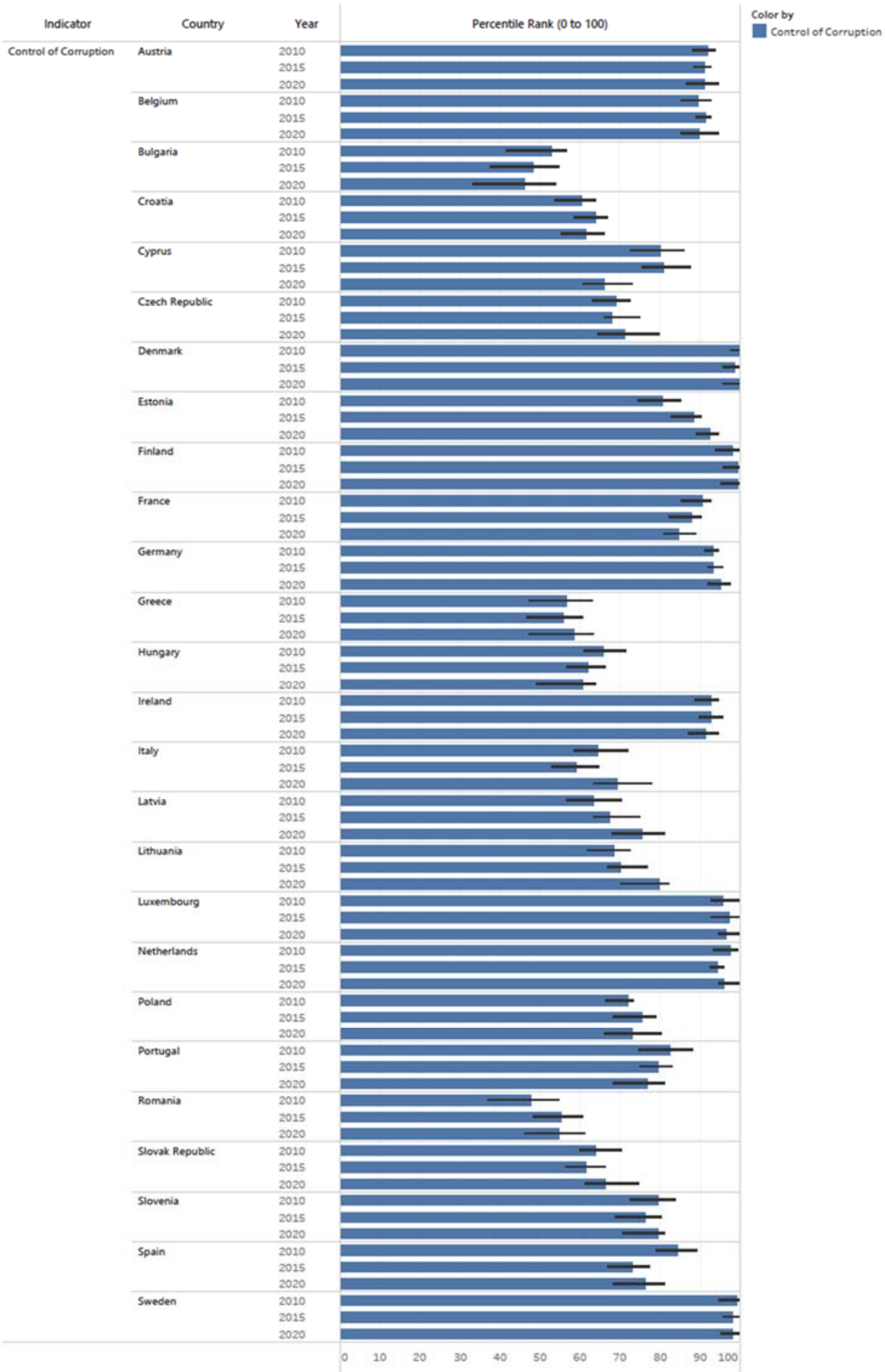
Annex number 1. *World Bank Control of Corruption Indicators 2010-2015-2020*



Source: World Bank.

A Meaning for the EU Energy Dependency: What Next?

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Abstract. *This article focuses on establishing whether there is indeed a dependency that the EU has on third countries when it comes to its energy imports and whether such a dependency is relevant in the context of the EU current goals under the ambitious climate change agenda. The research also looks to see whether Russia is indeed a key partner for Europe when it comes to energy. To answer these questions, we consider the context of the EU energy sector by analysing its consumption and production levels over the last decade, before the Covid-19 pandemic. After gathering evidence from data available and analysing it, we conclude on pointing out the future questions needed to be further answered considering the current challenges that the European Union is facing when it comes to the energy sector.*

Keywords: *energy dependence, energy production, imported energy, primary energy, European Union, Russia.*

JEL: P18, K32, O13, Q47.

1. Introduction

Energy is an essential component for the economy and society. Energy sources can be classified into primary energy sources (the natural sources as fossil energy, nuclear energy, wind energy, solar energy, geothermal energy and hydropower), from which electricity can be obtained – as a secondary source of energy[1]. In the context of the increasing interest in entering the global energy markets and the necessity of the stability of energy supply flows, the geopolitics of energy interdependencies deals with a set of criteria that influences tensions between states and determines the balance of power between them. Adding to this matter the objectives of the new climate policy, the role of renewable sources increases as the public opinion becomes more and more involved in the practical implementation of the “zero net carbon” concept.

Two types of forces are involved in the geopolitical analysis of global energy interdependencies. First, there is the global game of power: the energy producing countries are trying to gain both profit and political influence over the consumer countries that they serve, among which the regions where energy producers need to grow their political influence (like Eastern Europe for Russia) are of a particular importance. Second, there are the concerns about reshaping the energy system based on the climate agreement and the process of transitioning from fossil fuels to renewable sources.

The transition from the present – where the consumption of oil, coal and natural gas represents more than 80% of the total resources – to a world that mainly uses renewable energy sources – represents the “energy transition” and involves costs and new technologies, which states have to assume. Climate policy is set to be a key factor in global geopolitics. In this regard, 195 countries signed the Paris Agreement in 2015, thus creating a framework for a benchmark in the global evolution of policies, in order to reduce climate impact. Following the signing of the Paris Agreement, the European Union has undertaken the achievement of climate neutrality by 2050. The adopted European Green Deal set a more ambitious target: to make the EU's economy and regulations fit for reducing the net greenhouse gas emissions of at least 55% by 2030. To achieve this goal means transforming European society and the economy in a cost-effective, fair and

[1] Stratos.ro *Tipuri de energie și cum afectează mediul înconjurător*. Available at: https://stratos.ro/tipuri-de-energie-si-cum-afecteaza-mediul-inconjurator/ (Accessed: 5 January 2022).

socially balanced way. The European Union has reaffirmed its commitment to the green transition by adopting legislative changes on greenhouse gas emissions, renewable energy and energy efficiency.

During the last decade, the European Union has seen a relatively uniform increase in the production of energy from renewable sources (48.3%), largely replacing the production of energy from other sources. As a result, the production of primary energy from fossil fuels decreased, in 2019 being 8.6% lower than ten years ago.[2] However, not all countries have increased their production from renewable sources at the same time or in the same way.

Currently, however, 80% of the energy consumed in the UE comes from fossil fuels.[3] Thus, there has been an increase in the energy imports from countries outside the European space. In 2019, more than half of the EU's energy needs (60.7%) came from imports, mainly from solid fossil fuels and natural gas exported by Russia - increasing the EU's energy dependence on Russia.[4]

2. Energy security in the EU

The European Union's energy policy focuses on a series of measures aimed at building an integrated energy market and a sustainable energy sector, while ensuring the security of energy supply in the EU. Within the common energy policy of the European Union, some aspects are the subject of shared competences (article 194, paragraph 2, Treaty on the Functioning of the European Union), in which each Member State has the right to establish both the conditions of exploitation of its own energy resources and the structure of the energy supply mix.

The objectives of the EU energy policy are aimed at both the energy security (thru diversification of sources with strengthening cooperation and solidarity between member states; development and modernization of infrastructure necessary for the proper functioning of the integrated market and elimination of technical or

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[2] Eurostat (2021). *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics- explained/index.php?title=Energy_production_and_imports#The_EU_and_its_Member_States_are_all_net_importers_of_energy (Accessed: 5 January 2022).
[3] Yergin, D. (2020). *The New Map*, 2020, p. 107.
[4] Eurostat (2021). *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_production_and_imports#The_EU_and_its_Member_States_are_all_net_importers_of_energy (Accessed: 5 January 2022).

regulated barriers; reduction of dependence on imports) as well as at climate change (increasing energy efficiency, transitioning to a low-carbon economy, promoting and prioritizing research and innovation in clean energy technologies).[5]

For the EU, energy security means greater flexibility and diversity in supply, together with boosting the formation of a single energy market, and with increasing the interconnections between gas pipelines or electricity transportation networks. The piping systems have been redesigned to change the direction of gas flow if necessary. Investments in LNG (Liquefied Natural Gas) terminals and storage systems have increased. Initiatives and policies aiming to reshape the entire European energy infrastructure have been promoted; and legislation designed to promote fair and transparent competition had been adopted. On the subject of climate, the EU has adopted regulations promoting decarbonisation, thus increasing energy efficiency and facilitating the transition to renewable energy. (Yegin, 2020, p. 88)

3. European Union energy dependency rate

3.1. The EU as a global actor

The European Union is an economic and political union of 27 states, covering a total area of 4,233,255.3 km². It is located between the North Atlantic Ocean (west) and Russia, Belarus, Ukraine and the Black Sea (east) and has a total population of about 447 million.

The degree of urbanization is high as 75% of the population lives in cities, which makes it one of the most important energy consumers and one of the top polluters in the world. However, the phenomenon of urbanization is in a continuous expansion, the delimitation between the urban and the rural becoming more and more blurred at the average European level.[6] Within the Member States, however, the situation is different. In the eastern states there is a big difference in the development of cities - the cities topping the charts are between 5 to 10 times larger than those ranking just under them. The large urban agglomerations are

[5] European Parliament (2021). *Politica energetică: principii generale.* Available at: https://www.europarl.europa.eu/factsheets/ro/sheet/68/politica-energetica-principii-generale (Accessed: 5 January 2022).

[6] Agenția Europeană de Mediu (2021). *Mediul urban.* Available at: https://www.eea.europa.eu/ro/themes/urban/intro (Accessed: 5 January 2022).

located in west Europe (for example, the large urban-industrial concentrations in the West German states). Malta is the state with the highest degree of urbanization (90%), with Slovenia at the opposite pole (50.8%). Romania is at the bottom of the ranking, with a degree of urbanization of only 54.9%.[7]

The European Union stands out for its dominance of the industrial sector, with agriculture ranking last as the European average. In the last 20 years, information technology, professional services, real estate and public administration have increased, observing a declining trend in the share of industry, agriculture and construction. There are several differences at the individual level of the Member States. For example, the industry sector is more predominantly developed in Germany (car construction, textile industry, leather), France has an important share in the public sector (administration, education, health and social assistance), Romania is on the first place in terms of the share of agriculture, while tourism represents a major share of the economy in countries such as Greece, Italy, Cyprus, Malta.[8]

In order to support and standardize the development of Member States, the EU has developed regional policies that consider specific social and economic challenges. In this context, the European transport networks are in a continuous development and modernization, managing to ensure efficient and safe mobility in all regions.[9] The common policies established in Member States are the single market, the customs union and the monetary union. All together, these regulations have allowed the increase in mobility of goods, people, services and capital, leading to the development of the EU economy as we know it today. The European energy policy, through the full integration of the internal energy market, ensures the free movement of energy, without technical or regulatory barriers on European Member States.

The energy infrastructure of the EU consists of interconnected energy networks, materialized through 9 priority corridors (1 for oil, 4 for gas and 4 for electricity)

[7] Neamţu, L.; Neamţu, A. *Piața europeană și caracteristicile sale*. Available at: https://core.ac.uk/download/pdf/6233894.pdf (Accessed: 5 January 2022).
[8] Radio France Internationale Romania (2020). *Ce produce Uniunea Europeană. Industria are cea mai mare pondere în PIB, agricultura, cea mai mică.* Available at: https://www.rfi.ro/economie-126703-produce-uniunea-europeana-industria-pondere-pib-agricultura (Accessed: 5 January 2022).
[9] European Union (2009). *Politica regională a Uniunii Europene, o sursă de inspirație pentru țările din afara UE?.* Available at: https://ec.europa.eu/regional_policy/sources/international/pdf/external_mo.pdf (Accessed: 5 January 2022).

and 3 priority thematic areas (cross-border carbon dioxide networks, electricity networks and smart grids). The European energy policy supports the diversification of energy sources, the development of gas and electricity supply routes and interconnections on a north-south axis, the creation of several liquefied natural gas terminals, and the opening of the internal market.[10]

3.2. Energy mix in the EU

In 2019, the total amount of energy consumed in the EU was 935Mtoe.[11] The energy mix of resources of the EU in 2019 came mainly from 5 primary sources: oil products (36.4%), natural gas (22.4%), renewable energy (15.3%), nuclear energy (13.1%) and energy from solid fossil fuel (12.6%).[12]

The mix of energy consumption has a different composition for each Member State (the choice of resources for domestic consumption is one of the areas of shared competences of the Member States). The types of resources intervene in the energy mix of the internal consumption of each state with a differentiated share. Thus, petroleum products have a significant share in the total amount of energy available for consumption in Cyprus (90%), Malta (87%), Luxembourg (65%). Natural gas accounts for a large percentage of the energy mix of consumption in countries such as Italy (39%) and the Netherlands (37%), solid fossil fuels have a high share in the case of Estonia (60%) and Poland (43%), while the energy for consumption comes largely from nuclear energy in France (with a percentage of 41%) and Sweden (31%). The significant share of renewable energy in the energy mix of consumption in countries such as Sweden (41%) and Latvia (37%)is also noteworthy.[13]

In the EU, 2/3 of the total energy consumed is used by final consumers, representing the following economic sectors: industry (a sector that consumes 32% of the amount of energy that goes to final consumers), transport of people or goods (consuming 28%), household consumers (consuming 24%), and agriculture

[10] European Parliament (2021). *Politica energetica: principii generale.* Available at: https://www.europarl.europa.eu/factsheets/ro/sheet/68/politica-energetica-principii-generale (Accessed: 5 January 2022).
[11] Eurostat (2021). *Energy statistics – an overview.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_statistics_-_an_overview#Primary_energy_production (Accessed: 5 January 2022).
[12] Eurostat (2021). *Where does our energy come from?.* Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2a.html?lang=en (Accessed: 5 January 2022).
[13] Ibid.

(consuming 3%). The remaining 1/3 of the total energy is used in the development of energy production processes (secondary energy sources), its transport and energy transformation.[14]

To analyse the types of energy used by final consumers it is relevant to use the consumption mix statistical data available. At the EU level, the 2019 consumption mix shares were: 41% of the total final consumption was the consumption of petroleum products (with the final use of fuel or heating), 21% natural gas, 20.8 % electricity consumption, 10% was renewable energy consumption (such as wood, solar or geothermal biogas - used to heat rooms or get hot water), 2% fossil fuels (especially coal). Renewable energy consumption is actually higher than 10%, because some of the renewable resources (hydropower, wind energy and solar photovoltaic energy) are used as secondary sources to obtain electricity.[15]

3.3. Energy production in Europe

In the context of the Paris Agreement and the assumption of achieving the goal of climate neutrality, EU energy production is moving towards a green zone. Thus, in 2019, from the total EU production of 615 947 Mtoe,[16] (25 788 Petajoule (PJ))[17], the largest contribution was from renewable energy (37% of total energy produced in the EU), followed by nuclear energy (32%), solid fossil fuel (19%), natural gas (8%) and oil (4%).[18]

In the case of each Member State, the values of primary energy production differ for each state. Thus, in France, the production represented 20% of the total at European level, Germany achieved 17.1%, Poland 9.6%, while Italy and Sweden had 6%.[19]

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[14] Ibid.

[15] Eurostat (2021). *What kind of energy do we consume in the EU?*. Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-3a.html?lang=en (Accessed: 5 January 2022).

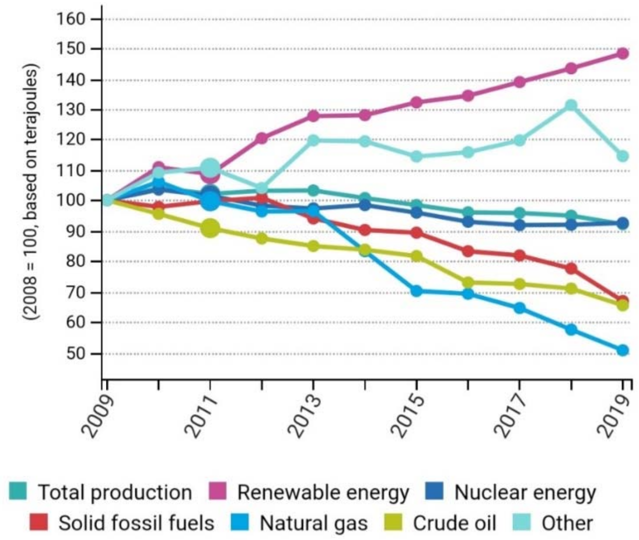
[16] Eurostat (2021). *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_production_and_imports (Accessed: 5 January 2022).

[17] Eurostat (2021). *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_production_and_imports#The_EU_and_its_Member_States_are_all_net_importers_of_energy (Accessed: 5 January 2022).

[18] Eurostat (2021). *What do we produce in the EU?*. Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2b.html?lang=en (Accessed: 5 January 2022).

[19] Eurostat (2021). *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_production_and_imports (Accessed: 5 January 2022).

Graph 1: *The production of primary energy by fuel type, EU, 2009-2019*



Source: Eurostat (2021) *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_production_and_imports (Accessed: 5 January 2022).

The amount of energy produced in the European Union comes from a wide range of primary energy sources: solid fossil fuels, natural gas, oil, nuclear energy and renewable energy.[20]

Each Member State has its own mix of energy production. Thus, in France, a large share is held by nuclear energy (78% of total national energy production), as in Belgium (71%) or Slovakia (58%). In countries such as Malta, Latvia, Portugal and Cyprus, national energy production is based more than 90% on renewable energy. In the Netherlands, the main source is natural gas, solid fossil fuels is the main source in the national energy production of countries such as Poland (77%), Estonia (62%), the Czech Republic (52%) and Greece (49%). Oil has the biggest share in the energy production mix in Denmark.[21] In the case of Romania, the energy mix is one of the most balanced in Europe, with natural gas, hydropower, coal, nuclear energy and wind energy having approximately equal shares in national energy production.[22]

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[20] Eurostat (2021). *What do we produce in the EU?.* Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2b.html?lang=en (Accessed: 5 January 2022).
[21] Ibid.
[22] CEE Bankwatch Network *The energy sector in Romania.* Available at: https://bankwatch.org/beyond-coal/the-energy-sector-in-romania (Accessed: 5 January 2022).

3.4. Energy imports into the EU

At the EU level, the total amount of energy consumption comes both from internal production (summing up the individual production of the Member States) and from energy imported from third party countries. In 2019, the EU's own production was about 39% of the total consumption, the remaining 61% being imported energy.[23] The total energy consumption (the total energy consumption of a state represents the total amount of energy that the state has at its disposal) comes from several types of primary energy resources.[24]

To sustain its own consumption, the EU needs to import energy - mainly in the form of energy products. Most of these imports are from non-EU countries. In 2019, petroleum products (of which crude oil is the most important component) accounted for ⅔ of the total energy imports, followed by natural gas (27% of imports) and solid fossil fuels (6% of total energy imports).[25] If a large proportion of imported energy comes from a small number of exporters, it can become a threat to the energy supply security.[26]

In 2019, out of the total 846973 thousand tons of petroleum products imported in the EU, a percentage of 27% (respectively 195641 thousand tons)[27] came from Russia, to which were added the imports from other states such as Iraq (9%), Nigeria (8%), Saudi Arabia (8%), Kazakhstan and Norway (both 8%).[28] The situation is similar for the import of natural gas (the total import being 440593 million cubic meters): 41% of the total amount of imported gas comes from Russia (ie 166036 million cubic meters)[29] to which is added 16% from Norway, 8% from Algeria, 5% from Qatar. Regarding the import of solid fossil fuels, out of a total imported of 137034 thousand tons, the import from Russia reaches

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[23]Eurostat (2021). *Where does our energy come from?*. Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2a.html?lang=en (Accessed: 5 January 2022).
[24] Ibid.
[25] Eurostat (2021). *From where do we import energy?*. Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html?lang=en (Accessed: 5 January 2022).
[26] Ibid.
[27] Eurostat (2021). *Imports of oil and petroleum products by partner country.* Available at: https://ec.europa.eu/eurostat/databrowser/view/NRG_TI_OIL__custom_938408/bookmark/table?lang=en&bookmarkId=85542020-ba3b-40ec-babd-e72e5cc45423 (Accessed: 5 January 2022).
[28] Eurostat (2021). *From where do we import energy?*. Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html?lang=en (Accessed: 5 January 2022).
[29] Eurostat (2021). *Imports of natural gas by partner country.* Available at: https://ec.europa.eu/eurostat/databrowser/view/NRG_TI_GAS__custom_938385/bookmark/table?lang=en&bookmarkId=d84ea630-1f0a-4827-891d-f4a8e930dfe7 (Accessed: 5 January 2022).

56108 thousand tons[30], representing 47% (to which is added 18% from the USA and 14% from Australia)[31].

Imported energy products vary in type and percentage, depending on the needs of each Member State. Thus, if in Cyprus, Malta, Greece and Sweden, more than 80% of imports are oil products, in Hungary, Italy, Austria and Slovakia 30% of imports are natural gas.[32]

3.5. The energy dependency rate and relevant statistics

The EU imports energy from non-EU countries to supplement its own consumption. The rate of energy dependence indicates the proportion of energy that a certain economy imports, relative to the total amount of energy available for consumption. It is defined as[33]:

$$\text{the rate of energy dependency} = \frac{\text{net energy import}}{\text{gross energy available (\%)}}$$

A rate smaller than 100% means that the economy in question exports more energy than it imports. If the rate is higher than 100%, this means that energy stocks have been created.

In the last decade (2009-2019), energy imports have exceeded the primary production by more than 50%, the rate of dependence of the European Union on energy imports having a relatively stagnant evolution – ranging from 57.1 to 60.7% (Graph 1).[34] In 2019, the dependence rate was at a maximum regarding oil (96.8%) and natural gas (89.7%), reaching the minimum value for solid fossil fuels (44%).[35]

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[30] Ibid.

[31] Eurostat (2021). *Imports of solid fossil fuels by partner country.* Available at: https://ec.europa.eu/eurostat/databrowser/view/NRG_TI_SFF__custom_938375/bookmark/table?lang=en&bookmarkId=0fb30b5d-e94b-44f9-9fca-804d4f39fab5 (Accessed: 5 January 2022).

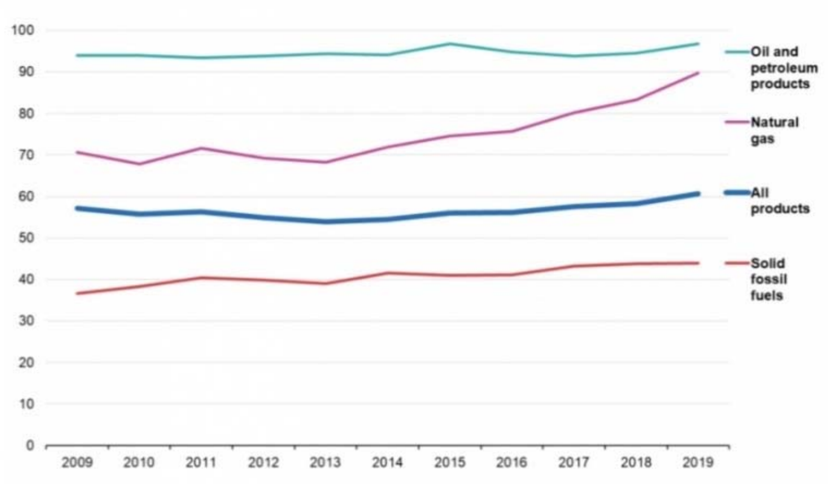
[32] Eurostat (2021). *From where do we import energy?.* Available at: https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html?lang=en (Accessed: 5 January 2022).

[33] Eurostat (2021). *Glossary: Energy dependency rate.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Energy_dependency_rate (Accessed: 5 January 2022).

[34] Eurostat (2021). *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_production_and_imports#The_EU_and_its_Member_States_are_all_net_importers_of_energy (Accessed: 5 January 2022).

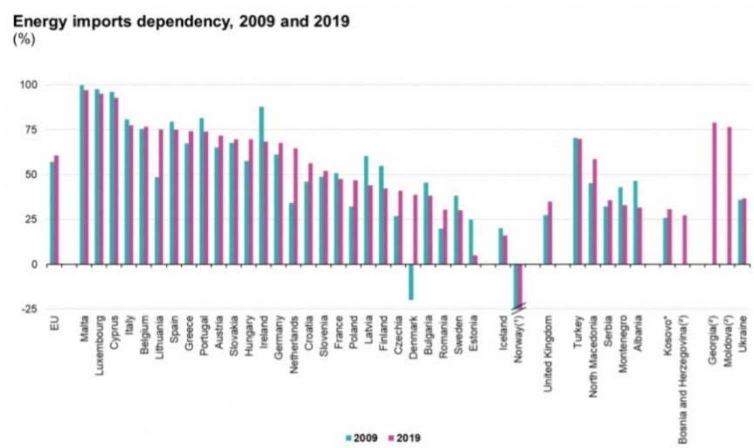
[35] Ibid.

Graph 2: *Evolution of the energy dependency rate of the EU in the period 2009-2019*



Source: Eurostat (2021) *Energy production and imports.* Available at: https://ec.europa.eu/ eurostat/statistics-explained/index.php?title=Energy_production_and_imports#The_EU_and_its_ Member_ States_are_all_net_importers_of_energy (Accessed: 5 January 2022).

Graph 3: *Energy imports dependency (2009-2019)*

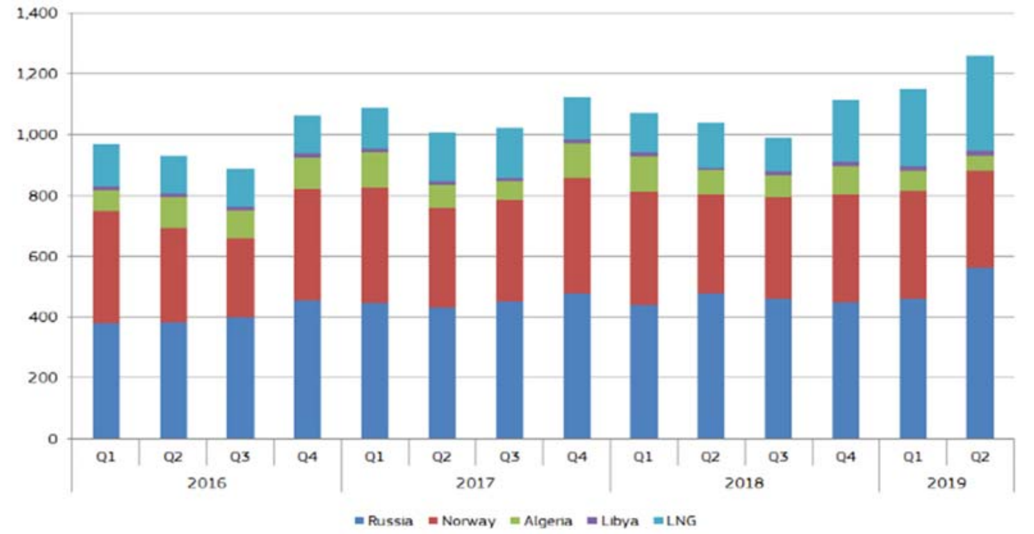


Source: Eurostat (2021) *Energy production and imports.* Available at: https://ec.europa.eu/ eurostat/statistics-explained/index.php?title=Energy_production_and_imports#The_EU_and_its_ Member_ States_are_all_net_importers_of_energy (Accessed: 5 January 2022).

Graph 3 shows the energy dependencies of each Member State in terms of imports. In some cases, energy imports exceed 90% of the total consumption of that country (Cyprus, Luxembourg and Malta), while other countries have much lower import dependencies (Estonia, Sweden and Romania). Moreover, it can be seen that 9 other Member States far exceed the EU average of 60%, importing more than 70% of their energy from outside the EU.[36]

According to latest data published by the European Commission, about 26% of the EU's oil imports and 40% of the EU's gas imports come from Russia[37]. At the same time, the dependency that the EU has on Russian energy has been increasing over the years, particularly when it comes to gas imports. This is particularly important since energy from natural gas is used for both industrial production and heating and makes more than 20% of the EU energy mix.

Graph 4: *EU imports of natural gas by source in Twh (2016-2019)*



Source: European Commission, based on data from the ENTSO-G Transparency Platform, availble at https://ec.europa.eu/energy/sites/ener/files/documents/quarterly_report_on_european_gas_markets_q2_2019_final_v1.pdf (accessed January 6, 2022).

While data is not similarly available for each EU Member State when it comes to establishing the energy dependence on Russia, taking into consideration the degree that EU as a whole is becoming increasingly dependent on Russian gas and considering the fact that it will take a long time before the policy goals established through the Green Deal will be implemented, given the need for investments, it is

[36] Eurostat (2021). *Energy production and imports.* Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_production_and_imports#The_EU_and_its_Member_States_are_all_net_importers_of_energy (Accessed: 5 January 2022).
[37] European Commission, Countries and Regions, Available at: https://ec.europa.eu/trade/policy/countries-and-regions/countries/russia/ (Accessed: 8 January 2022).

clear that Russia will play an important role in securing the EU's energy supply in the years to come.

Further analysis in what regards the specific tools and infrastructure that both EU and Russia have will be needed in order to conclude on how the bilateral relationship will ease or not the energy dependency that the EU has developed over time. This is particularly timing, considering the current geopolitical events in Ukraine – one of the main route for Russian gas into the EU as well as the future of the infrastructure projects to be developed.

4. Conclusions – The next questions

As it can be seen from the statistical data analysed, more than half of the energy needs come from imports from third countries, although the rate of energy dependence of the EU seems to have stabilized in the last decade. Of these exporting countries, Russia ranks first in primary sources, in terms of oil and natural gas.

The problem of the energy dependence of the European states on energy imports is not just an internal European problem, but a hot issue in global geopolitics. During a luncheon given by the NATO Secretary General, Donald Trump, then President of the US, said, referring to Nord Stream 2, that: "Germany is completely controlled by Russia, because 60-70% of its energy needs come from Russia. Tell me if it's appropriate. I don't think so" (Yergin, 2020, p. 107). He went on to say, "Germany is a captive of Russia" (Yergin, 2020, p. 107). Germany's reply came from Chancellor Merkel: "we are very happy that today we are united in freedom and we can make independent policies and make independent decisions" (Yergin, 2020, p. 107). From these remarks, a basic question arises: is this trade relationship an instrument of Russia's power and influence in the UE or is it a mutually beneficial relationship, the result of a balance of geopolitical forces? Considering the current crisis over Ukraine, this question becomes even more relevant. However, in order to give an legitimate answer, further research needs to look into the practical ways that Europe can escape Russian dependency and build infrastructure and relations that are diversifying away from it.

In order to increase the security of the energy supply, the EU has implemented numerous initiatives regarding the development of gas pipelines, including Nord

Stream (operational since November 2011, on the Russia – EU route via the Baltic Sea), Trans Adriatic Pipeline (operational since 15.11. 2020, on the Azerbaijani – Italy route, via Greece and Albania) and the controversial Nord Stream 2. For the latter, on the Russia – Germany route via the Baltic Sea, talks began in 2015, but were hampered by the critical positions of some EU countries, located in the geographical neighbourhood of Russia (Poland and the Baltic countries), due to the conflict in Ukraine. Mikhail Krutikhin, an analyst and co-founder of RusEnergy, a Moscow-based independent consulting firm, told DW News that "the Russian government will not supplement gas supplies and will continue to raise prices not for commercial reasons but for purely political reasons". He argued that this behaviour was in fact blackmail in order for the EU states to sign the approval of the operation of the Nord Stream 2 pipeline, the analyst considering that "Putin is basically declaring war on the EU, using Russia's gas reserves as his main weapon".[38]

In order to address the security of energy supply issues, the EU has set up the Energy Community since 2005, which seeks to integrate the countries neighbouring the EU into the European internal energy market. By establishing strong partnerships with countries along the energy chain (exporter – transit – consumer) the EU hopes to reduce the risks of energy dependence. In addition to diversifying transport routes, another measure to increase the security of energy supply is to encourage Member States to use as diverse a mix of energy sources as possible, as well as to increase the production of renewable energy. The question to ask next is whether the investment into alternative, renewable sources will help diminishing the dependence on Russian energy and if yes, what is the timeline to do so? This is the key issue to investigate in relation to everything the EU proposes and adopts within the climate change policy making framework.

[38] The Global Herald (2021). *Europe's energy crisis: What's Russia's role?* Available at: https://theglobalherald.com/news/europes-energy-crisis-whats-russias-role-dw-news/ (Accessed: 5 January 2022).

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Covid-19 Pandemic
A Vector Of Change in Public Administration Organizations. A Comparative Approach for Eastern Europe

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Abstract. *Practice and research describe the public sector in general and public administration in particular as highly resistant to change. However, the current crisis triggered by the coronavirus and its inevitable repercussions on the economic, social and behavioral field, have triggered and continue to trigger structural and functional changes across public administration organizations. The article proposed aims, on the one hand, to highlight the structural and functional changes in the organizations mentioned, mainly due to the so-called principle of "social distancing" and, on the other hand, determining and substantiating strategic principles designed to strengthen administrative capacity in emergency or risk situations. The research methodology has included both an in-depth desk research and socio-empirical investigations carried out in Romania and in other Eastern European countries. The bibliographic research will insist on the complex and specific reality of public administration in the South-Eastern European states, their relatively low level of institutional robustness compared to western European public administrations. At the same time, socio-empirical investigations will have as central topics the need to open the public sector, in general, and public administration, in particular, to change, to trust in government and public authorities, understanding and addressing emergencies, management culture under conditions of risk and uncertainty. Subsequent topics will address telework in public administration, participation in the public decision of the citizen and decision-making transparency. The changes identified were generated by a special, unique situation, such as we are unable to estimate their sustainability and the extent to which the end of the health crisis will lead to their preservation. The study is offering proof of the degree of change within public organizations, change generated by a pandemic crisis. In addition, it places these changes in a recognized theoretical model.*

Keywords: *public institutions, transformations, social distancing, pandemic, model.*

JEL: H51, I 2, I18, H83, J18, D73.

Introduction

The last years' experience poses challenges for public institutions. They must adapt to an unpredictable, unique context generated by the coronavirus pandemic. The traditional mode of operation is influenced, affected, by social distancing, seen as a solution to limit the spread of the new coronavirus infection. Public institutions must oversee observance of isolation measures in society, but they must also apply their own protection measures.

The new challenge is to identify the transformations that public institutions are undergoing during this period, on two levels: internal operation and the relationship with the economic environment/civil society. The objective is to identify a functioning/operational model, a list of measures required in an unforeseen situation of crisis, a model that will probably continue to operate in the post-pandemic period.

In order to achieve the proposed objective, the method of sociological research was used, based on a questionnaire answered by central and local public administration institutions from seven Eastern European countries: Romania, Bulgaria, Republic of Moldova, Lithuania, Latvia, Hungary, Poland.

A number of 222[1] countries are being affected by the coronavirus pandemic. It puts huge pressure on public institutions and resources. On the one hand, economic activities are affected and we are witnessing a decrease in the contributions collected to public budgets, on the other hand, new categories of expenditures are emerging to deal with the pandemic. The drop in price of the oil barrel, of the value of gold, the suspension/decrease of activities in areas such as tourism, trade are just some of the short-term effects[2].

Under this framework, social distancing has become the quasi-unanimous recommendation[3] to limit the spread of Covid 19 infections. *Social distancing is deliberately increasing the physical space between people to avoid spreading illness. Staying at least six feet away from other people lessens your chances of*

[1] https://www.worldometers.info/coronavirus/
[2] See Coronavirus: A visual guide to the economic impact, Lora Jones, David Brown, Daniele Palumbo, 28.03.2020, https://www.bbc.com/news/business-51706225
[3] Social distancing puts space between people. When people who are infected with the virus stay away from others, they can't pass it to anyone else. Jonathen Miller, Coronavirus (COVID-19): Social Distancing With Children, 2020.

catching COVID-19[4]. Experts, governments, support this measure. This is not a psychological distancing[5], but a physical one.

Social distancing is not a new concept, being intensely analyzed by sociologists and psychologists[6]. Social distancing is *the degree of acceptance or rejection of social interaction between individuals and especially those belonging to different social groups (such as those based on race, ethnicity, class, or gender)*[7].

In the face of social distancing measures, public institutions have a double role: on the one hand to ensure compliance with government measures imposed on society, on the other hand, to apply rules for their own operation. The coronavirus pandemic may be an opportunity to accelerate measures for public institutions reform, which have been delayed or were not considered a priority. Social distancing has led to a new way of working, from a distance, using information technologies. Relations with citizens seem to acquire another value. Tools that have been ignored so far, such as risk registers or emergency plans, are proving useful.

2. Literature review

Changes in the structures and methods used in public organizations are generated by the transformations of the socio-economic environment in which they exist. Ben Kuipers et al. (Ben Kuipers et al. 2014) makes an inventory of the sources of change (Ben Kuipers et al. 2014): "*The context factor refers to the organization's external and internal environments, such as a changing political environment or*

[4] Lisa Lockerd Maragakis, senior director of infection prevention at Johns Hopkins, Coronavirus, Social Distancing and Self-Quarantine, https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-social-distancing-and-self-quarantine

[5] Social distance can be thought of as a form of psychological distance, one of many factors that affect whether something or someone is experienced as being close to or far from the self here and now. *(6) (PDF) The Social Distance Theory of Power*. Available from: https://www.researchgate.net/publication/235371372_The_Social_Distance_Theory_of_Power [accessed Mar 30 2021].

[6] Bogardus, E. (1925). Measuring social distance. *Journal of Applied Sociology, 9*, Hodgetts, D., Drew, N., Sonn, C., Stolte, O., Nikora, N., & Curtis, C. (2010). *Social psychology and everyday life*. Basingstoke, UK: Palgrave/MacMillan, Hodgetts, D., Stolte, O., Radley, A., Leggatt-Cook, C., Groot, S., & Chamberlain, K. (2011). 'Near and far': Social distancing in domiciled characterizations of homeless people. *Urban Studies, 48*(8), 1739–1754, Triandis, H., & Triandis, L. (1962). A cross-cultural study of social distance. *Psychological Monographs, 76*(21).

[7] "Social distance" *Merriam-Webster.com Dictionary*, Merriam-Webster, https://www.merriam-webster.com/dictionary/social%20distance. Accessed 30 Mar. 2020.

the institutionalization of a public organization (e.g. Philippidou et al. 2008). The content factor focuses on the content of the change, including the organization's strategies, structures and systems (Armenakis and Bedeian 1999). An example of a content issue in the public sector could be New Public Management (NPM), a world-wide reform trend in the public sector (Pollitt and Bouckaert 2004)". The new public management is also mentioned as a source of change by Flynn (Flynn 1990) or Guy Peters (Guy Peters 2003).

Changes in the public sector can be systemic, aimed at reforming the public sector (Tsoukas and Papoulias 2005), organizational (Van de Ven and Poole 1995) or can target components of organizations (Carol Rusaw 2007).

The specialty literature comprehensively analyzes the factors that can lead to change in the public sector, such as low performance compared to planned results (Jas Pauline, Chris Skelcher, 2005), differences between the established strategy and what actually happens in a system/organization, due to the hostility towards the innovative elements, the introduction of new management methods and techniques (Joris Van der Voet & al. 2016) or relevant changes in the economic, technological and social environment (Lazarevski, Katie & al., 2008). Customers to compete with the private sector are considered factors that generate change (Katharine Leigh, 2016).

Transformations of the economic, technological and social environment are frequently discussed and take into account the role of the public sector and public institutions, that of meeting the general interest. Therefore, the public sector and public organizations try to adapt to the level of structures and methods used, aiming to increase the quality of public services. Change is not an end in itself, but must be seen as a natural process whose main objective is the very purpose of the public sector existence.

During this period we are witnessing changes, sources and factors which were not anticipated in the literature, but can be framed as being generated by changes in the social environment, so the challenge is to identify the model that can be applied in the new context generated by Sars Cov 2 Pandemic.

Katharine Leigh (2016) concludes that *organizations, whether they are in the public sector or in the private sector, have many change management models to choose from.*

Carol Rusaw (Carol Rusaw, 2007) describes four models that, in his opinion, can be applied to public organizations:

a) fundamental models on the analysis of triggers that generate changes, the identification of possible interventions, and the selection and implementation of the best intervention. These models take into account long-term changes such as the development of plans, strategies, quality standards, processes redesigning;
b) incremental models, which aim at minor changes to achieve limited, tangible and fast results;
c) pluralistic models, which take into account multiple contributions, resources and commitment to solving local social or economic problems;
d) individual models, aimed at personal development through training programs.

Dunphy and Stace (1990) propose a model of strategies for change frequently presented in literature.

The model, developed in two dimensions – the style of change and the scale of change, proposes 5 different types of change.

1. Taylorism is the type of change based on small adjustments, in which change is actually avoided.
2. Development transition: This type of change focuses on employee development, team building, use of quality management tools, continuous improvement, services quality increase.
3. Task-focused transition: This type of change focuses on innovation, the introduction of new techniques and processes, ongoing adaptation.
4. Charismatic transitions: It is the type of change generated by the leader's ability to impose it by enticing and convincing his collaborators.
5. Answers: This type of change is based on authority and coercion, it is imposed.

However, regardless of the model applied, the public sector is affected by a strong **resistance to change.** Ansoff (1991) appreciated that resistance influences the process of change, postponing, rejecting or preventing change and Schermerhorn (et al., 2002) appreciated that resistance to change is any behavior or attitude indicating a refusal to support or operate the proposed changes. The causes of resistance can be multiple, from objective factors to some topics described in detail in specialized papers (Leigh, 1997), such as lack of information, fear of change, fear of losing status in the organization, inappropriate timing of change, fear of failure, lack of resources for change.

Sergio Fernandez (Sergio Fernandez et all 2006) identifies 8 factors that can lead to change:

1. Identifying the need for change
2. Preparing a plan for change
3. Providing internal support to eliminate resistance to change
4. Providing the support and commitment of senior management
5. Providing external support
6. Identification of resources
7. Institutionalizing change
8. Tracking the implementation of change

According to the explanatory model developed by Kochan, Katz and McKersie and developed by Chaykowski and Verma (1992), the context of a crisis is the trigger for change and the introduction of innovation. The turbulent situation in which the world, societies and the public sector find themselves due to the Sars Code 2 Pandemic represents the context that can generate change in the public sector. A crisis, regardless of its nature, whether fiscal, political, economic is mentioned by several authors as a trigger for introduction of novelty. For the public sector, the economic crisis and the requirements for public services of the population acted as triggers of change. Now a new type of crisis, unforeseen, can lead to change.

The current crisis goes beyond the typology with which the public sector was familiar, because it affects the economic, political environment and the society as a whole. This triple crisis has got important influences on the priorities and philosophy of public management. The models used so far seem outdated, the ongoing reform strategies have become unusable, so a new approach is required, to adapt to the new pandemic context.

However, just perceiving the state of crisis is not enough to resort to change and adopt the elements of novelty. Catalysts are required, agents of innovation to understand the current state, its uniqueness, and to promote new models of public management. In order to generate change, this innovator must have the power to make decisions and be convinced of the need for change, differently than before. Additionally, the usefulness of the services provided by the state and local authorities must be understood and aim at improving their provision in times of crisis.

The bureaucratic structure of public organizations limits the capacity for change, innovation, so that adaptation becomes even more difficult, especially since innovation can only be adopted if there is a political mandate in this regard. Thus, there is a risk that change efforts will be based more on public consensus than on the concepts of efficiency, effectiveness, administrative capacity.

Moreover, the whole process of change in the public sector is influenced by the administrative capacity, the availability and capacity of public organizations to integrate change. Moreover, the whole process of change in the public sector is influenced by the administrative capacity, availability and capacity of public organizations to integrate change.

3. Administrative capacity in Eastern European countries

Capacity is seen as the ability to perform tasks effectively and efficiently (Hilder Brand and Grindle, 1994). Administrative capacity takes into account different types of resources, but also processes. There are authors emphasizing the role of human resources, their capacity being the one that determines the institutional capacity or the administrative system (Mentz 1997).

The term “administrative capacity” is widely used in Europe. Similar expressions are considered “institutional capacity” or “government capacity and performance” (Jürgen Pucher and Haris Martinos 2018).

In Romania, administrative capacity is defined as the set of material, financial, institutional and human resources available to an administrative-territorial unit, the legal framework overarching their activity, as well as how these are capitalized in their own activity according to the competence set forth by law. (Administrative Code, GEO 57/2019).

The administrative capacity assessment represents a process whereby data is identified, collected, analyzed, indicators about public organizations and the overall administrative system are calculated. Administrative capacity is a component of reform (Profiroiu, 2005).

Administrative capacity is required to fulfill the mission of public organizations or to achieve the success of public policies (Ola G. El-Taliawi, Zeger Van Der Wal, 2019). Developing administrative capacity is key to developing and implementing political reforms and improving the absorption of European funds (Matei, 2016).

Administrative capacity was analyzed from the perspective of the absorption of structural funds at EU level, Simona Millo (2007) concluding that "implementation depends on the level of administrative capacity of the regional bureaucracy".

EU regional policy for the period 2014-2020 has focused on 11 key objectives. Objective 11 aims to strengthen administrative capacity, with the financial allocation being proportional to it[8].

Study "A comparative overview of public administration characteristics and performance in EU28, EUPACK Project, 2017" conducts a general assessment of public administration capacity and performance of EU Member States, based on 6 criteria. It can be seen that Eastern European countries have a reduced administrative capacity compared to Western European ones[9].

Under the resistance to change framework in public organizations, the reduced administrative capacity of Eastern European countries and the health crisis caused by the Sars Cov 2 Pandemic, the major challenge is to identify the change model applicable to public organizations and the specific instruments.

To identify the transformations that public institutions should undergo over the next period (a possible administrative model of social distancing), probably applicable in the post-pandemic period, we conducted a questionnaire-based research, which focused on two major directions: public institutions operations and the relationship with the business environment/civil society.

4. Methodology, data, outputs and discussions

The questionnaire was applied in public institutions from 7 Eastern European countries: Romania, Bulgaria, the Republic of Moldova, Lithuania, Latvia, Hungary, Poland, with an equal distribution between the central and local administration. The questionnaire contained six questions in which we aimed to identify how public institutions are affected and the transformations they will undergo in the post-pandemic period, on three levels:

- internal operation;
- citizens relation;
- new public services.

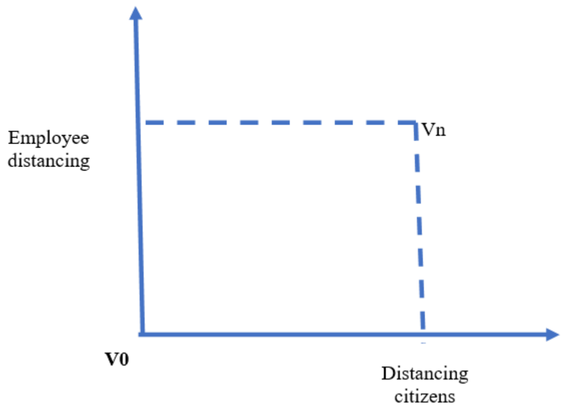
[8] Source: https://ec.europa.eu/regional_policy/ro/policy/themes/better-public-administration/

[9] A comparative overview of public administration characteristics and performance in EU28, EUPACK Project, 2017, p. 58

The first part identified the measures taken by public institutions to prevent the spread of the new coronavirus. These are grouped into three categories:

1. Telework for most employees (between 20 and 80% of employees);
2. Limiting access to public institutions and online interaction with citizens;
3. Protection measures for employees (temperature measurement, masks, disinfectants, staff training on the application of protection measures). Therefore, the main measures aimed at physical distancing on two dimensions: distancing employees from institutions and distancing customers /citizens from them (chart no.1).

Chart no. 1. *Measures taken by public institutions to prevent the spread of the new coronavirus*

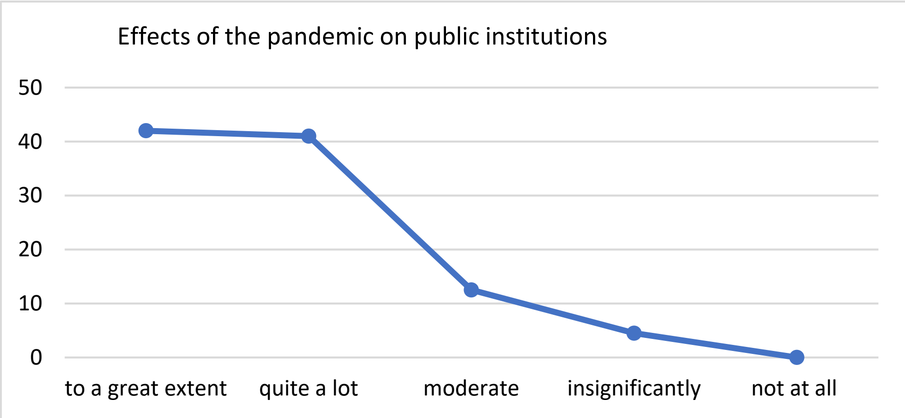


In point V0 where employees work in the institution and citizens have access to the institution premises, increased protection measures are required for both categories and increased expenses too. As the percentage of distance from the institution of employees and citizens increases, the need for individual protection measures (masks, disinfectants, etc.) decreases and the probability of infection generated by interaction with institutions or with working in public institutions decreases.

Therefore, on the short term, public institutions have applied measures of physical distancing, without modifying, significantly changing the work processes or without designing major strategies for change. The measures implemented were mostly applied at the level of the administrative system, through the imperative norm established at the national level.

However, as shown in Chart 2, the representatives of public institutions consider that they will be affected by the pandemic on the long term (either the working methods applied during this period will become permanent or it extends the uncertainty about the duration of the pandemic). No institution appreciates that there will be such influences.

Chart no. 2. *Effects of the pandemic on public institutions*



To assess the perception regarding the **components in the public institutions that will undergo the biggest transformations in the post-pandemic period (fields of change)** a synthetic characteristic is defined according to 8 components: c1 Management methods and techniques, c2 Decision-making system, c3 Relationship with citizens/customers, c4 Internal organization, c5 Human resources, c6 Financial resources, c7 Information resources, c8 Material resources

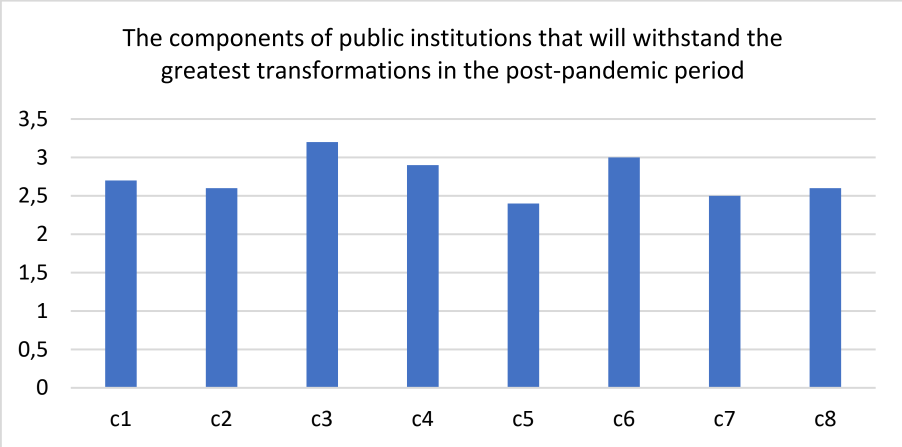
The synthetic variable to measure the perception of public institutions components that will undergo the greatest transformations in the post-pandemic period is defined as a simple arithmetic method of the 8 variables:

$$V: N -> [0,4], V = (V_1 + V_2 + V_3 + V_4 + V_5 + V_6 + V_7 + V_8)/8$$

For each of the eight variables the assigned values are within the set of values {0,1,2,3,4}: the value of the variable equal to zero shows no transformation of the component in the post-pandemic period; the value 1 shows a transformation to an insignificant extent; value 2 shows a moderate transformation; the value 3 shows a rather extensive transformation; value 4 shows transformation to a great extent; The higher the value of variable V, the more changes/transformations will take place in public institutions.

The averages of the eight primary variables calculated based on the recorded values are: 2c1 Management methods and techniques – 2.7, c2 Decision-making system – 2.6, c3 Relationship with citizens/customers – 3.2, c4 Internal organization – 2.9, c5 Human resources – 2,4, c6 Financial resources – 3, c7 Information resources – 2,5, c8 Material resources – 2,6, resulting in V = 2,73 (chart no. 3). V can be seen as an index of change, having an average value.

Chart no. 3. *The components of public institutions that will withstand the greatest transformations in the post-pandemic period*



Component c3 The relationship with citizens/customers has the highest value, 3.2, being in the opinion of the respondents the most influenced by change in the post-pandemic period.

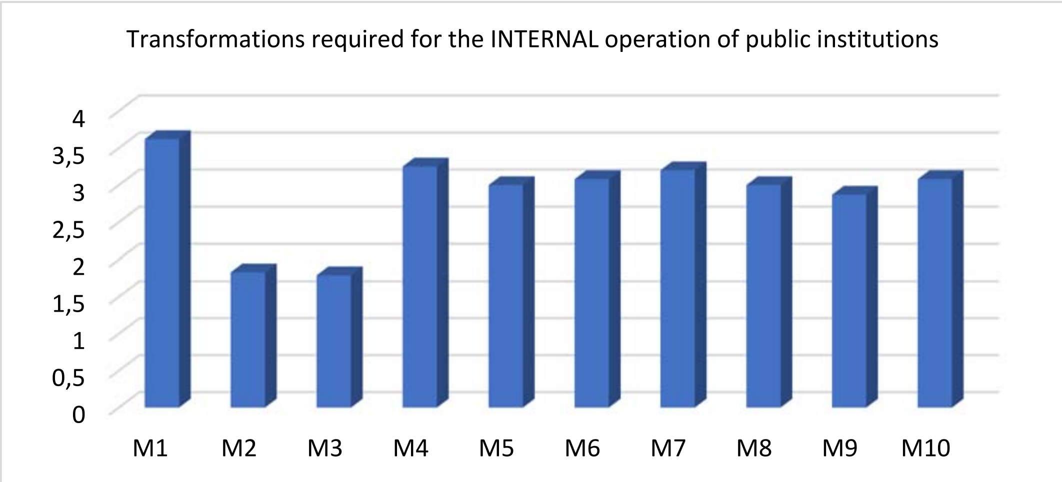
In the post-pandemic period, the INTERNAL OPERATION OF PUBLIC INSTITUTIONS will be subject to transformations, through a series of measures. A number of 10 possible measures have been identified:

- M1 – Digitization of public services at all administrative levels;
- M2 – The number of employees will decrease;
- M3 – The financial resources of public institutions will be diminished;
- M4 – Employees will work more from home;
- M5 – Direct work with the public, at the institution's premises, will be limited;
- M6 – Workspaces will be reorganized so as to ensure the distance between employees;
- M7- The internal circuit of the documents will be fully digitized;
- M8 – The risk registers, plans for emergency situations with elements such as calamities, pandemics, will be generalized;
- M9 – Staff will be frequently trained on tasks and types of reactions in unforeseen cases;
- M10 – Public institutions will allocate significant resources for the acquisition of technology to enable remote work.

And in this case, for each of the ten measures the assigned values are in the set of values {0,1,2,3,4}: the value of the variable equal to zero shows no support for such a measure (total disagreement); the value 1 shows us an insignificant support; 2 shows moderate support; the value 3 shows agreement with such a measure; the value 4 shows a strong support of such measures.

The averages of the ten measures calculated based on the recorded values are (graph 6): M1 – 3.62, M2 – 1.83, M3 – 1.79, M4 – 3.25, M5 – 3, M6 – 3.08, M7 – 3.2, M8-3, M9 – 2.87, M10 – 3.08. Thus, the measure on the digitization of public services at all administrative levels has the highest score – 3.62, followed by employees working from home (M4 – 3.25) and the one on staff cut off registered the lowest score – 1.79.

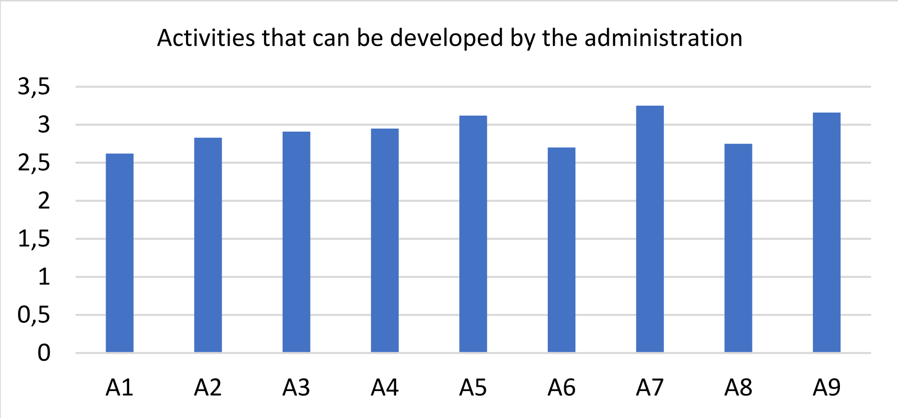
Chart no. 4. *Transformations required for the INTERNAL operation of public institutions*



A similar methodology was used to determine new public administration activities that will develop in the post-pandemic period, obtaining the following scores (chart no. 5):

- A1 – Activities for the ongoing disinfection of public spaces by permanent local public services – 2.62;
- A2 – Population education activities for similar situations – 2.83;
- A3 – Social assistance activities in the area of identification and monitoring of vulnerable groups to various diseases – 2.91;
- A 4 – Making stocks of materials needed in different risk situations – 2.95;
- A 5 – Home care activities for vulnerable people – 3.12;
- A 6 – Vocational guidance and conversion activities for the unemployed – 2.7;
- A 7 – Assistance activities for enterprises affected by the pandemic – 3.25;
- A 8 – Construction, endowment of sanitary units – 2.75;
- A 9 – Acquisition of endowments and equipment for emergency services – 3.16.

Chart no. 5. *Activities that can be developed by the administration*



Therefore, the assistance activities for enterprises affected by the pandemic are not the ones that should be developed by the public institutions in the next period, together with the endowment with equipment of the services for emergency situations.

In order to determine the evolution of the administrative systems from the perspective of centralization/decentralization/autonomy/coordination, a synthetic characteristic is defined according to 4 components. The first takes into account the increase in centralization, the second the degree of decentralization, the third – the autonomy of public institutions and the fourth – the coordination between the components of the administrative system.

The synthetic variable for measuring the perception of the administrative system future is defined as a simple arithmetic method of the four variables used:

$V: N-> [0,4], V = (V_1 + V_2 + V_3 + V_4)/4$

For each of the four variables the assigned values are within the set of values {0,1,2,3,4}: the value of the variable equal to zero shows no support for such a measure (total disagreement); the value 1 shows an insignificant support; 2 shows moderate support; the value 3 shows us the agreement with such a measure; the value 4 shows us a strong support for such a measure.

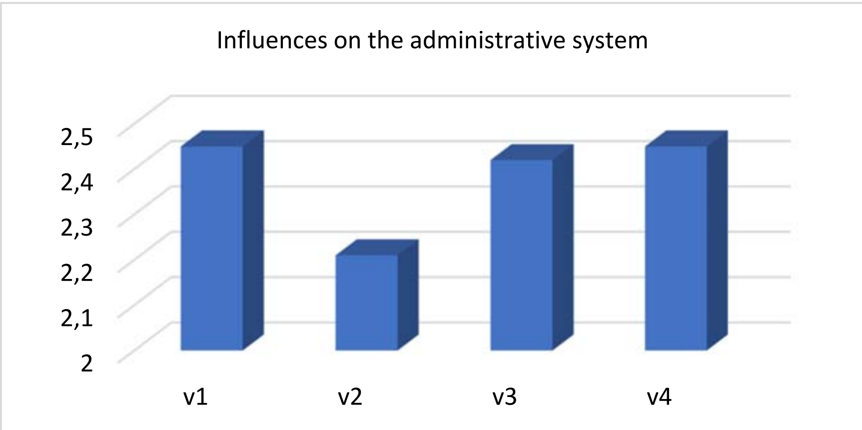
The averages of the four variables calculated based on the recorded values are (graph 8):

- V1 – Increasing the degree of centralization – 2.45;
- V2 – Increasing the degree of decentralization – 2.21;
- V3 – Increasing the degree of functional autonomy of public institutions – 2.42;

- V4 – Improving the coordination mechanisms between the system components – 2.45.
- V = 2.38, which shows a balance between the four variables.

Therefore, the increase in centralization has a higher value than the increase in the decentralization, on a par with the improvement of the coordination mechanisms between the system components. Respondents therefore believe that the administrative system, in the context of the pandemic, will be subject to a process of increasing centralization.

Chart no. 6. *Influences on the administrative system*



Conclusions

To conclude, there have been identified five categories of measures regarding the social distancing of public institutions, many of which are already being implemented by administrations around the world: more and more employees are working from home, delayed digitization processes are under way, new working tools have been developed, contingency plans have been implemented, public access to public institutions has been limited, measures have been taken to ensure the protection of employees 'health, emergency services have been developed which target the protection of individuals and those in the field of public health.

Public institutions seem to be in the process of reinventing themselves to deal with a new situation, looking for new ways of working and the priorities of public actions have changed. The current crisis could lead to a radical transformation of public institutions and a new hierarchy of public needs.

The quasi-unanimous administrative reforms militated for the approach of the administration to the citizen, which, in the era of social distancing, is translated in the approach of the services and the physical distance. This approach needs to be redefined in the new context. The physical removal of citizens from public institutions could lead, over time, to institutions no longer being identified by their premises/headquarters, buildings and physical space, but by the electronic services they provide.

The current organizational set up could be turned into a network, in which groups of employees work online, in different spaces, and the authority and symbolism of the premises would diminish being detrimental to the increase in public services quality.

Digitalization, working from home, will change the administration-citizen relationship radically, the direct interaction being more and more limited.

Public institutions will allocate more resources to activities such as home care for vulnerable people, assistance to businesses affected by the pandemic, the purchase of facilities and equipment for emergency services.

The centralization/decentralization/autonomy/coordination relationship is maintained at an optimal level, but with the centralization of decisions regarding the overall protection of society and the decentralization of decisions on the working method and procedures in public institutions.

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Public Service and Efficiency Challenge in Nigeria

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Abstract. *There is a saying that no country develops beyond the capacity of its public service. Hence, public service provides the total services for the well-being of citizens under the government budget. When citizens' well-being is provided, their reliance on government is assured. In Nigeria, public service has not been able to provide adequate service for the well-being of citizens. This article examined the causes of public service efficiency challenge in Nigeria and offered remedial actions. The study is theoretical and it obtained data from textbooks, journals, newspapers and the internet while the data analysis was done through the descriptive method. Adopting the functionalism theory as the article theoretical framework, public service was identified as structured into ministries and parastatals to properly serve the public; but, it has failed to perform as expected. Among others, the article found bad leadership, crisis of governance, disrespect to rules, institutionalized corruption, poor professionalism, and intermingling public interests with politics as causes of public service efficiency challenge in Nigeria. The article concluded that without a determined and active government leadership who must have public interest; willing to repel bad governance and institutionalized corruption, any attempt to improve efficiency of public service in Nigeria will only result into building a castle on the air. It recommended that Nigeria should have a determined and active leadership who will promote rule of law and good governance among others.*

Keywords: *public service, efficiency, governance, government, leadership, rule of law, development, good leadership.*

JEL: J48, D73, H83.

1. Introduction

In all parts of the world, governments maintain a sustainable and efficient public service that will be competent and good enough to provide services, which are needed to achieve the well-being of citizens and develop the country. Hence, a country cannot develop beyond the capacity of its public service. Again, it is when the needs of citizens are guaranteed that government enjoys their trust. This puts public service in the commanding heights of governance as, without it, the government will be constrained to achieve the goals of the state or properly and successfully serve the public. This means for the government to efficiently govern a country, it must first maintain nation public service to be in proper perspective to provide the totality of services needed to ensure that the socio-political, cultural and economic life of its nation is viable. The public service is structured into civil service that comprises the ministries and the parastatals, which consist of extra-ministerial agencies. All of these consist of institutions and employees of federal, state, and local governments. It is envisaged that with proper maintenance and control of public service, identification of blurring activities; the initiatives and responsibilities for tacking them will earn Nigeria the status of good governance.

However, available literature showed that most ministries and extra-ministerial institutions in Nigeria are defective. This presented the nation's public service as inefficient. Consequently, many people are forced into a hybrid of poverty and insecurity. Hence, Wantu (2019:8) documented that. "Over three thousand, five hundred and fifteen (3,515) IDPs at Mbawa IDPs Camp in Guma Local Government Area of Benue State are crying of hunger, diseases, and lack of accommodation in the face of heavy rains. The chairman of the camp; not less than eight (8) people died recently of hunger. A child by the name Nani got missing in the camp in March 2019 when he went to search for food. A lady in the same camp known as Iorhemba gave birth to a baby girl in the camp's clinic and the only thing she got was a nappy." Similarly, Okebukola was cited by Nwolise (2019:2) saying:

> *"A situation in which the freedom of people is threatened; social-economic abilities are limited; fear becoming part of their daily living; increased threats to persons of certain beliefs or religion presents grave implications for human security and development. The Boko Haram insurgence in*

Nigeria has continued to limit the economic potential of the country. Right to life, freedom of speech, movement, religion and association is hampered. The fear of suicide bombing and invasion of communities by herdsmen and displacing of citizens from their ancestral homes and other armed men now pervade the air. Teenage boys and girls are being used as suicide bombers."

According to El-Rufai (2013:315) broad consensus amongst Nigerians labelled public service in Nigeria as dysfunctional and broken. As he said, "the quality of public servants and the services they provide to Nigerians are both below expectation and our public service is more recently perceived as an employer of the dull, the lazy and the venal." But, why does government leadership allow the public to be broken when it is apparent that public service provides services, which take care of citizens from their womb to tomb? Okoye & Oghoghomeh (2011:1) argued that "reliance on efficient service delivery of public service to citizens in most developing countries has always resulted in disappointing results."

There is an African adage that "if a wall did not crack, a lizard cannot enter." Also, there is another saying that "if a house did not fall, a goat cannot climb the roof." From the discourse above, it seems to be obvious that the public service in Nigeria has broken. Hence, none of its structure has been functional. For instance, the Academic and Non-Academic Unions of Universities for the poor educational system by government poor healthcare services; total breakdown of internal security, electricity and water sectors among others have put Nigerian citizens into despair. But, now that public service in Nigeria has crossroads and is broken, what can we consider as the causes and the remedial actions? These are the two issues this article set to address. To achieve these, the article was structured into six. The first is the introductory part whiles the second, third and fourth parts discussed methodology, theoretical and conceptual issues. The last two parts examined the causes, conclusion and remedial actions of the public service efficiency challenge in Nigeria.

2. Methodology

This article is a theoretical study. Hence, it adopted a survey design to look at the causes of the public service efficiency challenge in Nigeria and its remedial actions. Data for the study were obtained from relevant published textbooks, journals, newspapers and the internet. The data collected was analysed through the descriptive method.

3. Theoretical Framework

The article adopted the functionalism theory as the theoretical framework. Emile Durkheim, Talcott Parsons, Robert Merton, David Easton, and Herbert Spencer included the frontier associates of the theory, which covers a range of issues and perspectives. In all, two of its assumptions were related to this paper. First, it described organised societies as complex entities with established institutions to maintain them (Talcott, 1937). This is exactly the situation in Nigeria. The government, therefore, established and maintained public service to provide the totality of services to properly manage the diverse interests of Nigeria. As Ayida (1987:47) describes it, public service "is aimed at making Nigeria a united, strong, and self-reliant; a great and dynamic economy; a just and egalitarian; a bright and full opportunity for all citizens; a free and democratic society."

But, how can the citizens' well-being and national survival be guaranteed when the nation's public service is defective? Again, how will a country whose citizens have been living in fear of being attacked, kidnapped, killed, bombed, and displaced by Boko Haram Islamic sects and herdsmen alleged to be Fulani be strong, great and united? To be more liberal, can a nation that is full of marginalised, injustice, nepotism, or agitating for separation has a dynamic economy or equal and bright opportunity for progress? This supported Nwolise (2019) that Nigeria is beset with hunger, squalor, poverty, unemployment, homelessness, and lawlessness, and the youths are running away in thousands abroad through the desert of Morocco to Spain to struggle for their survival. In their unanimous opinions, Odekunle (2014) and Udende (2014) described all of the above as clear manifestations of the dysfunctional status of public service in Nigeria.

The second assumption, which is related to this article, is that disorder, lawlessness, and decay in the value system are effects of broken public service (Durkheim, 1933). Ayida (1987) was alarmed because public service in Nigeria is at a crossroads and nothing is working fine in Nigeria. This was supported by Akowonjo (2004:1) when he said:

> *"It is a known fact to everybody that the security situation in Nigeria has degenerated to an epidemic proportion. Nobody seems safe any longer. The upsurge in crime, degeneration of public order and the very disturbing level of threat to peace and stability in recent times has been a source of concern and challenge to democracy, national survival, integration and development. The list of criminal acts in this country is endless. Among others, it includes assassination, kidnapping, arson, organised armed robbery, vandal, ritual acts, financial crimes, fraudulent acts, impersonation, economic sabotage, political brigandage, prostitution, cultism, women trafficking, drug abuse, examination malpractices, bullying, rapping and assault in all parts of Nigeria."*

The repercussion of the government's failure to maintain an efficient and functional public service has continued to develop and grow dreadful daily. Okere & Adedipe (2022:1-2) documented the lamentation of the Monarch of Uromi, Anslem Odaloighe Eidenojie II, over the reckless killings of his subjects when bank robbers invaded Uromi. As he was quoted, "the situation was like a war zone. It lasted for over two hours. The robbers took control of the area and killed my subjects."

4. Conceptual Issues

The clarifications of conceptual issues that intermingle with the subject of discourse are what were examined in this part to add value to this paper.

4.1. Public Service

In his attempts to locate its meaning, Erediauwa (2004:169) said "public service in its technical sense is used to refer to all posts for which financial provision is made in the government budget." For Mbah 2003:51), public service is made up of civil service and parastatals. It means the services of employees either political or technocrats in federal, state, or local governments are called public service. This is similar to Nwizu & Nwapi (2011:20) who cited Adamolekun saying that "the totality of services organised under government authority." But Egugbo (2020) said public service can be used in two senses. The first sense is as the institution of government to serve the public while the second sense is as a service delivered by government to the citizens.

Section 318 (1) of the 1999 Constitution of the Federal Republic of Nigeria defined civil service of the Federation, civil service of the State, public service of the Federation and public service of the State one by one.

Firstly, the Constitution defined civil service of the Federation as service of the Federation in a civil capacity and it includes the staff of the office of the President, the Vice-President, a ministry or department of the Government of the Federation assigned with the responsibility for any business of the Government of the Federation (the Federal Republic of Nigeria, 1999).

As defined by the Constitution, civil service of the State means service of the Government of a State in a civil capacity and it includes the staff of the office of the Governor, Deputy Governor, or a ministry or a department of the Government of the State assigned with the responsibility for any business of the Government of the State (the Federal Republic of Nigeria, 1999).

Secondly, the Constitution described public service of the Federation as the service of the Federation in any capacity in respect of the Government of the Federation, and it includes service as:

- *Clerk or other staff of the National Assembly or of each House of the National Assembly;*
- *Member of staff of the Supreme Court, the Court of Appeal, the Federal High Court, the High Court of the Federal Capital Territory, Abuja, the Sharia Court of Appeal of the Federal Capital Territory, Abuja, the Customary Court of Federal Capital Territory, Abuja, or other courts established for the Federation by this Constitution and by an Act of the National Assembly;*
- *Member of staff of any commission or authority established for the Federation by this Constitution or by an Act of the National Assembly;*
- *Staff of the area council;*
- *Staff of any statutory corporation established by an Act of the National Assembly;*
- *Staff of any educational institution established or financed principally by the Government of the Federation;*
- *Staff of any company or enterprise in which the Government of the Federation or its agency owns controlling shares or interests; and*
- *members or officers of the armed forces of the Federation, the Nigeria Police Force, or other government security agencies established by law (Federal Republic of Nigeria, 1999).*

According to the aforesaid Constitution, public service of a State means the service of the State in any capacity in respect of the Government of the state and it includes services as:

- *Clerk or other staff of the House of Assembly;*
- *Member of staff of the High Court, the Sharia Court of Appeal, the Customary Court of Appeal or other courts established for a State by the Constitution or by a law of a House of Assembly;*
- *Member or staff of any commission or authority established for a State by the Constitution or by a law of House of Assembly;*
- *Staff of any local government council;*
- *Staff of any statutory corporation established by a law of a House of Assembly;*
- *Staff of any education institution established or financed principally by a government of a State; and*
- *Staff of any company and enterprise in which the government of a state or its agency holds controlling shares or interests (Federal Republic of Nigeria, 1999).*

From the clarification above, it is very clear that public service in Nigeria is made up of civil service that carries out ministerial functions to serve the citizens in the federal, state, or local capacities as well as its allied extra-ministerial agencies that also serve citizens through the federal, state, or local in any capacity, which are financed under government budget (Federal Republic of Nigeria, 1999; Erediouwa, 2004).

4.2. Efficiency

To clarify the concept of efficiency as it relates to public service, what comes to mind was the thought of Wilson (1887:197) that efficiency in public service is concerned with, "what government can properly and successfully do, and how it can do these proper things with the utmost possible efficiency and at least possible cost either of money or energy." In this context, government is principal factors that can make public service do things properly and successfully.

So, for public service to be efficient is concerned with the capacity of government leadership to make its public service fit, sound, competent, functional and efficient to serve public interest and wellbeing of Nigeria (Iwueke & Agu, 2012). This informed the argument of Ijiekhuemhen (2013) proper and efficient working of public service is determined by the proper maintenance and effective control of public service by government leadership. Francis (2021) digressed a little when he said a leader that is preoccupied with his personal interest would not likely maintain a functional public service.

4.3. Governance

As Stoker (2002) noted, governance includes development styles of governing with boundary between public and private domains. In this sense, governance is about mechanism, which do not only rest on the choice of authority and sanction of government, but it rests on the actual toning, ordering and enforcing rules or regulations for things to happen and happen well in an organised system. It is in this aspect that Rhodes (2007) defined governance as process of institutions and actors within and beyond government to collectively involve in decision-making to control and direct public affairs.

In his efforts to locate the meaning of governance, Peter (2000) simply digressed little to discuss the characters of most institutions and actors of governance whose inefficiency have brought about some unfair hardship to common Nigerians. He then, aligned that governance is a process of ordering of things to occur in a public setting. That it embraces more about achieving the greater efficiency in the production of public services for common satisfaction and betterment of people and their nation. This supposes that whatever rule, policy, regulation or direction of government; it must not fail to produce satisfactory outcome for the citizens. Defined in this way, governance entails promotion of productivity in public service to ensure stability, safety, welfare and public order (Waziri, 2009).

4.4. Government

In this paper, government is clarified from the angle of governing institution. Used in this perspective, it is the machinery put in place with vested power to establish and maintain public service to produce all the needed services to govern Nigeria and achieves its ends. These ends are the objectives prescribed in sections 13-24 of the 1999 Constitution of the Federal Republic of Nigeria. For the avoidance of doubt, these ends are often called fundamental objectives of the government (s.13); the government and the people (s.14); political objectives (s.15); economic objectives (s.16); social objectives (s.17); educational objectives (s.18); foreign policy objectives (s.19); and environmental objectives (s.20). Others are defined as directives on Nigerian cultures (s.21); obligations of mass media (s.22); national ethics (s.23); and duties of citizens (s.24). Section 318 (1) of the extant Constitution directed the federal, state, and local governments or those who exercised government authority to direct public service towards achieving the ends set for Nigeria.

But today, government seems not have taken its proper responsibility in making public service to be functional (Agagu, 2007). To make the matter worse, many top government officials do not tolerate blames on poor performance. Duru (2022:1&6) documented the suspension of Imam, Sheikh Nura Khalid for criticising President Muhammadu Buhari over his poor handling of insecurity challenge in Nigeria. As he puts it, Ademola Kasim said, "Our leaders hate to hear the truth; but, the truth must be told. President Muhammadu Buhari government has failed. He is currently presiding over the worst killings and insecurity ever recorded in the history of Nigeria." According to Ojoye (2019), the fans of a country's football blamed the coach for persistent losing marches and not the players.

In line with the above, Ojoye and Folarin (2018:5) documented the lamentation of Ikola Ilumo residents of Lagos that "they got bills which did not reflect their power consumption adding that when there was power, the current was either 'too high or too low." Like the security, is it not the federal government that superintend the electricity supply? Or is it not the President that appointed the minister who is answerable to him. The inability of the government to maintain the Nigerian public schools has made elites Nigerians to abandon public schools to taking their children to schools abroad.

On the aspect of insecurity, Dada (2021) reported that on September 7th, 2021, a bus that conveyed twelve passengers was attacked by bandits on a bad portion of the Ido-Ani, Akoko road. Three out of the passengers were kidnapped while other nine ran into the bus with multiple injuries. Similarly, the Olufon of Ifon, Oba Israel Adeusi was killed by the bandits on the Owo-Benin road at a bad portion. In all of these, who else will the members call for protection? In as much as no responsible government or its leadership would want to fail the people, but the leadership has a duty to take responsibility to tolerate praises or blames.

4.5. Development

The concept of development conveys different meanings to different people. But, Okonkwo (2008) argued that in whichever perspective one tries to define it, one or more words like change, growth, progress, enhancement, improvement, advancement, and expansion among others must be mentioned. Ake (2001) saw development as a process by which people create and re-create themselves and their life circumstances to realise higher levels of satisfaction and benefits in accordance with their own choices and values.

Rodney (1972) looked at development from the levels of individual and society. At the level of individual, it means increased skill and capacity, greater freedom, self-reliance, self-discipline, improved creativity, responsibility, and material well-being. At the level of society, it is used to refer to an overall social process that is dependent upon the outcome of people efforts to deal with their natural environment. In this regard, the concern of citizens is to efficiently exert their efforts toward achieving better and optimal satisfaction of the environment. In this case, development goes beyond economic and social aspects to include improvement of resources and positive change in all the activities to have increased access to good food, water, electricity, road, shelter, health-care facilities, education, freedom, and justice among others.

As it concerns with this article, it means regular improvement of public service in the proper production of safety and welfare services for Nigerians and assuring their satisfaction. Secondly, it has to do with the reasoning capacity of government leadership to develop and reform public service ahead of complex unforeseen situation for it to properly perform always without challenge.

4.6. Leadership

Section 130 (2) of the aforesaid Constitution, defined the President as the Head of State; the Chief Executive of the Federation; and the Commander-in-Chief of the Armed Forces of the Federation. Therefore, the overall maintenance and assurances of proper functioning of public service in Nigeria is vested on the President as the Chief Executive of Nigeria. So, as leadership of the federation, he is accountable for the rise and fall of the nation's public service. To avoid vacuum and enhance his efficiency, section 171 (1) of the Constitution empowered the leadership to appoint persons to manage the affairs of public service under his watch and to remove persons so appointed especially those who are found not competent.

In Nigeria of recent, public service perform so low. The citizens are suffering perpetually for the acute short of public service delivery to them and the blame has been on the leadership. As noted in Ujo (2002:59) "effective leadership is an important input to any successful organisation. This in totality supported Drucker (1954) who described leadership as the most important input for every organisation to do well. A leader is meant to lift people's apparition to a better sense and to raise their performance ability to best standard. A leader is also meant to maintain and build workers' personality over and above their normal strengths. Because a leader is saddled with the task of influencing and motivating people to willingly work towards achieving efficiency in every organisation, a leader is defined as a goal getter (Enahoro, 2010).

4.7. Rule of Law

The concept of rule of law is not defined in this article to identify with the legal rule that can be enforced in court. It is rather, about an embodied principle in which power must be exercised for public service to serve the citizens well in Nigeria.

Section 1 (1) and (2) of the excising Constitution described the Constitution as the highest law of Nigeria. It directed all its provisions to be binding on all authorities and persons throughout this country. Subsection (2), directed the Federal Republic of Nigeria not be governed and persons or group of persons should take control of the government of Nigeria or any part thereof, except in accordance with the provisions of the Constitution. Section 13 directed all organs of government and other authorities and persons exercising legislative (s. 4), executive (s. 5), or judicial (s. 6) powers to conform to, observe and apply the provisions of law.

Dicey (1951) described the rule of law as a set of accepted guiding principles in three folds. The first is absolute supremacy of law. This means that everybody is under the law. It is a total subjection to law in which every action taken by every ruler and the ruled is based on law (Hogan, 2008). The second fold is the equality before the law. This means equal application of law to everybody. It prevents discriminate or vindictive treatment by law enforcement agencies. However, section 308 (1) (a), (b), and (c) of the Constitution excused the President, the Vice President, the Governor, and the Deputy Governor from institution of criminal or civil cases while in office. The third emphasised the preservation of individual freedom and frowned against fundamental rights abuses as prescribed in sections 33-42 of the above named Constitution.

Despite all of the above, many people including government leadership still violate the law. Akpotor (2015:111&112) observed that the Obasanjo presidency of 1999-2007 was a mirage for lack of respect for rule of law. In his word, "under

Obasanjo, the executive was interpreting court judgement in the manners suitable to it only. His third term bid made him to turn Ribadu led Economic and Financial Crimes Commission (EFCC) to a tool of political vendetta."

4.8. Good Governance

In the world of today, the term 'good governance' is now a household name. This emphasised the task of government to maintain its public service to produce service delivery to citizens to live happily and comfortably well in a world without a war. Many extant literatures support this claim. Gisselquist (2012) brings to mind the erstwhile United Nations Secretary-General, Kofi Annan, observation that good governance is the main important factor to exterminate poverty and promote progress. Accepted in this sense, bad governance is a root cause of anti-progress, living between hands and mouths, low standard of living, squalor, hunger, and all cankerworm evils bedevilling public service efficiency, growth and development and inability of government leadership to direct public affairs for public interest and better life of people and the nation.

Analytically, almost the above features and other related issues earlier discussed have been used by different public organisations in their attempts to provide efficient delivery to citizens without impressive outcome. The triple 'H' efficiency principles of hard-work, honesty, and humility adopted by IGP Suleiman Abba and later reinforced by the IGP Solomon Arase partnership and team-work spirit principles were some few good examples (Abba, 2014; Francis, 2021). Yet, one is very troubled that nearly all the public institutions in Nigeria have continued to function not fairly well and in fact their inefficiency in service delivery are getting worse daily (El-Rufai (2013; Udende, 2014; Nwolise, 2019; Okere and Adedipe, 2022).

5. Causes of Public Service Efficiency Challenge in Nigeria

To determine the actual causes of public service efficiency challenge in Nigeria, the views of intellectuals that have done study related to the subject-matter were considered. Some of them blamed them blamed the causes on corruption, political disorder, and poor remuneration and fringe benefits in the service. According to El-Rufai (2013:322), "the deterioration of pay and fringe benefits relative to the high cost of living has been a contributory factor to deficient public service in Nigeria.

There are some other thinkers who blamed the prevalent socio-economic crunch and insecurity confronting Nigeria as factor. They argued that stable and improved socio-economic situation is a precondition for efficient public service. Akpotor (2015) said it will only be a mirage to expect efficiency of public service in Nigeria that Boko Haram, Fulani herdsmen with other criminals cannot allow people to have rest of mind to the extent that they cannot go about their lawful duties and the unending strike, fuel scarcity and total security breakdown have been worrisome.

While this article is aimed at knowing the causes and solutions to the broken of public service in Nigeria, it will not serve its interest to disagree with any of the above factors. At least, if leadership failure and its repercussion for bad governance that is a root cause to all bad things, the causes identified by the thinkers should not be ignored. This also supported Chandan (1989:215) that “the principal cause of organisation failure is ineffective leadership.”

When the principles of professionalism, transparency and accountability in the public service were frustrated by the leadership desires to give job to his thugs boys and party loyalists how will public service not crossroad (Mbah, 2003)? The deficient status of public service and its ministries or parastatals will always deteriorate while citizens will suffer more deprivations where their needs are continually taken for granted by placing priority over politics than wellbeing of people and flurry of unqualified people as public servants.

In addition to the factors discussed above, the article also saw weak Institution of Government, challenge of political leadership, disrespect to rule of law, poor maintenance of public service and effects of bad governance as other causes of public service challenge in Nigeria.

5.1. Weak Institution of Government in Nigeria

The inability of government institution for the past many decades to develop enthusiasm for proper reforms that will be good enough to reposition and ensure a functional public service has had a prolong negative effect on public service efficiency. According to El-Rufai (2013:315/316) the quality of public the servants and services they provide to our country are both below expectations and the pay of Nigerian public servants was too low in relative to the cost of living. It is this debility of government institution that causes the jamboree of lazy and dull people as public servants who become more burdens and liabilities rather than assets to public service in Nigeria.

5.2. Dynamic Problem of Political Leadership in Nigeria

The traits a leadership should possess have been a tropical issue across the world for many decades. As the issue continues to linger, a scientific research around the twentieth century was carried out. Its major focus was on the factors that can make leadership active and efficient. In Nigeria, especially in recent times, leadership inefficiency was more tropical. The process was hijacked into extraordinary warfare where politicians employ offensive means unknown to law to pursue and grab leadership position. Eventually, this habit made politics in Nigeria to be turned into a notorious game in which leaders have become dealers. It is not unlikely that people who do all manners of odd or fetish things and breached law to occupy leadership in government would run anti-people government and this has been a major cause of efficiency problem bewildering public service in Nigeria. This agreed with Nwolise (2019:100-101) who said, "Maybe our leaders in their in-fighting and struggles over natural resources, have not noticed the great malady Nigeria is currently facing." The question here is for public interest when a politician engaged the services of armed thugs to kill citizens, scatter pooling units and snatch ballot boxes, and violate rules to grab political leadership to govern? Or how has the in-fighting to retain political powers and struggles to share the nation's natural resources helped to improve maintenance of public service?

As noticed in El-Rufai (2013:314) since 1999, President Obasanjo had intended to reform the public service. In fact, he initially had a Minister for the civil service (Bello Kirfi, Waziri Bauchi), but nothing appeared to have come out of it. In 2001, a human resource audit of the Federal civil service at the behest of the International Monetary Fund (IMF) revealed that about twenty percent (20%) of the nominal roll consisted of ghost workers. Nothing was done about the audit, and like most other things related to the civil service, these and similar abuses continued quietly growing unabated.

5.3. Abuse of Principles of Professionalism

One other great problem that affects public service efficiency in Nigeria is discontinuation of practice of professionalism. This is one of the benefits of the 1988 Dotun Philips Commission on Public Service Reform in Nigeria. Its introduction has to a large extent tremendously reduced the large number of unskilled public servants as well as ghost workers in erstwhile Musa Yara' Adua and Goodluck Jonathan administration. Today, the practice of professionalism is not observed as usual in Nigerian public service. Before now, the posting of Ministers, Permanent Secretaries, Ministries or Head of Parastatals are to their field of specialisations. Ajayi (2019:5) documented the maiden visit of Minister of Interior, Ogbeni Rauf Aregbesola when he told top officials of his Ministry that apart from the stories he read about the Ministry on the pages of the Newspaper, he had no idea of its policies and operations. As he was said to have put it, “My relationship with this ministry is distant. What I know about the ministry is what I read in the Newspaper.” This is in contrast to Wilson (1887:201) saying, “Seeing everyday new things, which the state ought to do, the next thing is to see clearly how it ought to do them.” This seeks for skill of administration to improve the course of government and reform its services production to be purposeful and efficient. If a Minister is posted to head a ministry in public service, which he is not familiar to the policies and operations, is he expected to go and learn everything about his ministry from his subordinates? How will he be able to make decisions on some emerging critical issues? At least, every minister requires intellectual thinking ability to attend to complex policy matters and make appropriate decisions. So, a minister cannot just be posted to a ministry and expected to enter his office just to wear ‘agbada,’ read newspaper and collect salary.

5.4. Disrespect to Rule of Law

The manners in which people abuse law in Nigeria is another cause of public service challenge. There will be no gainsaying the fact that no society prospers without respect to law. It follows that law creates a state and set its objectives; law establishes government, defines its functions and obligations of citizens. It also lay down governance process. Therefore, law is an inevitable instrument of social control. It promotes the proper and successful doing of things in every organised society. In the contemporary Nigeria, most people including top government have no respect for rule of law. To make the matter worse, some government officials behave as if they are even above the law. This makes people to do things that are unknown to law while impunity has become the order of the day. So, it will not be out of place to experience dysfunctional public service in a country that almost everyone is lawlessness. According to Olaniyi & Oyewale (2021), the Oyo State Governor, Seyi Makinde, argued that when injustice becomes law, resistance will be a duty. This is in tandem with Apaokagi (2014:118) that “the involvement of government in subverting the rule of law is why it has lost all moral rights of law enforcement in Nigeria while impunity in high and low places is the order of the day."

The Election Working Group of the Nigerian Bar Association (2008:3) alleged the Obasanjo administration for showing an uncommon disdain for the rule of law. As it puts it, "decisions of the executive were simply bulldozed through the National Assembly. Powers of the state government were usurped and there was a general feeling that government was above the law."

This situation has not even improved as at date. According to the 1988, Public Service Reforms, the public has the right to know the operations of the public service (civil service) and to criticise bad and corrupt administration (Akpotor, 2015). But, as noted earlier, in Nigeria today, citizens are not free to complain about their welfare or criticise bad governance. As noted in Olokor (2019), Governor Dave Umahi of Ebonyi State warned his aides through his media assistant, Francis Nwanze either to desist from making any negative remarks against Buhari government, or face dismissal. Duru (2022) also documented the removal of an Imam that criticised President Buhari's failure to repel the ravaging insecurity in Nigeria, which was discussed earlier in this paper.

5.5. Culture of Poor Maintenance of Public Service

The poor staffing and inability of government leadership to reposition public service with its unattractive conditions of service for public servants among others are factors that facilitated the of public service into crossroad and dysfunctional status. Yet, the terrible outbreak of insecurity and poor quality of living conditions, have continued to bite Nigerians harder on daily basis as public service continues to dwindle in efficiency. But, in all of these, it may not be credible to excuse the government and its leadership from the breach of its statutory responsibilities under section 14 (2) (b) of the extant Constitution. To be specific, will the inability of the government leadership to maintain a functional public service not lead to its efficiency problem? Or on a lighter note, why has the government leadership not been able to make public service to serve the need of the public and yet it cannot tolerate public complaint? There is Africa saying that "one cannot beat a man and said he should not cry." Among others, Duru (2022:1&6) documented how most people were unhappy about the victimisation of some people who criticised government over poor governance. As he reported it, Joseph Ibeabuchi said: "what we have today is like we do not have a government in place because the President has failed to ensure security for Nigerians. So, what the Imam said in his sermon is nothing but the truth. I even heard that they have removed the Imam for preaching that sermon, but they are wasting their time because the preacher will be vindicated before God and man." The question here is, who else can people that are held captive by Boko Haram terrorist, herdsmen killers, other banditries and socio-economic predicaments direct their complaints about their state of insecurity and hardship to; apart from government and its leadership? These are contextual issues that have been militating against the efficiency of public service in Nigeria.

5.6. Effects of Bad Governance

The efficiency of public service in Nigeria is being challenged with the effects of bad governance in Nigeria. Bad governance is the root of all evils (Anifowose & Enemuo, 1999). Thus, it will be a daydream to expect efficiency from the public service of a country that is being poorly governed. The public service that has been dominated with dull and lazy public servants how will it be efficient? Again, how will intelligent and brilliant graduates be encouraged to work in where public servants are paid low salary, which is far below cost of living conditions in Nigeria? All of these are manifestations of bad governance. Hence, public service efficiency challenge is a feature of bad governance (Gisselquist, 2012). As noted in Duru (2022), the attack on Benue State indigenes by the herdsmen has brought the number of Internally Displaced Persons (IDPs) Camps to twenty-seven (27) with about two million IDPs in a State of twenty (20) Local Government Councils cannot been excused from effect of bad governance. With this kind of helpless situation, how can public service function efficiently in that part of Nigeria?

6. Conclusion and Remedial Actions for the Public Service Efficiency Challenge in Nigeria

The article investigated the causes of public service efficiency challenge in Nigeria and offered remedial actions. It found public service as a critical institution of government that provide the totality of services needed by citizens from their womb to their tomb. It discovered that the usefulness of public service was not given enough attention by government as it was poorly maintained and controlled. This in turn has caused its inability to be efficient, which has led to untold hardship, invasive threats, and pitiable status of life to citizens. However, the paper found lots of leadership lapses as the causes of public service challenge in Nigeria. The public service was allowed to operate with dominance of lazy and dull public servants who are incompetent to work in this essential institution.. Similarly, the conditions of service are very unattractive to encourage brilliant, intelligent, skilled and talented Nigerian graduates to apply for employment. From this study, the leadership does not even know when and where to actually draw a line of demarcation of welfare and political issues for appropriate and proper decision-making as well as necessary policy development, formulation and implementation in public service. This challenge has caused several inconclusive public service reforms and making it difficult to reposition and maintain a functional public service in Nigeria. In all, the article further found among others causes as the weak institution of government, lack of professionalism, disrespect to rule of law, and effects of bad governance as causes of public service efficiency challenge in Nigeria.

In the light of the above findings, the article concluded that unless the competence and efficiency of government leadership are first determined to repel its bad governance that is the root of all the causes found in this study, other remedial actions for public service efficiency challenge in Nigeria will be tantamount to a daydream. The article recommended other remedial actions for public service efficiency in Nigeria as follows:

1. The effectiveness of any government is to a large extent determined by the efficiency and competence of the public service. This is very important when it comes to prompt implementation of policies. Implementation of any policy cannot be meticulous unless there is machinery to monitor the implementation processes and provide feedback to the appropriate authority for assessing the success of the policy that is being implemented. This can only be feasible with a leader who is prepared to serve the public interest and run good governance. Those to lead Nigeria should be people who genuinely have public interest and with ability to reform and maintain a functional public service. The leadership should set up active implementation monitoring machinery for major policy decisions. To do this, there should be surgical reform to reawaken, redefine, reposition, and redesign the framework to activate the present weak government institution in Nigeria. This will require the realignment of some institutions' overlapped functions and duplication, particularly at the federal

government level. This is to avoid wastage of public resources in all ramifications to enhance efficient public service and good governance in Nigeria.

2. The idea of the government privatising core public enterprises such as electricity presumably to increase service delivery to the public and better management of those enterprises should be well reconsidered. While this article is aware that there will continue to be a need for a spirited private sector to complement the public service for good governance, it was out of place to abruptly privatise such sensitive and core public enterprises that are necessary and required to lubricate the socio-economic order, which were distressed by the weak institution of government and with the public service that have crossroad and dysfunctional by defective leadership in Nigeria. The remedial action is based on the fact that efficiency of private sector depends on the efficient of public service. It is not just in terms of provision of infrastructural services but the ability of the appropriate public service to respond well to those complex needs of industry and commerce in the private sector. The conditions of reward in the public should be unattractive. This will stop the experience, best talents, and skilled manpower from migrate in large number to other countries where better labour reward exist.

3. There should be law to prosecute fail leadership in Nigeria. To achieve this, a leader should quietly resign when it is evident that he cannot govern well without penalty. But, where such a leader has failed to honourably relinquish power, he should at the end of his tenure be apprehended to account for his bad governance under the remedial offences including vicarious liability (1) causing death of citizens in Nigeria, (2) causing grievous harm to Nigerians (3) failure to protect and secure the Nigerian citizens and property (4) causing economic sabotage in Nigeria and making life poor and hard for Nigerians (5) corruption and tolerance for bad governance (6) gross negligence (7) failed governance and causing disorder. While in (1) to (4); the offender should be sentenced to death by hanging on conviction and in (5) to (7), the offender should be sentenced to a term of imprisonment for life with hard labour. Any failed leadership of the federation of Nigeria should be arraigned and prosecuted for offences from (1) to (7) while leadership of any State of the federation should be arraigned and prosecuted for offences from (5) to (7). This will discourage bad governance and allow only people who have respect for

rule of law, public interest, and progress of Nigeria with vast experience of governing ability to govern Nigeria. It will also stop politics of "do or die" or bitter politics in Nigeria. There should be Constitutional review to give local government full autonomy like the other levels of government in Nigeria. This will also make failed leadership at the local level to be held accountable (Oikhala, 2018).

4. No nation survives without respect to rule of law. A leader that allows disrespect to rule of law has invited anarchy to consume his government especially the public service. This is because where people are free to do what they like, there is always rain of lawlessness, breakdown of law and order as impunity will become daily affairs. It is in this context that the Oyo State Governor, Seyi Makinde quoted in Olaniyi and Oyewale, (2021) said when injustice becomes the law, and resistance will be a duty. The remedial action here is that public service rules and regulations must be activated to guide public servants instead of directive from political leadership that is impervious to when to draw a line of demarcation of welfare decisions and political decisions in public service. For this to be effective, the government leadership should no longer disrespect court orders, verdicts and decisions. The National Orientation Agency should organize a three day biannual leadership retreats and ethics in governance, rule of law, and role of leadership in public service for good governance should form the three topics for discussion. The facilitators and discussants should be invited from and among University intellectual.

5. This article held the view that in as much as the political leadership quagmire in Nigeria exists, bad governance can never cease, and this will in turn continue to make public service efficiency challenge to be worsened. Therefore, the issue of bad political leadership in Nigeria should be given very serious urgent remedial actions. If leadership defectiveness is rightly addressed in Nigeria, all rots in the public service today will equally disappear eventually like smoke. It is because the subordinate public servants enjoy the backing of the leadership popularly called "Oga-at-the-top" that they commit all sort of disciplinary offences and go free. In fact, most of them are ghost workers. They will be amenable discipline when there is a leadership with zero tolerance to bad governance, indiscipline, poor commitment, and corruption among others. The dominant of the lazy and the dull employers of public service in Nigeria

today are the “Oga boys” known as the political thugs of the leadership. These set of public servants are only burden to public service and they cannot be fired or queried for whatever wrongs they may commit because they are connected with the top leadership. It is in this sense that this article recommended public-oriented leadership who will run good governance that activate public service to become result-oriented where ghost workers, other incompetent workers will be eliminated to promote efficiency.

Finally, one of the major benefits of the 1988 Dotun Philips Commission on Public Service Reforms in Nigeria is enhanced professionalism. This conformed to Wilson (1887) that seeks for skill of administration for the course of government and its services to be efficient. There is no gainsaying the fact that a man’s capability can be best demonstrated in the job he is most familiar to. This has had some improvements in the practices and functions of public service in the past. To make the matter worse, the principle of professionalism in public service has been discontinued at the altar of politics, nepotism and to get job for the “boys of Oga at the top,” Public service has since been returned what it used to be as “jack of trade.”

This corroborated the thought of Charlesworth, (1967:53) saying, “I have earlier lamented the fact that Nigeria’s political leaders do not respect knowledge, and do not value research. This is part of our developmental problem. To worsen things, loyalty to leader is valued more than competence and capacity to do the job and loyalty to the nation and constitution.” The remedial actions suggested here is the restoration of professionalism in public service in Nigeria. All public servants including political heads and accounting officer should be posted to work in the areas of their specialisation. This will promote public service efficiency and minimise waste of public resources.

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Big Data – Friend or Foe in the Citizens' Agora. Political Campaigns and Public Communication in the Data Era

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Abstract. *The significance of the term Big Data has evolved rapidly over the last decade. Starting with Moore's Law, which emphasizes the constant doubling of computer processing capacity (Crawford, Miltner, and Gray, 2014), the subject of Big Data seems to be very different tomorrow from what it is today. The Big Data economy is developing and is a disruptive (disruptive) force for our world (Maranca, 2020), changing the society in new ways. For example, Harari (2018) underlines the human beings will change more in the next hundred years than they have in all of their previous existence. The combination of biotechnology and artificial intelligence (AI) may enable some people to be digitally enhanced, transforming what being human means. As this happens, concepts of life, consciousness, society, laws, and morality will need to be revised. This can be explained by the fact that Big Data promises to solve any problem just by restricting and interpreting the data.*

Keywords: *Big Data, political communication, public affairs, public relations, political campaigns.*

JEL: C81, C82, D72.

1. Introduction

In the last decades, we've assisted to a multi-dimensional process of evolution and transformation, preponderantly associated with the new technologies' paradigm, that took shape in two, woven, directions: information and communication. Castells and Cardoso (2009) affirm that technology does not influence society, it is the society itself. Technology is directly influenced by economical evolution, societal interests, the needs, and the values of the persons that use it. All this information and trends are nowadays identifiable in the billions of data generated by each digital user. Each action a person enterprise online or while connected to a smart device leaves a digital footprint that can be easily tracked, monitored, stored, modified, or shared for the benefit of an advertising service, a political debate or to gain competitive advantage. Thus, this opportunity to navigate through the users' data provides the possibility to benefit from better services, adapted results to the needs and requests, and better information. Brought together under the umbrella of Big Data, data and their analysis have transcended the boundary of technology, with important reverberations in all areas, including political communication, public affairs, and administration. It is a disruptive way to transform how professionals in this field can access personalized insights of public interest, thus helping organizations become more efficient and provide added value to citizens.

The Big Data economy is developing and is a disruptive (disruptive) force for our world (Maranca, 2020), changing the society in new ways. For example, Harari (2018) underlines the human beings will change more in the next hundred years than they have in all of their previous existence. The combination of biotechnology and artificial intelligence (AI) may enable some people to be digitally enhanced, transforming what being human means. As this happens, concepts of life, consciousness, society, laws, and morality will need to be revised. This can be explained by the fact that Big Data promises to solve any problem just by restricting and interpreting the data.

Big Data become an object of study, contributing to the development of new hardware, software and technological data architecture that allows the storage and usage of immense volumes of structured and unstructured data. The most important thing we can refer when it comes to Big Data is their impact. Big Data has multiple ways of potentials use, from innovation, discoveries or improving the life's quality. The authors aim to identify what is the impact of Big Data in the field of political communication, how it impacts the social, legal, ethical and public norms and which are its limitation in the context by taking into account the literature and case studies in this field.

Why Big Data?

Recent developments in society, triggered by the increased use of technology and the adoption of data-driven approaches to an organization's defining decisions, have influenced the use of data. Big Data has become an essential component of competitive organizational advantage. Virtually all stages of operations in modern organizations rely on Big Data to advance and ensure efficiency (Mehner, 2020). Observations suggest that implementing communication strategies based on Big Data technology and analysis has direct advantages in aspects related to the real-time evaluation of information and the improvement of uncertainty assessment (Mehner, 2020).

Harari (2016) observed that society is currently at the confluence of two scientific tidal waves. Firstly, biologists are deciphering the mysteries of the human body and, in particular, of the brain and human feelings. Secondly, computer scientists are giving us unprecedented data-processing power. Harari implies that when these two endeavours come together, one can get external systems that can monitor and understand human feelings much better than a person can do. The author underlines that once Big Data systems know a person better than she knows herself, the authority will shift from humans to algorithm, empowering Big Data to potentially become Big Brother.

Big Data are used in psychological, economic, and even political policymaking. The technique involves compiling large volumes of public data and sophisticated models to show specific behaviours and developments in the population. As the use of social media sites has increased over the past two decades, processing data became easier and more accessible as users are expected to provide personal data during the login process. Nevertheless, the authors emphasize that social media platforms have a responsibility to protect their users' private information from being abused or exploited by themselves. (Silverman, 2018).

Many devices, online searches, and installed applications use Big Data to monitor behavior and anticipate trends. When it comes to democratic forums, Big Data has gradually begun to gain a strategic position, according to Lukosius and Hyman (2018). The authors state that the immersion of Big Data in public affairs causes an inevitable change in the way they are organized. The authors propose that this should help communicators use Big Data to better interpret and maximize the potential of their messages concerning competition and citizens. Whether significant improvements are a revolution or an important step forward in planning, implementing, and evaluating public relations actions through Big Data is a question we want to answer.

Deloitte Tech Trends 2022 points out that there are six verticals in the evolution of technology, all of which are closely related to Big Data: blockchain, digital reality (augmented reality – AR, virtual reality – VR, mixed reality – MR), Internet of Things (IoT) that redefine how people interact with data, technology and with each other, data sharing, cloud, automating at scale cyber, artificial intelligence. Cognitive technologies (machine learning – ML, neural networks, robotic process automation (RPA), bots, natural language processing (NLP), and the broad field of artificial intelligence continue to have a place in the top trends. These cognitive technologies support professionals to understand the increasing volume of data, being able to manage it both in terms of volume and complexity what the human mind and traditional methods have failed to do. Accenture – Tech Trend 2020's annual report highlights the five major trends they prioritized: the experience co-created with consumers, the reimagining of business through collaboration between artificial intelligence (AI) and people, smarter and more interconnected equipment, the widespread introduction of robots, the creation of an eco-business system based on innovation. All these trends are created around data and data capture, decoding, and visualization technologies. According to the data strategy published by the European Commission in early 2020 (A European Strategy for Data), a 530% increase in global data volumes is projected for the period 2018-2025. This is an increase from 33 zettabytes to 175 zettabytes. In terms of the value given to this data, the Commission anticipates that by 2025 in the EU, the data economy would be worth $ 829 billion, up from $ 301 billion in 2018. This upward trend in Big Data could lead to a slowdown in data-driven decision-making and can lead to innovations in all areas.

This is the Big Data era, characterized by Needham (2013) as the ending of computers and technology as the society knew it for the last 70 years. Borkovich and Noch (2014) related to Big Data as a paradigm shift, from the traditional usage of data in the last 30 years, as well as numerical data and texts to the immense pool of data information gathered with the help of the technology, including images and data from social media. Traditional environments could store only structural data, formed by letters and numbers, but in the time of Big

Data increased the capacity to incorporate the unstructured data in the information management. The rite of passage for this new paradigm might be associated with the Internet boom from the mid-90s, and the richness of data that can be collected through online behavior, images, texts, and social media (Noah and Seman, 2012).

EUPRERA's European Communication Report (2017) study Exploring trends in Big Data, stakeholder engagement and strategic communication, conducted in 43 countries, sets interesting premises for the potential development of the field in which we operate. The study reveals that three out of four communication professionals in Europe (72%) truly believe that Big Data will change their profession. Almost a quarter (23.4%) say this is one of the most important issues for communication management in the near future. However, only 59.3% of respondents paid much attention to the Big Data debate. 55.3% of organisations that have implemented Big Data activities in communication use analytics for planning purposes, for example – to inform the future of a campaign. Fewer rely on Big Data to measure communication (45.9%) or to guide day-to-day actions, for example, automating content generation for specific audiences (36.5%).

To serve the purpose of this paper, we have also analysed from this report the reasons for the limited penetration of Big Data in the field of strategic communication. On the one hand, the communication profession lacks the analytical skills to make sense of Big Data and the time to study such data. These limitations were confirmed by almost half of the respondents. Moreover, statistical analyses confirmed that there is a significant correlation between these and Big Data awareness among communication professionals and the Big Data-related activities of their organisations. However, only 54% of practitioners can be classified as aware based on a group analysis of all respondents. They pay attention to Big Data discourse and have a lot of knowledge in the field. On the other hand, 70% are wannabes – they pay attention, but they have no knowledge. The rest (28.2%) are ignorant about Big Data. Ironically, an alarming lack of skills and knowledge prevents public relations and communications professionals – who tend to define themselves as data experts – from taking advantage of the massive amount of structured and unstructured data available for public communication today.

Literature review

The significance of the term Big Data has evolved rapidly over the last decade. Starting with Moore's Law, which emphasizes the constant doubling of computer processing capacity (Crawford, Miltner, and Gray, 2014), the subject of Big Data seems to be very different tomorrow from what it is today. The commonly used early meaning of Big Data belongs to Doug Laney (2001), who credited Big Data with "the explosive challenges of managing data in three dimensions: Volume, Velocity, and Variety". Laney explained how the use of online marketplaces has broadened the depth of available data, increased the speed limit of interaction, and expanded the variety of unaligned data structures. The author concludes his Big Data assessment by illustrating its core value in finding solutions to specific and growing industry challenges. Two other dimensions are often added to Big Data's characteristics: veracity and variability (Gandomi and Haider, 2015). Veracity is related to credibility, source accuracy, and how appropriate the data is for the proposed use (Elragal, 2014). These vertical questions the credibility of Big Data where sources are external (Addo-Tenkorang and Helo, 2016; Grover and Kar, 2017; Al-Barashdi and Al-Karousi, 2019). Recently, a sixth V was added and it refers to immense value (Elragal, 2014; Chen et al., 2014; Raghupathi and Raghupathi, 2014). A comprehensive definition of Big Data is given by Boyd & Crawford (2014), which explains the concept as a cultural, technological, and academic phenomenon, that took shape as a result of the interference between technology, analysis, and communication. The authors mention that Big Data relies on the computers' power, its analysis determining what models allow a better knowledge and understanding of the information, an activity that would have been impossible before with such an accurate degree. There are several interpretations of Big Data, as following:

Table 1. *Main Big Data Definitions Synthesis*

Laney (2001)	Characterizing Big Data by 3V theory: volume, variety and velocity. Volume: With the generation and collection of masses of data, the scale of the data becomes larger and larger; Velocity: the actuality of Big Data, in particular, data collection and analysis must be done quickly and in a timely manner; Variety: the different types of data, which include semi-structured and unstructured data as well as traditional structured data.
Gantz et al. (2011)	Describes a new generation of technologies and architectures designed to economically extract value from very large volumes of a wide variety of data, enabling high-speed capture, discovery and analysis.
Manyka et al. (2011)	Refers to data sets whose size exceeds the capacity of a typical database software tools to capture, store, manage and analyze.
McAfee et al. (2011)	Big Data, like analytics before it, aims to extract relevant information and translate it into business benefits. There are, however, three differentiators: volume, variety, speed.
Boyd and Crawford (2012)	Big Data is a cultural, technological and academic phenomenon at the intersection of technology, analytics and communication (full definition above).
Schroeck et al. (2012)	Big Data is a combination of volume, variety, velocity and veracity that creates an opportunity for organisations to gain a competitive advantage in the digital environment.

Zykopoulas (2013)	Big Data has four dimensions: volume, variety, velocity and veracity. Veracity: the uncertainty and uncertainty inherent in some data sources.
Kamioka and Tapanainen (2014)	Big Data is large-scale data from different sources and structures that cannot be processed using conventional methods and is intended to solve societal and organisational problems.
Davis (2014)	Big Data consists of exponential collections of data (large volumes) that can be updated frequently and quickly (high speed) and that can have many formats or contents (high variety).
Opresnik and Taisch (2015)	Big Data generally refers to the following types of data: traditional organisational data, machine and sensor generated data and social data.
Constantiou and Kallinikos (2015)	Big Data often represents diverse archives of online crowds. It is often agnostic, in the sense that it is produced for generic purposes, is based on different formats and modes of communication (e.g. text, image, sound), raising issues of semiotic translation and compatibility of meaning. Big Data is frequently used to refer to the large volumes of data generated and available online and through today's digital system.
Akter (2016)	Big Data is defined by 5 Vs: volume, velocity, variety, veracity and value. Volume refers to the amount of Big Data that is growing, velocity to the speed of real-time collection, processing and analysis. Variety refers to the different types of data collected in Big Data environments. Veracity refers to the reliability of data sources. Value refers to the transactional, strategic and informational benefits of Big Data

Big Data – Agenda-setting and computational politics

But the changes are not just in technical areas. On the contrary. In recent years, Big Data has also taken hold in public and political communication. The concept of Big Data in political communication has a complex understanding, depending on the scope of activities and how they intend to use Big Data to achieve their objectives. Organizations are increasingly choosing to make decisions and create communication strategies by defining data, and there is an important correlation between Big Data and the technologies it embraces (Mehner, 2020). Incorporating Big Data, analyzing, and interpreting this data in influencing its strategic approach implies that Big Data analytics plays a fundamental role in self-optimizing communication campaigns.

According to Wiencierz and Röttger (2019), the use of Big Data enables the understanding of social trends and market requirements, critical aspects of achieving competitive advantage. Ideally, social trends and societal changes, triggered by the expanded scope of stakeholder groups' demands, require that communication strategy is based on data and analytics to reduce the possibility of jeopardizing goals. Baldauf et al. (2020) note that modern analytics and reporting systems provide organizations with up-to-date information on market dynamics. The increased integration of Big Data into public relations enables better communication and improves the ability of corporate entities to distinguish between irrelevant and relevant information. Wiencierz and Röttger (2019) further highlight the contribution of Big Data and the technology on which it is built-in communication by pointing out that it plays a significant role in improving traditional communication models – by increasing the demands and importance of professional communication. The changing nature of corporate organizations, increased competition due to globalization and the need to meet individual customer needs mean that organizations must continually rely on Big Data to engage in stakeholder communication. Elish and Boyd (2018) argue that for creating long-term goals in stakeholder engagement and dialogue, Big Data, based on artificial intelligence technology, must be at the core of public communications.

Weine and Kochbar (2016) point out that communication professionals need to evolve with the transformation that Big Data brings and integrate into their everyday practice with this concept. The authors point out that the importance of Big Data lies not in the vast amount of data available, but in the value, it brings in terms of increased performance, much more accurate understanding of competitors, citizens, employees, media, as well as other audiences. Thus, from their perspective, organizations need to learn and recognize that data simply doesn't answer the *Why* question or provide the insights right away. In most cases, it will require human input, critical thinking to create value and provide meaning to the public relations field from the data we have. The goal of using Big Data is to help organizations achieve their goals and create better and more effective strategies, and new tactics through which assumptions considered are validated before execution.

In their research, authors Neuman, Guggenheim, Mo Jang, and Bae, *The Dynamics of Public Attention: Agenda-setting theory meets Big Data*, discuss the easy way that with a few taps and click any audience member can start a new discussion or respond to an existing one with text or audio, images, and even video. Transmission requires minimal effort, and after digital endowment, involves virtually no cost. But the founding concepts of agenda-setting could benefit from a rethink, according to the authors, from the perspective of Big Data. The authors point out that the fundamental problem could best be characterized as follows: *under what conditions does the digitally connected public respond? When do these responses have a significant impact on the general public and media plans and public issues framework?* Thus, they suggest, in a world of digital media development and online publishing, the dynamics of plans become more complex. This is important because both traditional and social media are online and equally accessible.

The notion of Big Data seems to attract data and analytics of this general type as a generic label. Early proponents of these new directions, while full of enthusiasm and perhaps with some dose of missionary zeal, are generally aware of many limitations and trends of these methodologies and confirm that these new research opportunities will complement and extend, but not replace, many traditional methods (Bollier, 2010; Boyd and Crawford, 2012). The Big Data phenomenon, considered a technical advance in industry and academia, derives from the dynamic knowledge environment (Wiencierz and Röttger, 2019).

McCombs and Shaw (1972) introduced the notion of agenda setting, drawing on Cohen's (1963) epigram: “The press may not always shape people's opinions, but it is remarkably successful in directing readers' attention to a subject.” They added a new element by focusing on a particular topic – public agenda analysis. Since the birth of this theory to date, over 400 studies on agenda-setting have been published, as McCombs (2004) noted. The authors proposed a theoretical puzzle (modest evidence of media effects) and the basics of a methodology for solving the puzzle (moving from public opinion and policy preference to the “agenda” of important issues and problems). McCombs and Shaw (1972) compared the effects of public agenda setting on groups of voters (e.g., Democrats, Republicans, Independents) and explicitly noted that the purpose of the between-group analysis was to examine individual differences that might have been overlooked had they been included in a single analysis group. Thus, they found a function of agenda-setting due to minimal issue-related variation and different media channels in the voter groups.

According to agenda-setting theory, audience members learn about public issues from the media and, at the same time, infer how much importance they should attach to a topic or issue, based on the importance the media attaches to that topic or issue. (Corbu, Frunzaru, Botan, Schifirnet, 2011). The authors give the following example: when reporting what candidates say during the campaign, the media seems to decide which issues are important. In other words, the media sets the campaign agenda and voters depend on it to spot the 'hot spots' of political debate. This ability to produce cognitive effects is one of the most important aspects of media power.

Subsequent studies have also shown that some audience members are more likely to be influenced by agenda-setting than others. For example, MacKuen (1981) offered two theories in this regard, the attention theory and the cognitive framework theory. Attention theory (attentiveness) states that susceptibility to media agenda-setting is a function of the attention individuals pay to the information they receive and their cognitive ability to process that information. Specifically, MacKuen explains, attentiveness is measured by interest in politics and cognitive ability by years of education. This theory predicts that the higher a person's political interest and/or education level, the more susceptible they are to agenda-setting. On the other hand, in the case of the cognitive framework theory, those with a high level of education and similar political interest have developed a self-defense mechanism against external influence. From this perspective, these people are less susceptible to agenda-setting. A few years later, Iyengar and Kinder (1987) demonstrated that audiences with a high level of political interest and a high level of education are less susceptible to media agenda setting. The two authors point out that the power of television news to set the public agenda depends largely on what the public thinks, and that the topics presented by TV stations are more effective for audiences with limited political resources and skills.

Today's news media, which have moved online, exert a wide influence on public opinion. Thus, with a few taps and clicks, any member of the public can initiate a new discussion or respond to an existing one with text or audio, or perhaps images and even video. Broadcasting requires minimal effort and, once digitally equipped, no cost. Current influences on public agenda setting are highlighted by Shoemaker and Reese's (2014) conceptual model. According to them, the five factors that contribute to media planning including individual journalists, media routines, organizational factors, social institutions, and cultural/ideological considerations. While this model confirms the possibility that individuals, such as government officials or public relations practitioners, can influence media plans and cultural factors can simultaneously influence journalists and audiences, the general public is not identified as a significant influence on the model and the notion of reverse plan setting is not addressed. Another related literature emphasizes the concept of constructing an intermediate plan which refers to the reciprocal effects of institutional media plans (Golan, 2006).

Quoting Neuman et al. (2014), it would be naïve to argue that the power of the public plane has shifted from media elites and founding institutions to the citizenry. But the founding concepts of media agenda-setting could benefit from a rethink. The fundamental question might best be characterized as follows: under what conditions do digitally connected audiences respond, and when do these responses have a significant impact on the general public and media plans and public affairs frameworks? Prior to the reintroduction of the term by Kim and Lee (2006), the notion of reverse agenda setting simply meant that journalists could respond to actual or perceived public interests and thus the public agenda could be viewed as preceding and influencing the media plan (McCombs, 2004).

Neuman et al. (2014) believe that Big Data analytics should not only be seen as a potential method by which PR managers can improve how they meet the core requirements of their industry, but also as a means of improving their ability to make sense of the speed and volume of information they must consider daily. In this new ecosystem, a new phenomenon is emerging, micro-targeting. Micro-targeting is a communication technique that uses data from people. User details include, among other things, people's likes and dislikes, their connection, exactly where they are, and how they shop. Its communication approach aims to divide these people into accessible categories and access the material effectively (Hussain and Roy, 2016).

The basic causal model supports the correlation between general measures of media coverage, and the measures of oversight of public opinion important at a given time is the evidence of agenda-setting. Subsequent studies have refined the model by examining the correlation of agenda-setting for different issues, different types of media, different types of audiences, and different time lags between media coverage and public response (Dearing and Rogers, 1996; McCombs, 2004; McCombs and Shaw, 1993; McCombs, Shaw, Weaver, 1997; Wanta and Ghanem, 2007). Few in this tradition have approached the difficult prospect of evaluating media plans and public plans over time with a focus on the causal direction aspect (Brosius & Kepplinger, 1990; Burstein, 1985; Cohen, 2008; Fan, 1988; Kellstedt, 2003; Neuman, 1990). However, the number of these analyses was so small that they were removed from a meta-analysis with the notation, "Given that most of the design studies used Pearson correlations, removing these few time-series studies did not significantly reduce the number of studies included in our analysis" (Wanta & Ghanem, 2007). McCombs and Shaw (1972) considered the possibility that those correlations between the media and public plans might be the case in the reverse direction with journalists, in effect, anticipating or predicting public interests but rejected this premise as implausible.

The research in the field of Big Data and politics, specialist have identified the phenomenon called *computational politics*. The concept refers to applying computerized methods and information technology in database obtained through online and offline platforms in order to promote, persuade and activate the target audience in order to win elections, sustain or compete a certain candidate, a public politics or a legislative initiative. Computational politics is derivate from the social and behavioural sciences, being developed through experimental methods, including online experiments, in order to realize user profiling, hyper personalized communication, and to develop persuasion methods, also hyper personalized. Notwithstanding, computational politics represents a set of practices that rely in Big Data and the analysis tools associated with it. The concept is defined by information asymmetry, in the sense that those who own the data have plenty of knowledge regarding the users, but the users don't know what data have these Big Data specialists. (Winston, Finlayson, 2004, Tufekci, 2014; U.S. Federal Trade Commission, 2014; Braud et all, 2019; Haq et all, 2020).

Computational politics contributes to the change of political communication towards personalization, individual interaction, detail analysis and correlation of different online actions realised by the users, increase of the processing capabilities and semantic analysis, increase of the cost efficiency and human resources, increase in the number of persons involved in the online experiments. For example, thorough the Latent Dirichlet Allocation, keywords can be tagged in order to generate ideologic content estimations. (Goldbeck, Hansen, 2011).

In academic articles, concern about the influence of digitization has raised questions: “Can democracy survive on the Internet?” (Persily, 2017) where once there was a relatively brief period of euphoria about the possibility that social media could create a golden age of global democratization (Tucker et al., 2018). Social networks, the data they hold, and the widespread and visible reach they enable have become newsworthy – and an increasingly important area of focus for academic research. This is because, in recent years, we have witnessed many of the phenomenally successful internet businesses set up in the last decade (Facebook, Google, Twitter, etc.) acting somewhat recklessly about the use of the huge amounts of data they have from users and the personal information people are willing to give up to use these free, cleverly developed software applications, but designed to touch so many aspects of our 'connected' lives (Andersson, 2018).

The Big Data Presidents

Online social networks, politics, and Big Data are increasingly in the news about organizations. Today's technology provides extensive organized knowledge about potential stakeholders, suppliers, rivals, and internal operations, practices, and habits, which ensures that Big Data becomes the centre of the organization (Scola, 2013). Political campaigns using advanced behavioral and psychographic targeting, along with geographic micro-marketing (Albright, 2017), designed to bring in or win key voters, may even have affected the outcome of the 2016 US presidential election, a contest that Cambridge Analytica claimed to have "won" for Donald Trump (P. Lewis & Hilder, 2018). The misuse of large amounts of personal data, along with state-sponsored interference in election processes by promoting frequently inflammatory material on popular social media, including Facebook and Twitter (BBC News, 2018), has been widely reported in the media (Cadwalladr & Graham-Harrison, 2018; New York Times, 2018).

Since 2012, Barack Obama, the former United States of America (USA) President has used this approach to carry out his efforts throughout his campaign and presidency. This action has caused much progress and a great transition to how candidates contest votes in America. Hussain and Roy (2017) state that politics in America fundamentally changed during this period. Analyzing the communication tactics in politics, Nickerson (2014) sustains that some of them are obsolete in the advent of Big Data and the use of technology. The author emphasizes though, even in the last year, the voter's data were consistent, and the volunteers and the sympathizers were the ones that gathered the information from the field. Nevertheless, data couldn't be utilized at their true value and technology became the tool that raised the standards and increased the communication and promotions' efficacy in the political field.

Issenber (2012) author indicates that the "Big Data President" name was attributed to Obama after his 2012 campaign, and this owes to the fact that his team managed to utilize the data analysis and experimental methods. Firstly, this approach determined a hijacking of the political advertising supremacy in the USA and, secondly, created leverage for a new type of approach in the political communication, a national campaign similar to a campaign for a city, in which the interests of the voters are known and discussed in the campaign. For the current analysis, I will mention a couple of ways the Obama team used Big Data in his campaign. In the 2012 campaign, a Siemens Enterprise phone system was installed that allowed up to 1.2 million phone calls a day to create polls regarding the voters' opinions. Moreover, they also acquired Vertica software from Hewlett-Packard that granted data integration of over 180 million voters with the information from the volunteers, donors, and everyone who has interacted with Obama online. By doing this, the campaign team was able to mobilize the 2008 voters, but also to find new ways to bring the voters to the polls. An additional program created by the Obama team, called Narwhal, was the one that collected data from digital platforms and financial data in a single database (Gallagher, et. all 2020). This way, the political campaign started with 10 terabytes of information (Burt, 2013). Hussein and Roy (2017) observe that, by tapping into the Big Data power, Obama's team managed to better organize the information and data, better work with programmed TV communication, better use of statistics, and ways to choose and broadcast news about the campaign.

Hussein and Roy (2017) mention that Nielsen was among the television pioneers who helped in this regard. Television was the best technology used, which allowed the campaign space to generate or raise more funds, and every dollar was used to promote campaign messages and less rivalry. The use of the right data collection and modelling tools allows the task to be simpler and fits the particular concerns and roles of the portfolio with those of the candidates. Such games can attract voting classes and actual voters. Through data and the technology behind it, the team managed to identify potential timelines to promote the message with below-average pricing compared with the general media, but with the same efficiency. For example, his analyst team discovered an impressive number of voters didn't avoid the TV debates because they were not interested, but because they had children and they were too busy to follow those respective TV slots.

In early 2018, a conflict between Facebook and Cambridge Analytica (CA) went viral after the latter managed to collect data from the social media giant on their customers and exploited it for the benefit of the political campaign of the current American president, Donald Trump, during the 2016 US election (Silverman, 2018). Trump's campaign team hired Cambridge Analytica to help him build momentum for tech-savvy individuals who use social media daily in their online marketing plan (Silverman 2018). The scandal centered on claims that personal details obtained from at least 87 million US Facebook users were used to spread lies by Russian agents in support of President Donald Trump's election (Judge, 2018). CA began its work in Australia and assisted the Liberal Party during its election with documentation and government officials. CA was to bring an increase in efforts to harness the two successful political profiles, based on the team's previous years and expanding its coverage that was established in democracies in western regions (Dolan, 2018). Cambridge Analytica's mission was to report on market indicators affected by the application of micro-targeting or custom polling to gauge people's attitudes. Dolan (2018) reminds us that the Australian population is around 24 million, allowing companies like Cambridge Analytica to generate enough money by engaging in political campaigns. Federal elections are held within three years, making it one of the shortest models of government in a nation. Cambridge achieved a level of notoriety after several reports that revealed information about information collection as well as apparent efficiency (Filloux, 2019).

Looking at the history of Big Data in politics, it all started with the development of a quiz app created by Cambridge alumnus Aleksandr Kogan (Etter & Frier, 2018) and installed by just 305,000 people that led directly to the "harvesting" of some 87 million Facebook user profiles in 2015 including, ironically, details from Facebook founder Mark Zuckerberg's account (The Independent, 2018). This explains Cambridge Analytica's interest in his work (Davies, 2018). The data collected by the "This Is Your Digital Life" app and shared with Cambridge Analytica exploited the 'social graph' or set of inter-linkages between Facebook users and the platform's API or Application Programming Interface (BBC News, 2018). This data was subsequently used to "build psychological profiles of voters in the United States" and elsewhere (Frenkel, Rosenberg, and Confessore, 2018).

The revelations around Cambridge Analytica's misuse of Facebook data for political marketing purposes prompted a US Congressional Committee investigation into data use, sharing, and privacy policies at Facebook (McKinnon & Seetharaman, 2018; US House of Representatives, 2018). In CA v Facebook, it was alleged that Facebook violated data privacy laws by allowing third parties to view personal data without the user's permission. This material was provided to the Trump campaign, which contravenes the organization's rules. The event gained worldwide interest when key players raised the topic of Big Data exploitation. The main argument is that when private information is posted on websites, this citizen data should be secured (Mirchandani, 2018). In a global society, both at the organizational and political level, good governance is critical as it decides the type of leadership. Politics influences significant social and economic decisions; thus, significant global events, such as the election of a substantial world leader, can be affected by the use of Big Data, which is a central topic of debate and questions about the ethics and transparency of data use. The response to this crisis came immediately from Facebook, which included updating privacy policies and finding and reporting any loopholes that could be exploited for personal gain. To exonerate his company, CEO Mark Zuckerberg also had to appear before Congress. Academic research findings related to the topic of Big Data in light of the 2018 Facebook and Cambridge Analytica scandal interference and alleged Russian state-sponsored interference in the 2016 US presidential election campaign (Cadwalladr & Graham-Harrison, 2018, USA House of Representatives, 2018), demonstrate how the misguided/inetic use of Big Data can be applied in attempts to disrupt normal democratic processes.

In the United Kingdom (UK), links between political strategists at Cambridge Analytica and pro-Brexit campaigners contesting the 2016 European Union Accession Referendum led to claims that “data analytics” provided by the political arm of Political CA and AggregateIQ (Ram, 2018) effectively “hijacked the democracy” (Cadwalladr, 2017). These claims have been tested by a group of British expatriates (Bowcott, 2018), leading to a High Court case challenging the legality of the 'Brexit' result (Wilson, 2018), based on the £449,079 expenditure that Vote Leave campaign organizers made; the Electoral Commission has been fined several times as a result.

Digital spending on campaigns has been steadily increasing in the UK (Sabbagh, 2018), given trends captured by the need for professionalization, commercialization and mediatization, as well as dramatic changes in the way parties run their election campaigns (Lilleker, Tenscher, & Štětka, 2014). These developments and the problems associated with the promulgation of 'fake news', which researchers have observed can 'travel' very quickly on online social media (Vosoughi, Roy, & Aral, 2018), prompted a House of Commons Select Committee inquiry (Digital Media Culture and Sport Committee, 2018) to call on academic experts with advanced degrees in media and communications for evidence (Fuchs, 2018). Among ministers and MPs, there is widespread concern that digital communications and/or fake news, disseminated on the internet or social media, may be 'crowding out' real news, creating a 'crisis' for British democracy (BBC News, 2018).

In the USA, the 45th President of the United States, Donald Trump, has faced an investigation by Special Counsel Robert Mueller into his and his campaign team's ties to Russian operatives seeking to influence the outcome of the 2016 election that brought him to power. Since his appointment as head of the independent federal investigative and prosecutorial agency (USA Office of Special Counsel, 2018) on May 17, 2017, Mueller has detained 22 criminal defendants and collected five pleas, including from Michael Flynn, former national security adviser; Richard Gates III, former deputy to campaign chairman Paul Manafort; and George Papadopoulos, former Trump foreign policy adviser (McCarthy, 2018).

A new dimension of how data can be misused has been outlined. For Cambridge Analytica, the financial and reputational results have been dismal as several of its clients have failed to conduct their business and become ineffective. At the end of April 2018, the firm reported shutting down its operations as a business. President Trump was unpopular among major US newspapers, with only 20 newspapers endorsing him, compared to the 200 Clinton-sponsored newspapers. The Trump administration ran out of the money Hillary used to invest $200 million in media ads. During the Make Political Marketing Great Again lecture, held in Bucharest at the invitation of the Romanian Academy in March 2019, Dan Parscale mentions that in the 2016 campaign, Hillary Clinton's team created 66,000 different messages. Trump's team created 5.9 million different ad messages. Those messages were thought out and targeted directly to voters in the way they consumed the messages. As a campaign strategy, Parscale notes in the same conference, he changed the way he looked at people as demographics, groups or individuals and proposed that they be looked at individually, as each act, because in his view, two people can look the same but behave differently.

Trump's target audience was largely male, white, with limited resources/income, without a high education, who felt they had no political voice, were externally intimidated, and lived in racially abusive areas. Trump responded by threatening to raise taxes on wealthy people, deporting unregistered aliens, and expelling Muslims from the country. Poor uneducated Americans have experienced frustration through globalization and rising tuition prices. Moreover, Trump's online advertising has been optimized to reach and influence the behavior of rural voters considered invisible (Hussain and Roy, 2018). Numerous studies have examined how online interpersonal activities as reasoning mechanisms link research for political campaigns to political outcomes (Yamamoto and Morey, 2019, Chan, 2016).

According to Brad Parscale, the digital and political consultant and member of President Donald Trump's re-election and digital operations team (2020 campaign), “With the president in office, we're developing a different set of actions from 2016. Back then, everything was on a knife-edge and the campaign operated, even at its best moments, at just a fraction of what was probably needed. Everything was mobile. Changing, adapting. It was about a man running for the first time for an official role” (interview taken for Face Nation, 2020). Also, Parscale shows that in 2016 the Trump campaign had 700,000 volunteers, and by 2020 they aim to reach 1.6 million volunteers connected through technology to the voter's phone, both through apps and other technological developments.

Propaganda based on information gathered through Big Data seems to be a growing problem in several states. In Kenya, Cambridge Analytica mined voter data to help President Uhuru Kenyatta win elections in 2013 and 2017. Over two presidential election cycles, it presided over some of the darkest and most visible campaigning Kenya has ever seen, “poisoning” the country's democracy (Madowo, 2018). It is currently unclear whether these observations are real, and ultimately it may prove impossible to determine (W. Davies, 2018), whether these interventions by companies or state-sponsored actors have had any direct impact or “clear monolithic effects” on electoral outcomes (Dimitrova & Matthes, 2018). Propaganda based on information gathered through Big Data seems to be a growing problem in several states. In Kenya, Cambridge Analytica mined voter data to help President Uhuru Kenyatta win elections in 2013 and 2017. Over two presidential election cycles, it presided over some of the darkest and most visible campaigning Kenya has ever seen, “poisoning” the country's democracy (Madowo, 2018). It is currently unclear whether these observations are real, and ultimately it may prove impossible to determine (Davies, 2018), whether these interventions by companies or state-sponsored actors have had any direct impact or “clear monolithic effects” on electoral outcomes (Dimitrova & Matthes, 2018).

Governments, regulatory agencies, and lawyers are examining the multiple breaches of online trust generated by these developments, while the scientific community is to some extent playing 'captive'; even though issues related to echo chambers (Gilbert, Bergstrom, & Karahalios, 2009), polarization (De Nooy & Kleinnijenhuis, 2013), participation (de Zúñiga, Veenstra, Vraga, & Shah, 2010) and disinformation (Budak, Agrawal, & El Abbadi, 2011) in political discourse in social media have been researched for some time. More broadly, there is a perception in the literature, particularly in the wake of the Facebook and

Cambridge Analytica scandal, that the rise of the network society elevates Big Data into the realm of an Orwellian Big Brother, constantly storing information about individuals' daily actions and using this data for manipulation or control. Previous revelations by former USA spy Edward Snowden, published in The Guardian (2018), which revealed that government surveillance agencies make extensive use of social media feeds, as well as any other internet and telecommunications data they can access, have already done little to inspire public distrust of online digital privacy, and, it seems, within a week of President Donald Trump's inauguration on January 20, 2017, following several post-election months in which Big Data-driven campaign techniques came to light, George Orwell's "1984" was the best-selling book on Amazon.com (Broich, 2017).

Jeff Chester and Kathryn Montgomery's paper tracked the "ongoing political marriage" and trade "and the rise of data-driven political marketing" (Chester and Montgomery, 2017). They looked at seven key techniques used in 2016 campaigns in the US, all of which point to massive consolidation efforts in the digital marketing ecosystem: cross device targeting; programmatic advertising; lookalike modelling, such as that offered through Facebook; online video advertising; targeted TV advertising; psychographic, neuromarketing and emotion-based targeting. In their new article in this collection, the authors expand on this analysis and preview the types of practices likely to be witnessed in the 2020 USA election campaigns (Chester & Montgomery, 2019).

At the same time, the power of data-driven elections may be overstated. Philippi's (2019) article shows that it is difficult to empirically determine how and if Big Data wins elections. Data-driven campaign strategies are likely to be more effective in mobilizing supporters and donors than in persuading undecided voters. Thus, the emphasis on the scale often substitutes for claims of effective-ness, the author believes. At one point, Cambridge Analytica claimed to have around 5,000 different data points about the American electorate. The USA voter analytics industry, including companies like Catalyst, i360, and HaystaqDNA claimed an extraordinary amount of personal data under their control – free and purchased, from public and private sources. Such claims about Big Data further reinforce widespread narratives about hegemony and glorification of size and granularity in databases over acceptable claims about efficacy (Baldwin-Philippi, 2019).

Social media analysis is a step used by many politicians and therefore data is quickly seen by the team in a short time. According to Yamamoto and Morey (2019), they make a distinction in terms of added value for a candidate between today's ordinary media and elective media. The former involves the use of traditional television and newspapers. The authors note that when it comes to major politicians, media is the most common form of presence for them. The second involves digital or modern media, and this includes the phones we have and whatever facilities are in them. Mobile phones can, without much difficulty, access data about users' perceptions of the state of governmental issues in a country from any location through the aggregation of data from pledges such as Facebook, Instagram, WhatsApp, among others (Yamamoto and Morey, 2019). The main social media platforms that Trump has used, Twitter being the most visible, have helped him spread his political vision to American citizens.

From the case study of the Trump campaign and Cambridge Analytica, it is essential to examine how Big Data enables public relations professionals to deliver more informed and accurate campaigns to their audiences. Also, an analysis of the new skills needed by the public relations professional to adapt and use Big Data technology, Big Data impacts communication goals and the different tools applied to public relations professionals to aggregate. They have analyzed the data, and now it is important to look at how the public relations professional uses Big Data to influence public agenda-setting. As Bârgăoanu (2018) notes, analyses have already emerged that show us a reality that many might consider harsh: the political class and traditional media are clueless about how and what is happening in the information ecosystem disrupted by technology in general and Facebook in particular.

Big Data Paradoxes

As stated before, Big Data in the political communication field lays before several paradoxes and questions. First, one must analyze the way Big Data is stored and reported. The second question is if Big Data has truly the capacity to change the world: is it going to become the main force in what concerns the politicians' ability to envisage protests or help doctors to save the patients' lives? Third, refers to how Big Data will serve the purpose to change behavior based on the insights gained from Big Data. If citizens' data will continue to be erroneously used or manipulated, the public will be less eager to share their information.

Smith and Cordes (2019) identified some Big Data pitfalls. These include misused data (e.g., truncated or specially chosen data, often associated with poor graphics), pre-theory data (e.g., false correlations and post-doc predictions), "worship" of mathematics in behind Big Data (e.g., analysis models are wrong, excessive matching, p-value hacking, regression applied to longitudinal data), correlations vs. causation, the determination of negative consequences (for example, the prediction of social characteristics such as software recidivism is extremely worrying (and simply wrong).

Previously, King (2013) observed that there are 3 paradoxes of Big Data: the paradox of transparency, the paradox of identity, and the paradox of power. In the case of the transparency paradox, he notes that major data analytics depend on small data intakes, including information about people, places, and things collected through sensors, cell phones, click devices, and the like. These small data inputs are added to produce large data sets with analytical techniques for observation. This data collection occurs invisibly and only accelerates. King notes that there are legitimate arguments for a certain level of Big Data privacy (just as there are legitimate arguments for personal privacy in the age of important data). To operate at full capacity, important commercial and governmental data systems that constantly attract private information from the growing all-encompassing Internet are often connected to highly sensitive intellectual property and national security assets. The advantage of Big Data may depend on trade secrets, and the existence of sensitive personal data in important databases recommends confidentiality and security. But as Big Data analytics is increasingly used to make decisions about people, those people have a right to know on what basis decisions are made. We do not propose that these systems be stored without security measures or available to the general public. But we need to recognize the paradox of transparency and bring together legal, technical, business, government, and political leaders to develop appropriate technical, commercial, ethical, and legal protections for important data and people. Big Data tries to identify but also threatens identity. King calls this the paradox of identity. He mentions that we instinctively want sovereignty over personal identity. While the important right to privacy comes from the right to be left free, the right to identity has its origin in the right to free choice about who we are. This is the right to define who I am. I am me; I am anonymous; I'm here; I'm there. I'm watching; I buy. I am a supporter; I'm critical. Vote; I abstain. I'm pro; I'm against. I like; I do not like. I am a permanent resident foreign national; I'm an American citizen. Even with the most basic access to a combination of important data such as phone records, online history, purchase history, social media posts, and more, there is a risk that “I am” and “I like” will become “you are” and “you will like it.” Any Google user is already affected by the provision of important data from Google search results, a risk that echoes individual and collective thinking.

Leonard (2013) details how companies that discover how to generate intelligence from that data will know more about us than we know about us, and will be able to develop techniques to determine which direction to go differently from the one we choose. we would stick to our own devices. The power to shape our identities for us suggests a third paradox of Big Data. They are promoted as a powerful tool that allows its users to see a more accurate and clearer picture of the world. For example, many Arab protesters and commentators have credited social media to helping Protestants organize. But important data sensors and important data warehouses are predominantly in the hands of strong intermediaries, not ordinary people. Seemingly learning from Arab organizers, the Syrian regime has simulated removing restrictions on the use of Facebook, Twitter and YouTube by its citizens just to secretly profile, identify and determine dissidents.

This is the paradox of power. Important data will give rise to winners and losers and there may be a benefit for institutions that have tools on the people investigated, analyzed and selected. Not knowing the legal or technical limits, each party can only guess. Individuals give in to denial as governments and corporations escape as best, they can through failure until they are allowed to falter as a result of a scandal following the shock of the revelation. The result is a not at all easy and insecure state that is not healthy for anyone and affects individual rights, and our democracy is reduced. If we do not take measures to protect the confidentiality, transparency, autonomy and identity of important data from the beginning, warns King (2013), the paradox of power will reduce the great ambitions of important data. He believes that a healthier balance of power is needed between those who generate data and those who make inferences and make decisions based on them so as not to generate inappropriate revolt or control of the other.

A closer look reveals that professionals in strategic communication influence the construction of public opinion and the construction of reality in media companies to a large extent (Hepp, 2020; Knoblauch, 2020). Combating or supporting conspiracy theories and fake news, intentionally or randomly, have an impact on global health issues, as well as on the economic development of communities and individuals. This poses severe ethical challenges for communication professionals, which are driven by an exponential increase in Big Data, as defined in this paper. Recall that digital technologies offer many opportunities for strategic communication (Freberg, 2017), for example, using social robots (Wiesenberg & Tench, 2020), Big Data analysis (Wiesenberg et al., 2017), sponsored content (Zerfass et al., 2019) and social media influencers (Enke & Borchers, 2019). However, such practices are less institutionalized and are rarely covered by codes of conduct compared to traditional media relations or advertising.

According to the study *Euprera – Ethical challenges, gender issues, cyber security, and competence gaps in strategic communication* (2020), most communication practitioners are challenged by such practices: two out of three (67.6%) respondents say that the use of bots for Generating feedback and followers on social media is extremely or very challenging from an ethical point of view. Most consider the same for all the other practices mentioned above. Fewer issues are identified when it comes to profiling and targeting audiences and editing entries in public wikis such as Wikipedia. A second point considered with many ethical questions concerns the study of the exploitation of personal data of the audience by applying Big Data analytics (58% consider this practice very challenging), while profiling and targeting the audience based on age, gender, ethnicity, service, or interests is seen as less challenging in terms of ethics (46%).

Conclusions

Nasim Taleb (2012) said that “This is the Big Data tragedy: The more variables there are, the more correlations that can have meaning. Falsehood also grows faster than information; it is non-linear (convex) in terms of data (this convexity is similar to that of a payoff financial option). The noise is anti-fragile. The correlations and significance that Taleb mentions emerged from the analysis I conducted. Communication professionals have not yet discovered the creative and communication process based on Big Data. Our research has shown that from drawing messages to storytelling to following public trends, Big Data analytics can help the with positioning, reach new audiences, deal with public relations crises, decipher changes in its audience behavior, understand cultural differences, and discover new market segments. The advantages of using Big Data analytics, in the broad context of technological immersion in communication, outweighed the disadvantages. The data we have shown us that we can use Big Data to build more effective and creative strategies in the political communication. Big Data, in essence, means that everything we do, both online and offline, leaves a digital mark. Every online purchase, Google search we've just done, every move we make is monitored by the app installed on your mobile phone, every online interaction is stored.

Does the fact that more people produce more data for us change what we say about what data looks like? Not really. For example, the easier ways to take and share photos with digital cameras and smartphones and social media have changed their behavior, but the reason people take pictures has not changed so profoundly that thing without the help of Big Data. But most importantly, as Nicolas Nassim Taleb said, addiction to Big Data is wrong without human intervention, because we now have so much data that any theory can be proven and disproved at the same time. Our data shows that, for the time being, the infrastructure for interpreting Big Data is minimal.

Big Data is useless if it is not interpreted and exploited for prospects. The question is how can we get to a place where we can incorporate it properly, so that it acts as what it was all this time, a bigger pond to fish for more details. As the market gets crowded, there is a clear and dynamic shift in power from brand, even a political one, to consumer/citizen. Thus, organizations need to build stronger and longer lasting relationships throughout the procurement process, ensuring the connections of this data.

A relevant question in the context of this research is how do we turn all this data into value for the organization? The responses we received showed that an up-to-date technological infrastructure, a coherent and standardized workflow (from data collection to analysis), correlated with the communication strategy, can have an extremely high impact in terms of regarding the competitive advantage of the organization in terms of: messages sent, branding, the user's perception, stakeholder involvement, crisis management, etc.

For future research, the present results raise new questions: what will be the cost of access to Big Data and who will be able to afford it, what will happen to those organizations that are not starting to invest now and how big will be the gap between the new agencies? communication and traditional ones. Moreover, there will be consequences arising from differences in access to Big Data. At the same time, there are technologies mentioned in this paper, such as Blockchain, which will continue to shape Big Data and its use. Thus, we wonder what its role will be in the near future. Given the differences highlighted in research, in the future, a potential direction of research is to analyze the activity of these organizations after Big Data will become widespread in use and understanding and how it will influence the long-term thinking and skills of the communication specialist.

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