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Promoting Industrial Technology Development in Nigeria Through Executive Order 5: Opportunities and Challenges for the Nigerian Society of Engineers

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Abstract

In response to the yearnings of Nigerian Engineers over the years that no real development could be achieved without robust strategies for ensuring sustainable development of indigenous engineering development, former President Muhammadu Buhari, on 2nd February, 2018, signed into law Executive Order No.5 (E05). This order is designed, among other things, to ensure that Nigerian businesses and expertise have preference in the award of contracts in respect of science, engineering and technology projects in line with the nation's Procurement Act 2007, while foreign companies will only be considered only in the absence of local capacity coupled with their willingness to demonstrate their commitment to indigenous capacity development prior to the award of such contracts. Using the institutional,inherent power and residual power theories, the study analyses how a full implementation of Executive Order No.5 can enable Nigeria to promote the development of her industrial and technological goals. The study employed qualitative data collection and analysis to present its findings. In terms of findings, the paper concludes that executive orders have the propensity to promote the development of relevant technologies for Nigeria' industrial growth. This study explores the critical role of EO5 towards fostering a functional indigenous industrial technological development while highlighting the challenges and opportunities for Nigerian engineers through this renewed drive for promoting Nigerian components in science, engineering and technology for accelerated national development. By recognising and prioritising local components in science, engineering and technology projects through addressing policy gaps, Nigeria has not only set the stage for realising her dreams of rapid industrial and technological transformation but has also empowered indigenous engineers to contribute their quota to national development.

Keywords: Executive Order No.5 (E05), science, engineering and technology, national development, local content

I. INTRODUCTION

An Executive Order (EO) is an official statement, which may have the force of law, is neither the equivalent of a new law nor is it aimed at supplanting the legislative arm of government in the performance of its constitutional role. It is simply an instruction by the President to his government on how it is to work within the parameters that have already been set out in extant legislation and the Constitution (Kuforiji, 2018). Although, Executive Orders are considered binding, they remain subject to legal review. (Sbailò, 2024: 275) also notes that presidents manage federal operations and direct the actions of government agencies, often to address innovative or emergent complex topics. EOs are particularly effective, as they allow for the rapid establishment of priorities and standards in this rapidly evolving field, often anticipating legislative processes.

According to Ladan (2018), the very first executive order in modern public administration was issued by President George Washington on 8th June, 1789, and was addressed to the heads of federal departments, instructing them "to impress me with a full, precise and distinct general idea of the affairs of the United States in their fields." Apart from William Henry Harrison, all American Presidents have issued executive orders. In the Nigerian context, there is little to suggest that such orders were made prior to the "Statutory Order No.9" , which is a presidential Executive Order signed by President Olusegun Obasanjo in 2002 and titled: *Allocation of Revenue (Federation Account) (Modification) Order, Statutory Instrument No. 9 of 2002*, The statutory order was challenged by the thirty-six States of the Federation at the Supreme Court of Nigeria in *Attorney-General of Abia State and Ors. V. Attorney-General of the Federation (2003.* The court aligned with the President and held

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that by invokinghis power to modify the Allocation of Revenue (Federation Account) Act, 1990 asamended by Decree 106 of 1992, under section 315 of the Constitution, thePresident did not breach the principle of separation of powers in signing the order.

Bashir & Oguntuase (2018), however, noted that the issuance of "Presidential Executive Orders", as so named, in Nigeria began with the administration of former President Muhammadu Buhari, which in its bid to reform the administrative and regulatory environment for both private and public sector players, established in 2016 the Presidential Enabling Business Environment Council along with its ancillary Enabling Business Environment Secretariat for the purpose of improving the country's economic productivity, diversification, competitiveness and global rankings on the World Bank's ease of doing business index. Consequently, the administration rolled out three Executive Orders: *EO1, EO2 & EO3* on Thursday, 18th May, 2017, to promote transparency and efficiency in the business environment as well as facilitate the ease of doing business in the country; to create support for local content in public procurement by the Federal Government, and; to mandate timely submission of annual budgetary estimates by all statutory and non-statutory agencies along with government-owned companies.

Furthermore, on Thursday, 29th June, 2017, the administration rolled out EO4, with a focus on the launch of the *Voluntary Assets and Income Declaration Scheme (VAIDS)*. Through this scheme, tax amnesty is offered to defaulted provided they pay up within a stipulated time frame. Executive Order 5, titled: *"Presidential Executive Order for Planning and Execution of Projects, Promotion of Nigerian Content in Contracts and Science, Engineering and Technology"*, was signed on 2nd February, 2018, is expected to complement the earlier EOs in terms of setting Nigeria on the path unprecedented national development, Executive Order No.6 was signed on 5th July, 2018 titled:

Preservation of Suspicious Assets Connected with Corruption and other Relevant Offences (ibid), (State House, 2018), (Kuforiji, 2018), Nwaozor (2018), Ladan (2018).

Additionally, on 5th May, 2025, words filtered out that President Bola Ahmed Tinubu, at the end of his cabinet meeting held on Monday, 5th May,2025, will soon sign another Executive Order, tagged "*Nigeria First"*, which mirrors President Trump's "America First" policy. The order will place a ban on importation of foreign goods, especially those that can be produced locally in Nigeria. Furthermore, there will be a caveat on expatriates coming into Nigeria to execute jobs, which local contractors and artisans can undertake, unless there is convincing justification for it, including express permission from the Bureau of Public Procurement (BPP).

This proposed executive order is a rehash or at best reminiscent of the Executive Order No.5 of 2018. The background for the two orders might be different as the proposed one is being against the backdrop of the nation's unfavourable balance of payment problems, weakening naira, falling oil price in the international market, among other reasons. through which the President ordered a ban on importation of foreign goods, especially those that can be produced locally in Nigeria. The *Nigeria First* policy is expected to become the cornerstone of the administration's economic strategy, especially as the government pushes forward with its industrialisation agenda and import-substitution goals. According reports, the Bureau of Public Procurement (BPP) is to revise and enforce procurement rules that prioritise Nigerian-made goods and homegrown solutions across all Ministries, Departments and Agencies (MDAs). In addition, the BPP will create a comprehensive compliance mechanism to ensure all government procurements adhere to local content requirements.

Similarly, a regularly-updated database of high-quality Nigerian suppliers will be maintained by the BPP and used as a reference for all procurement decisions while procurement officers currently deployed to various MDAs will be reverted to the BPP to ensure compliance and reduce undue influence or corruption. In a situation where foreign contracts are unavoidable, they must include provisions for technology transfer, local production, or capacity development in Nigeria. The government decried the situation where local capacity being neglected leading to Nigeria importing sugar despite the existence of the Nigerian Sugar Council and several local producers. By making local content central to government spending, the administration hopes to drive job creation, industrial growth, and sustainable economic development. While the policy is expected to face implementation challenges and resistance from entrenched procurement interests, Nigerians are of the opinion that the government itself might lack the political to follow through with the provisions of the proposed order as happened with Executive Order No.5 and many others.

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Justification for the Study

The justification for the study is that there is an urgent need to assess the implications of using Presidential Executive Orders, which are presidential directives that have the potential to address emergent or urgent matters of state used by any American administrations. In Nigeria, executive orders are largely-untapped pieces of necessary legislation aimed at fast tracking the deployment of particular presidential initiatives in lieu of legislative scrutiny and input, which are expected to follow subsequently. In Nigeria, apart from the statutory order by President Obasanjo and the series of executive orders signed by the former President Muhammadu Buhari, executive orders have not been adequately utilized by successive governments and have, therefore, not elicited the necessary level of attention in Nigerian academic circles hence the present study.

II. Methodology

The study adopted the qualitative study approach by using data obtained from official publications, and external sources comprising principally secondary data sourced from existing related literature. This approach afforded the study the opportunity to benefit from the wide array of literature depicting the implications of executive orders in fostering Nigeria's industrial and technological development as well as the opportunities for local talent and firms.

Significance of the Study

The significance of the study is on the perceived nexus between creating enabling legislation focused on promoting indigenous industrial technological development and the consequential enhanced recognition and contribution of Nigerian engineers to this undertaking. The study, therefore, seeks to contribute to existing literature on leveraging strong legislative framework for the attainment of national development goals.

Background to the Study

National development has been the preoccupation of successive government in Nigeria especially as it concerns such concepts as modernisation, industrialisation, scientific and technological advancement, and infrastructural development aimed at improving the quality of life of the citizens (Ujah-Ogbuagu, 2021).

It is against this backdrop that Chete, *et al.,* (2014) noted that the structure of the Nigerian economy situates it as one that is typical of an underdeveloped economy as over half of her gross domestic product (GDP) is generated by the primary sector with agriculture continuing to play an important role. On the other hand, the oil and gas sector continue to be a major driver of the economy, accounting for over 95 per cent of export earnings and about 85 per cent of government revenues while the industrial sector and manufacturing sector in Nigeria accounts for only about six and four per cent of economic activity respectively. To address this, Nigeria launched a series of National Development Plans, four in all between 1962 and 1985, to address the perceived structural defects of the Nigerian economy and launch her on the path of industrial and technological development.

However, factors ranging from a high degree of technological dependence on foreign know-how, a global economic recession which sparked declining foreign exchange earnings, balance of payment problems and unemployment in the Nigerian economy. Hence, it became manifest that existing strategies for industrial and technological development could neither solve the problem of economic underdevelopment nor address the social ones created by mass poverty, unemployment, and insecurity facing the nation. Consequently, it became apparent that alternative development paradigms had to be explored on account of technical, economic and social imperatives.

This led to the adoption of the Structural Adjustment Programme (SAP), which was adopted by Nigeria in 1986, as an alternative framework for addressing the shortcomings of previous national development planning efforts. That same year, a national science and technology policy was launched to increase public awareness of the vital role of science and technology in national development. In addition, the policy aimed at directing research efforts towards identified national goals as well as translate these researches into actual goods and services. Thus, it could be said that the policy gave further recognition to science and technology as a vehicle for successful industrial development in Nigeria.

As noted by Chete, *et al.,* (2018) citing Bamiro (1994) and Oyeyinka (1997), little progress was, however, been recorded in the nation's science and technology realm in spite of the policy. It is, therefore, this lack of progress in terms of the nation's desire to foster her industrial and technological development that forms the backdrop for the birth of Executive Order No.5 of 2018, which, among others, aims to leverage Nigeria's science, engineering and technology sectors to give

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the needed impetus to her industrial and economic development efforts.

The study, therefore, seeks to explore Nigeria's lack of requisite industrial and technological development as a consequence of the absence of necessary legislation that would have served as impetus to growth and which the signing of Executive Order No.5 has come to address. Hence, with faithful implementation, Nigerian engineers stand to benefit in terms of recognition and increased patronage.

Theoretical Frameworks of the Study

A theoretical framework is the blueprint of a study, (Grant & Osanloo, 2014),). Similarly, a theoretical framework describes the broader lens through which a researcher views the topic and guides their overall understanding and approach. It connects his theoretical perspective to the data collected and how it is to interpreted. In effect, it offers a structure for organising and interpreting the data collected (Hecker & Kalpokas (2025). This study focused on the use of Presidential executive orders to enhance industrial and technological development of Nigeria. Executive orders can be seen as tools for bureaucratic action, enabling the executive branch to mobilise resources and direct agencies towards specific industrial and technological goals.

In this regard, several theoretical frameworks could be suggested. One is Institutional Theory, Public Administration Theory, and Economic Theory, Residual Power Theory, Inherent Power Theory and Strategic Management Theory, among others. In this study, institutional theory, Residual Power Theory and Inherent Power Theory are adopted as they are frameworks that study how institutions establish norms and rules that shape behaviour as well as how governments exercise their powers. Institutional theory is a framework for analysing organisations and their behaviour within the context of the broader social, political, and cultural environment. It focuses on how institutions, which are defined as established norms, rules, and beliefs, shape organisational structures, practices, and decisions. This theory asserts that organisations are not solely driven by efficiency or economic factors but also by the need to conform to institutional expectations to gain legitimacy, stability, and resources (MBA, 2025).

In the same vein, Silva, *et al.,* (2023) note public administration and public policy scholars have long emphasized the importance of institutional theory for understanding policy action and institutional change. Over the years, the role of institutions in shaping economic and political behaviour and development has been recognised across major social sciences disciplines.

Furthermore, Lee (2025) posits that institutional theory, originating in sociology and organisational studies, has increasingly become central to the analysis of public policy. The theory posits that institutions, which are also to be regarded here as well as comprising formal rules, informal norms, and shared beliefs, play a pivotal role in determining policy outcomes. In a global context, public policies as expression of institutional theory, do not usually arise in a vacuum as they are embedded in long-standing institutional frameworks that guide decision-making, shape expectations, and sometimes constrain options. Hence, executive orders are presidential proclamations that are made in response to particular and often urgent exigencies and proceed from the long-standing powers of governments to initiative key legislation to achieve key objectives of state.

Another highly-relevant as highlighted in Ladan (2018) is the Inherent Power Theory. Citing Black's Law Dictionary, he defines 'inherent power' as the power that necessarily derives from an office, position or status. According to this theory, a Chief President can exercise any function which is inherent in nature, though there might not be any specific legislation conferring authority on him to so act. Citing Tribe (1978), he asserts that EOs cover those executive activities which, because of their peculiar nature, could not realistically have been anticipated and enumerated in advance.

Also, of significance is Residual Power Theory (ibid:57). Under this theory, executive power is all about the residual powers wielded by the executive after the excision legislative and judicial powers. An important aspect of the theory which conforms to modern government practice is that the formulation of policy and enforcement of laws made by the legislature and judicial decisions are classified as executive powers. As a consequence, executive orders can be seen as institutional mechanisms to alter or reinforce the rules governing industrial and technological development.

III. Literature Review

According to Ladan (2018), the executive arm of government, headed by the president, as obtained in a presidential system of government, sometimes performs legislative functions necessary to meet urgent and expedient matters of national development and changing circumstances by

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making regulations, issuing executive/statutory orders, proclamations and memoranda.

Consequently, Kuforiji (2021) describes an executive order as a directive issued by the President of a country to an executive branch of his government about how government agencies are to use their resources noting that these executive orders have the force of law. In the same vein, while highlighting the impact of President Trump's Executive Order in the context of AI regulation, Sbailò, 2024:275) notes that EOs are particularly effective, as they could facilitate rapid establishment of priorities and standards in this emerging field. Hence, the study opines that, executive orders, as issued by an American President, is binding on government agencies, even if they do not constitute laws passed by Congress. They can be regarded as handy instruments through which American Presidents direct the actions of government agencies, often to address innovative and complex topics in anticipation of legislative scrutiny and imprimatur. It is to be recalled that in 2019, Donald Trump had issued EO 13859 titled: *Maintaining American Leadership in Artificial Intelligence*, which is a landmark directive that virtually established the American AI Initiative and set the groundwork for U.S. technological leadership.

While also noting that executive orders are primarily designed to guide the actions of government officials and agencies, Levy & Madden (2025) state that they not create new laws or override existing federal statutes but can, however, have a direct or indirect impact on the ongoing government business, functions or compliance obligations of both private and public organisations.

In terms of enforcement, while EOs can be used to direct agencies on how to interpret and enforce existing statutes or regulations, the President could not unilaterally impose legal obligations on private parties through an executive order. However, such orders can indirectly affect businesses and individuals, who are bidding for government contracts or federal funding.

Ndadama (2023) describes the Presidential Executive Order No. 5 as a transformative policy designed to drive innovation, promote Nigeria's industrial and technological development as well as catalyse Nigeria's economic diversification and promote domestic and foreign investments. It will also reduce dependence on foreign goods and the strain on the naira, while facilitating massive job creation and industrial growth. In effect, EO5will promote the capacity of Nigerian professionals and contractors in science, engineering, and technological fields to compete favourably with their counterparts globally.

Core Principles of Executive Order No. 5

Executive Order 5 outlines a comprehensive and structured approach to the imperative of "providing support for Made-in-Nigeria goods and services, the development of homegrown capability, and the capacity to maintain, redesign, reproduce, rededicate, and duplicate any infrastructure built in Nigeria for self-reliance and development."(Ndadama, 2023). Therefore, Executive Order No.5, which was to take immediate effect, mandates:

- All Ministries, Departments and Agencies (MDAs) of the government to engage indigenous professionals in the planning, design and execution of national security projects, and to maximize domestic capacity in all contracts and transactions with science, engineering and technology components.
- All procuring authorities must give preference to Nigerian companies and firms in the award of contracts in line with the Public Procurement Act, 2007. That is, procuring entities can only give preference to foreign companies and firms where it is certified by the relevant authority that expertise is lacking in Nigeria, and such foreign company and firm must have a demonstrable and verifiable plan for indigenous capacity development, prior to the award of such contracts.
- Nigerian companies or firms duly registered in accordance with the laws of Nigeria with current practicing licenses must take the lead in any consultancy services involving joint venture relationships and agreements relating to law, engineering, ICT, architecture, procurement, quantity surveying, etc.
- MDAs must ensure that before the award of any contract, Nigerian counterpart staff are engaged from the beginning to the end of the project and must also adopt local technologies that meet standards set by the National Office for Technology Acquisition (NOTAP) or other relevant local authorities.
- The Ministry of Interior is prohibited from giving visas to foreign workers whose skills are readily available in Nigeria. MDAs must ensure that all professionals practicing in the country are duly registered with the appropriate regulatory bodies in Nigeria and that all foreign professional certificates are domesticated with the relevant professional bodies before being

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considered for any contract award or employment in Nigeria.

- Agreements involving any joint venture or public private partnership between a foreign firm and a Nigerian firm, for technology acquisition or otherwise, must be registered with the NOTAP in accordance with the provisions of the NOTAP Act, before such contracts are signed by the MDAs;
- A Nigerian company or firm may not be disqualified from a contract award by any MDA based on its year of incorporation except on the basis of lack of qualification, competence and experience of the management in the execution of similar contracts;
- The NOTAP is required to develop, maintain and regularly update a database of Nigerians with expertise in science, engineering, technology and other fields. It is this database that the Ministry of Interior must consult in determining the availability of local skilled manpower in science, technology and innovation prior to the grant of an employment contract to a foreigner under Nigeria's Expatriate Quota (EQ) system.
- Where qualifications and competence of Nigerians are either unavailable or unascertainable, the Ministry of Interior must ensure that any EQs for projects, contracts or programmes are granted in line with the provisions of the Immigration Act and other relevant laws and may create special immigration classifications to encourage foreign expatriates (particularly from African countries) to reside and work in Nigeria for the purpose of sharing knowledge with Nigerian professionals.
- The Federal Inland Revenue Service and the Ministry of Finance are required to ensure that tax incentives are granted to existing machine tools companies (including foundry, machine shop, forge shop, and indigenous artisans) to boost local production of their products while tax incentives may be granted to SMEs and foreign firms for the utilization of local raw materials that are authenticated by the Raw Materials Research and Development Council.

In essence, the President, pursuant to the authority vested in him by the Nigeria's 1999 Constitution, as amended, mandated all procuring agencies to give preference to Nigerian companies in the award of contracts in line with the Public Procurement Act, 2007. In doing this, the Buhari administration had responded to the challenge of inadequate local content in public procurement having recognised the imperative of promoting Nigeria's industrial technological competence through effective legislation.

EO5: An Innovative Strategy for Boosting Local Content in Public Procurement

According to Kuforiji (2018) and (Oluwole, 2023), the import of Executive Order No.5 lies in its ability to identify and address the challenges of near absence of local content in public procurement in Nigeria. In effect, this innovative piece of legislation is structured around the following objectives:

- *Development of local capacity in the Nigeria's information technology and engineering sector*: Executive Order 5 seeks the development of local capacity in the Nigeria's information technology and engineering sector through engaging indigenous professionals in the planning, design and execution of national security projects, and to maximize domestic capacity in all contracts and transactions with science, engineering and technology components. To achieve this, EO5 mandates all ministries, departments, and agencies (MDAs) of the Federal Government of Nigeria to give preference to Nigerian companies and firms during procurement. Hence, MDAs must ensure that before the award of any contract, Nigerians are engaged from the beginning to the end of the project and must also adopt local technologies that meet standards set by the National Office for Technology Acquisition (NOTAP) or other relevant local authorities.

- *Strengthening the rules for determining what constitutes a permanent establishment or fixed base for a foreign firm operating in Nigeria:* This issue has been largely straightforward over the years. However, (Oluwole, 2023) stated that the concept of significant economic presence, introduced by the Finance Act, 2019, has expanded the ways in which a permanent establishment may be assessed in Nigeria. EO5 also mandates that Nigerian companies or firms (companies with at least 51% control vested in Nigerians) shall be the lead in any consultancy involving joint venture relationships and agreements relating to Law, Engineering, ICT, Architecture, Procurement, Quantity Surveying, among others. The decision of the decision of the Tax Appeal Tribunal in *New Skies Satellites B.V. v FIRS* is significant in this regard.

- *All procuring authorities must give preference to Nigerian companies and firms in the award of contracts in line with the Public*

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Procurement Act, 2007: In essence, procuring entities can only give preference to foreign companies and firms where it is certified by the relevant authority that expertise is lacking in Nigeria, and such foreign company and firm must have a demonstrable and verifiable plan for indigenous capacity development, prior to the award of such contracts. Hence, Nigerian companies or firms duly registered in accordance with the laws of Nigeria with current practicing licenses must take the lead in any consultancy services involving joint venture relationships and agreements relating to law, engineering, ICT, architecture, procurement, quantity surveying, among others.

- *The Ministry of Interior is prohibited from giving visas to foreign workers whose skills are readily available in Nigeria:* MDAs must ensure that all professionals practicing in the country are duly registered with the appropriate regulatory bodies in Nigeria and that all foreign professional certificates are domesticated with the relevant professional bodies before being considered for any contract award or employment in Nigeria.

- *Official Registration of Agreements with NOTAP:* All agreements involving any joint venture or public private partnership between a foreign firm and a Nigerian firm, for technology acquisition or otherwise, must be registered with NOTAP in line with the provisions of the NOTAP Act, before such contracts are signed by any MDA. Hence, NOTAP is required to develop, maintain and regularly update a database of Nigerians with expertise in science, engineering, technology and other fields. It is this database that the Ministry of Interior must consult in determining the availability of local skilled
manpower in science, technology and innovation prior to the grant of an employment contract to a foreigner under Nigeria's Expatriate Quota (EQ) system. Where qualifications and competence of Nigerians are either unavailable or unascertainable, the Ministry of Interior must ensure that any EQs for projects, contracts or programmes are granted in line with the provisions of the Immigration Act and other relevant laws and may create special immigration classifications to encourage foreign expatriates (particularly from African countries) to reside and work in Nigeria for the purpose of sharing knowledge with Nigerian professionals.

- *Granting of tax incentives to existing machine tools companies:* The Federal Inland Revenue Service and the Ministry of Finance are required to ensure that tax incentives are granted to existing machine tools companies (including foundry, machine shop, forge shop, and indigenous artisans) to boost local production of their products while tax incentives may be granted to SMEs and foreign firms for the utilisation of local raw materials that are authenticated by the Raw Materials Research and Development Council.

Impacts of Executive Order No.5 on Nigeria Industrial and Technical Development

Rabiu (2018) opines that Executive Order Number No. 5 gives tremendous advantage to local engineering firms, MDAs and national R & D establishments to compete favourably with any foreign engineering firms within the country and marks the beginning of a new era in the nation's march to national development. It should be borne in mind that a nation's manufacturing capacity is her engine for economic development. In fact, very few countries have developed their economies without developing a strong manufacturing base, hence, the term "industrialised country" and "developed country" are often taken to be synonymous. (UNECA). As pointed out earlier, the manufacturing sector in Nigeria forms just a tiny fraction of her GDP, a situation that is compounded by her dearth of relevant skilled professionals coupled with the lack of recognition by the political class in Nigeria.

Similarly, Adeodu, *et al.,* (2015) expressed similar sentiments as the study highlights the unfortunate experiences of the few indigenous engineering and technological concerns to include the lack of appreciation of the role of indigenous engineering and technology in national development by the political leadership and the general public, who largely perceived these as being inferior to foreign professionals and technologies.

According to Ogunfunwa (2017), Prof. Babatunde Ogunnaike, a Professor of Chemical Engineering and Dean, College of Engineering, University of Delaware, United States of America, while speaking on the theme: 'Engineering Education, Research and Development in the 21st Century Africa', had stated succinctly that Nigeria could not continue to wait for Western engineering experts to proffer solutions to its problems. "The economic downturn was as result of failure to believe in ourselves, it is high time we looked for solutions among ourselves rather than waiting for Western engineering to provide solutions for the country. Nigeria's efforts will end up in vain if the government does not look more to the indigenous engineering sector for solutions."

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[In its reaction, the NSE, which revealed that it had taken ownership of the document and has been monitoring its implementation (Orjime, 2023), stated that the signing of E05, had empowered and protected local engineers, local suppliers and local contractors such that Nigerian engineers could lead projects but noted that signing of the executive order might not be enough, and called for its enforcement, government's full backing and encouragement to enable Nigerian engineers to secure and also lead the execution of projects. The body noted that the full implementation of the executive order with respect to local content will not only drastically reduce capital flight but also reduce unemployment and boost Gross Domestic Products (GDP) of the country (*Independent*, 2019). The NSE, however, NSE wanted the Federal Government to strictly implement the order adding, "this is a collective thing that includes our efforts by working hard to make sure it is fully implemented." (NAN, 2019).

On the other hand, Gbonegun (2023) noted that even though Executive Order 5 is fantastic in conception, it is not enforceable as there are no laws backing it, which is generally the case if there is no robust executive backing for it (Ladan, 2018) especially as other arms of governments are not bound by its provisions and the Federal Government not fully keen on enforcing it. The study noted that the benefits of EO5 are tremendous but can only be harnessed if there are laws backing it then even the private sector will have to comply.

Furthermore, Lee (2025) opines that though Congress has the power to overrule an Executive Order of an American President with new legislation, this can be difficult to do so as it may require significant political effort, particularly when the president's party holds a majority.

Adekunle (2020) says Executive Order No. 5 shall give preference to Nigerian companies and firms in the award of contracts in line with the Public Procurement Act of 2007. The article noted that a faithful implementation of EO5 and the Act, which made it mandatory for the Accountant-General of the Federation to release a certain percentage on every contract awarded in Nigeria to the coffers of the Council for the Regulation of Engineering in Nigeria (COREN) as it will strengthen the body to effectively play its statutory role especially in terms of dealing with quacks, among others. Another issue emanating from the appraisal of the implementation of EO5 by COREN is that despite the preponderance of databases for Engineers, Technologists and Artisans in Nigeria as demanded by EO5, many construction sites across the country are still dominated by expatriates of equal qualifications, and some even without any skills at all.

In essence, although the conception of Executive Order No.5 is the tonic needed for the rapid development of Nigeria's industrial technological development especially in terms of placing Nigerian engineers in a vantage position to secure as well as lead the conception and execution of infrastructural projects in the country. E05 also has the capacity to boost local content and the Gross Domestic Products (GDP) of the countrywhile drastically reducing capital flight and unemployment boost.

Discussion of Findings

It is evident from the above analysis, that presidential executive orders in both Nigeria and the USA are legitimate enforceable subsidiary legislative instruments and are valid administrative tools for enhancing good governance. Such orders, if made within the constitutional and statutory limits, do not necessarily derogate from principles of separation of powers and checks and balance. Constitutionally, the executive performs legislative functions through initiating bills for the consideration of the legislature. Under section 315, the Constitution of Nigeria empowers the President to unilaterally alter or modify any existing law made before the 1999 Constitution took effect, which he considers necessary or expedient to bring that law into conformity with the provisions of the Constitution. In Nigeria, the president is also empowered to assent to and approve bills and to veto a bill by withholding his assent. This is, however, subject to the power of the legislature to override the presidential veto (Ladan, 2018).

As noted by (Isaac, 2024), it is the acknowledgment of the significance of science and technology in national and economic development, particularly through the promotion of local technologies, that propelled former President Muhammadu Buhari to sign Executive Order No. 5 back then on 2nd February, 2018. Through this landmark order, the President directed all agencies of the government to involve indigenous professionals in the planning, design, and execution of national security projects and to prioritise indigenous capacity in all contracts and transactions involving science, engineering and technology components. This agenda, therefore, aims to harness domestic talents to drive national competitiveness, productivity and economic activities for the

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attainment of national industrial and technological development.

To Kwen (2023), Executive Order No. 5 will help drive innovation, promote science and technology, while fast tracking the country's economic diversification. The order has, as its objectives, the provision of support for Made-in-Nigeria Goods and Services, the development of homegrown capability, and the capacity to maintain, redesign, reproduce, and duplicate any infrastructure built in Nigeria for the purpose of self-reliance and national development. As part of the broader implementation strategy of the order, various policies and programmes are already at advanced stages of operationalization. These include such initiatives as the *National Strategy for Competitiveness in Raw Materials and Products Development; National Leather and Leather Products Policy (NLLPP*) as well as the *Clean Technology Programme*; *National Policy on Welding and Related Fields, Methanol Fuel Technology Programme*; *Technology and Innovation Centres, Promotion of Locally-Invented Digital Addressing Technology* and the *Nigeria National Innovation Commercialisation Programme.*

With the signing of EO5, Nigeria is doing what she should have done all along to leapfrog her technological aspirations. According to Isaac (2024), nations that prioritise investments in science and technology reap the benefits of continuous productivity growth and equitable industrial development. Therefore, prioritising science and technology is key to unlocking sustainable prosperity.

Contributing to the discourse, Oluwole (2023) notes Executive Order 5 will also help to develop local capacity in the Nigeria's information technology and engineering sector through increased Nigerian content in public procurement. To achieve this, it mandates all ministries, departments, and agencies of the Federal Government to give preference to Nigerian companies and firms during procurement.

Steps taken by Government to Actualise Executive Order No.5

To signal the determination of the government of the day to turn things around, Issac (2024) pointed out that

- Owing to its potential for job creation, the budgetary allocation to this sector has been increased to swiftly uplift the populace from poverty, thereby mitigating unrest across the country.
- To translate words into action, upon assuming office as President, a memorandum of understanding (MoU) was signed with the Republic of Cuba to enhance collaboration on science and technology between the two countries. The areas of cooperation under the agreement include biotechnology, scientific research and innovation, technological development, human resource development, specialist exchanges in science and technology, as well as technology transfer for development purposes.
- he President also announced that the government will enhance the technology and innovation centres established by the Federal Government across the country's six geopolitical zones to facilitate the transition to a production-based economy. These centres will act as hubs to bring together all stakeholders in the science, technology and innovation ecosystem to harness material and human resources for global development.
- the current Minister of Science, Technology and Innovation, Chief Uche Nnaji, highlighted the significant progress made by the ministry to fulfill its mandate, including guiding technological development, enhancing research and development, formulating policies, overseeing and promoting all aspects of the science and technology ecosystem in the country.

Opportunities And Challenges for the Nigerian Society of Engineers within the Context of Executive Order No. 5

When the Presidential Executive Order No.5 was signed by former President Muhammadu Buhari in 2018, Nigerians rightly celebrated thinking the proclamation marked a watershed in the nation's march to accelerated national industrial and enhanced technological development. However, as events have shown, most of the provisions of the order are to yet to be fully implemented, hence there is the issue of faithful implementation of the order. Nwaozor (2021) states that the order in question is a welcome development and a step in the right direction, but raised the issue of foreign professionals and firms, who are already domiciled in Nigeria and are practicing in Nigeria. Hence, he suggested the inclusion of additional clauses to address this lacuna. The study asked whether these foreign entities would be segregated during public procurement processes are they to be equal to indigenous professionals?

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Another lacuna has to do with the obvious of a framework for fostering indigenous skills as a dedicated agency saddled with the responsibility of developing and grooming local professionals.

Gbonegun (2024) drew attention to the preponderance of expatriate engineers and firms coupled with their unbridled patronage despite the existence of the order many years after its signing. The study asserts that this neglect of local expertise has not only limited the growth potential of professionals in science, technology, and engineering, but has also made local competences look inferior and lacking in requisite skills. Consequently, jobs meant for indigenous engineering firms are awarded to foreigners on the excuse that expatriates perform better than their local counterparts with Nigerians acting, as best, as mere consultants with 96 per cent of the construction industry is still being dominated by foreign contractors because of this obnoxious reasoning that indigenous contractors cannot be entrusted with complex engineering projects.

Regrettably, there are reports of government agencies passing over local firms on account of poor monitoring and implementation of relevant regulations, EO5 inclusive, with no sanction whatsoever as proposed by the Presidential Monitoring and Evaluation Council, established to oversee the implementation, whereas many developed and developing nations like the United States of America, China, Singapore, South Africa, and others have used such policies to promote local competencies and aid technical capacity development, resulting in unmitigated capital flight (Ibid).

of the contracts awarded to Nigerian companies are executed overseas, thereby defeating the primary objective of Nigerian local content initiatives to develop in-country capacity by executing contracts using local competencies, and resources.

Lamenting the situation, Gbonegun (2024) quoted an executive committee member of the Nigerian Society of Engineers (NSE), Ibrahim Hammadikko, as saying that most multinationals operating in the country do so with little or no significant Nigerian content, therefore, recommending that the Order be sponsored as a bill to the National Assembly so that it can be passed and signed by the President, to make it an Act. Furthermore, the study quoted the Managing Partner, Dynamic Initiative Limited, Akintayo Akintola, who was also the former NSE Chairman of the Ikeja branch, Lagos State, Nigeria, who said: "Executive Order 5 is another pretense by the government to favour politicians. The BPP law says it is only when you can't find an indigenous contractor that you can give a contract to a foreign firm. But Executive Order 5 is also now interpreted by politicians to mean that, to prevent any delay when the job is urgent, give it to foreign contractors. We make laws in Nigeria yet counter the law with another." He also noted that a large volume of jobs given out by the Federal Ministry of Works goes to foreign contractors.

According to Banwo & Ighodalo (2018), the thrust of EO5 is its recognition of the vital role of indigenous professionals in national economic development, especially as regards harnessing domestic talent and the development of indigenous capacity in science and engineering for the promotion of industrial and technological innovation needed to drive national competitiveness, productivity and economic activities which will invariably enhance the achievement of the nation's development goals. The study noted that the goals have been previously encapsulated in a number of policy documents, such as the Vision 20:2020; National Science, Technology and Innovation Policy (NSTIP) first approved by the Federal Executive Council in 2012; Economic Recovery and Growth Plan, (ERGP 2017 – 2020); Science, Technology and Innovation Strategy (STISA) 2024 and 2063; and Nigeria's targets under the United Nation's Sustainable Development Goals, (SDG 2030).

IV. Conclusion

The study discusses the implications of Executive Order No.5 in fostering Nigeria's industrial and technological capabilities and the opportunities therein for enhancing local content and talent. It also noted that other countries had leveraged executive orders to achieve their national development goals through faithful implementation of the provisions of such orders. While noting the availability of local talent in science and technology, the challenge has been largely in terms of their recognition and patronage. Consequently, government agencies will rather award engineering contracts to foreign firms and professionals citing urgent national imperatives to conveniently bypass indigenous ones.

The paper while noting the abundance of local talent in Nigeria, pointed out that the executive order could have fast track the country's march to industrial and technological greatness if the Government had followed through with its full implementation. Aside this, there are also other institutional challenges including lack of requisite training facilities for indigenous engineers; lack of

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confidence in the capacity of local talent to execute complex engineering projects; and the lack of punitive measures against infractors, among others. The study, however, noted the genuine efforts of the current government to institutionalise several such initiatives as the *National Strategy for Competitiveness in Raw Materials and Products Development;National Leather and Leather Products Policy* as well as the *Clean Technology Programme*, among others, stimulating and promoting the country's industrial and technological growth. As a way forward, the study suggests some far-reaching strategies for facilitating Nigeria's industrial and technological development that could be adopted to achieve this goal. These include the need for the government to put in necessary facilities for training of young aspiring engineers, muster the political will to faithfully implement the order, re-orient government as to the need to embrace local content in their procurement processes as well as punish violators to serve as a deterrent to others, among others.

Consequently, there is no doubt that EO5 will boost domestic production of goods and services and thus create jobs and improve investment in science, technology and engineering in Nigeria as companies that employ foreign professionals on long-term contracts will be required to employ Nigerians to understudy their foreign experts to enable them acquire the requisite skills for the eventual takeover of such expatriate positions, hence the need to ensure that EO5 has the force of law, there will be higher compliance rate.

V. Recommendations

To make Executive Order No.5 actually work or Nigeria's industrial and technological development while providing opportunities and minimizing extant challenges confronting Nigerian engineers prior to the signing and despite the signing of order. Kuforiji (2018), Ladan (2018), Ogunfunwa (2017),and Nwaozor (2021) opine that while the signing of the EO5 is a positive development for Nigeria and the West African economy, there may be a need to incorporate the provisions of the EO5 in an executive bill to be enacted into law by the National Assembly in the near future in order to achieve maximum impact. As observed earlier, notes that the order needed to be reviewed to accommodate foreign firms and professionals already practising in the country.

The study also advocated the establishment of a special agency specifically charged with the responsibility of developing the requisite indigenous skills as well coming up with the needed mechanism towards adequately implementing the document as well as actualizing every clause enshrined in it on behalf of the government.

Another point to note is that those who are well imbued with technology-related knowledge were not recognized nor patronized, therefore, leading to the exodus of these professionals from Nigeria. Hence, conscious strategies needed to be adopted to accord necessary recognition to Nigerian engineers and other professionals so as to ensure their positive contributions to national development.

The major pointers from review of executive orders in Nigeria is that unlike in the USA, where landmark achievements have been recorded in both the historic and recent use of executive orders, there appears to be a lack of proper record of the frequency in the use as orderly and systematic collection, numbering, registration and publication of executive orders in Nigeria. Hence, such needs to be done to assess the impact of Executive Order No.5 on the promotion of industrial and technological capacity of Nigeria especially as it impacts according indigenous engineers their just due. The study equally advocates the drafting strategic implementation guidelines for each of the executive orders towards guaranteeing the realization of the laudable objectives and initiatives being pushes by successive orders.

Public participation and feedback are vital to the implementation of any executive orders. Hence, it is incumbent on the government to mount elaborate enlightenment campaigns to secure the buy-in of the public. With respect to EO5, the perception of the public regarding its perception of the competence of Nigerian engineers need to be changed.

Both the Office of the Attorney-General of the Federation and Minister of Justice as well as the Federal Ministry of Information and National Orientation should ensure public accessibility through regular publication and dissemination of executive orders.

Necessary facilities for the training of young engineers should be put in place. A situation whereby some engineering graduates have to acquire relevant skills in the use of computer-aided design (CAD) software by watching YouTube videos or joining online communities is not ideal as these cannot adequately measured up to learning under experienced instructors.

Similarly, an effective and practical-oriented curriculum focused on solving Nigeria's pressing issues should be designed for the teaching of engineering to replace the old methods as

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students' creativity could easily be eroded through the traditional mode of learning.

References

[1]. Adaramola, Z. (2022). FG's Executive Order 5 and technology innovation in Nigeria. *Daily Trust*.

[2]. Wed., 11 May 2022.https://dailytrust.com/fgs-executive-order-5-and-technology-innovation-in-nigeria/

[3]. Adekunle, R. (2020). COREN urges FG to ensure implementation of Executive Order No. 5. Nigerian Tribune. July 5, 2020.https://tribuneonlineng.com/coren-urges-fg-to-ensure-implementation-of-executive-order-no-5/

[4]. Bashir, T. & Oguntuase, O. (2018).President Buhari Signed Executive Order No. 5 for

[5]. Development of Local Content in Science, Engineering and Technology. Banwo & Ighodalo (2018). *The Grey Matter.* https://www.banwo-ighodalo.com/assets/greybmatter/..bdf03.pdf

[6]. Chete, L. N., Adeoti, J. O., Adeyinka, F. M., and Ogundele, O. (2014). Industrial development and

[7]. growth in Nigeria: Lessons and challenges. Learning to Compete: Working Paper No. 8. Nigerian Institute of Social and Economic Research (NISER), Ibadan. https://www.brookings.edu/wp-content/uploads/2016/07/L2C_WP8_Chete-et-al-1.pdf

[8]. Cohen, Elie (2006). Theoretical foundations of industrial policy, EIB Papers, ISSN 0257-7755,

[9]. European Investment Bank (EIB), Luxembourg, Vol. 11, Issue. 1, pp. 84-106

[10]. Eche, C. (2022). Executive Order 005 provides Local content for development – Minster. Voice of

[11]. Nigeria. https://von.gov.ng/executive-order-005-provides-local-content-for-development-minster/

[12]. Gbonegun, V. (2023). 'Executive order 5 not backed by law, can't be enforced'. *The Guardian.*

[13]. 14 Aug., 2023. https://.guardian.ng/property/executive-order-5-not-backed-by-law-cant-be-enforced-3/#google_vignette

[14]. Gbonegun, V. (2024). Executive Order 5: Why construction sector remains outsourced to

[15]. expatriates. *The Guardian.* 10 Dec 2024. Downloaded from https://guardian.ng/news/executive-order-5-why-construction-sector-remains-outsourced-to-expatriates/

[16]. Grant, C., Osanloo, A. (2014). Understanding, Selecting, and Integrating a Theoretical

[17]. Framework In Dissertation Research: Creating the Blueprint for Your "House" Downloaded from https://files.eric.ed.gov/fulltext/EJ1058505.pdf

[18]. Hecker, J., Kalpokas, N. (2025). The Ultimate Guide to Qualitative Research - Part 1: The

[19]. Basics. ATLAS.ti Newsletter. https://atlasti.com/guides/qualitative-research-guide-part-1/conceptual-vs-theoretical-framework

[20]. Isaac, N. (2024). Executive Order 005: Recognising Transformative Potential of STI For Economic

[21]. Devt. Science Nigeria. April 10, 2024. Downloaded from https://sciencenigeria.com/executive-order-005-recognising-transformative-potential-of-sti-for-economic-devt/

[22]. Isaalah, S.O. (2025). Govt's Executive Order 5, tech innovation in Nigeria. The Trumpet, February, 12, 2025. https://thetrumpet.ng/govts-executive-order-5-tech-innovation/

[23]. Kuforiji, O. (2018). An Overview of Executive Order N0. 5 preventing foreigners from

[24]. Obtaining jobs Nigerians can do. LinkedIn. March 2, 2018. https://legalnaija.com/an-overview-of-executive-order-n0-5/

[25]. Kwen, J. (2023). Full Implementation of Executive Order 5 Will Boost Economy, Reduce Poverty

– Federal Govt. *Leadership*. https://leadership.ng/full-implementation-of-executive-order-5-will-boost-economy-reduce-poverty-federal-govt/

[26]. Independent (2019). NSE Urges FG to Act in Line with Executive Order 5 On Projects' Execution. Aug., 25, 2019. https://.independent.ng/nse-urges-fg-to-act-in-line-with-executive-order-5-on-projects-execution/

[27]. *Independent* (2020). Executive Order 5 Will Change Nigeria Permanently — Onu. Independent.
[28]. Feb 11, 2020. https://independent.ng/executive-order-5-will-change-nigeria-permanently-onu/
[29]. Ladan, M.T. (2018). The Legal Effect and Limit of Presidential Executive Orders in Nigeria and
[30]. The USA: A Review of Executive Orders 1-6 of 2017 - 2018 In Nigeria
[31]. Lee, S. (2025). The Core of Institutional Theory in Public Policy. Downloaded from
[32]. https://www.numberanalytics.com/blog/core-institutional-theory-public-policy
[33]. MBA (2025). Institutional Theory. 2025 MBA Brief. Downloaded from https://www.
[34]. mbabrief.com/what_is_institutional_theory.asp
[35]. NAN (2019). Buhari's Executive Order 5 creates huge opportunity for professionals, economy. 16 Dec 2019. Htttps://guardian.ng/news/buharis-executive-order-5-creates-huge-opportunity-for-professionals-economy/
[36]. Ndadama, H. (2023). Nigeria To Fully Implement Executive Order For Tech Advancement
[37]. Oct., 7, 2023. https://von.gov.ng/nigeria-to-fully-implement-executive-order-for-tech-advancement/
[38]. Nwaozor, F. (2021). Reviewing Nigeria's Executive Order 5. October 17, 2021. Tekedia.
[39]. Downloaded from https://www.tekedia.com/reviewing-nigerias-executive-order-
[40]. Ogunfunwa, I. (2017). 'Engineers can solve Nigeria's problems, says don'. *Punch.* 30th January 2017. https://punchng.com/engineers-can-solve-nigerias-problems-says-don/
[41]. Oluwole, O. (2023). Local Content Rules of Executive Order 5 And Their Effect in Creating a
[42]. Permanent Establishment. TNP, April 24, 2023. Downloaded rom https://tnp.com.ng/insights/local-content-rules-of-executive-order-5-and-their-effect-in-creating-a-permanent-establishment
[43]. Onyekwelu, S. (2020).How executive order five enables NAF, Tranos potential partnership.
[44]. *BusinessDay*.August 19, 2020. https://businessday.ng/features/article/how-executive-order-five-enables-naf-tranos-potential-partnership/
[45]. Orjime, M. (2023). Engineers Call for Full Implementation of Executive Order 5. *Leadership.*https://leadership.ng/engineers-call-for-full-implementation-of-executive-order-5/
[46]. Orjime, M. (2023). Engineers Call For Full Implementation Of Executive Order 5. My Engineers.
[47]. March 5, 2023. *https://.www.* www.myengineers.com.ng/2023/03/05/engineers-call-for-full-implementation-of-executive-order-5/
[48]. Ozor, C. (n.d.). A Review of the Presidential Executive Order No. 5 – Promoting Nigerian Content
[49]. in Science, Engineering and Technology. DCSL. Downloaded from http://blog.dcsl.com.ng/wp-content/uploads/2018/03/A-Review-of-the-Presidential-Executive-Order-No.-5-Promoting-Nigerian-Content-in-Science-Engineering-and
[50]. PLNU (2025). What is Public Administration? History, Impact, and Theories. A Point Loma
[51]. Nazarene University Publication. Downloaded from https://www.pointloma.edu/
[52]. resources/adult-degree-completion/what-public-administration-history-impact-theories.
[53]. Projects' Execution: NSE urges FG to adhere strictly to Executive Order 5. *Infrastructure News*. August, 25, 2019. https://www.infrastructurenews.ng
[54]. Rabiu, B. (2018). Indispensability of the Engineering Profession in National Development. Full
[55]. text of a public lecture at the 2018 Engineering Week. Organised by the Nigerian Society of Engineers, Ajaokuta Branch, at the Ajaokuta Steel Company Ltd., Ajaokuta, on Thursday 15th August, 2018. /Rabiu_NSEDraftAddress.pdf
[56]. Sbailò, C. (2024). Executive Order 14110 Governing Artificial Intelligence: Technological
[57]. Leadership and Regulatory Challenges in an Era of Exponential Growth.The American Presidency After Four Years of President Biden DPCE online. September, 2024

[58]. Silva, L.C., Macredo, I, M., Thomson, M., (2023). Revisiting the debate on institutions, the state
[59]. and institutional change: The relevance of institutional theory to public administration teaching. https://journals.sagepub.com/doi/full/10.1177/01447394231159985
[60]. State House (2018). Presidential Executive Order (E05). https://statehouse.gov.ng/wp-
[61]. content/uploads/2018/02/presidential-executive-order-5.compressed.pdf
[62]. Ujah-Ogbuagu, B.C. (2021). Utilizing Emerging Technologies for National Development in
[63]. Nigeria: Challenges, Prospects and Strategies. International Conference on Innovative Systems for Digital Economy. ISDE'2021. Downloaded from
[64]. https://library.ncs.org.ng/download/utilizing-emerging-technologies-for-national-development-in-nigeria-challenges-prospects-and-strategies/
[65]. UNECA. Chapter 3: Theoretical perspectives on industrial policy. Transformative Industrial
[66]. Policy for Africa. Economic Commission for Africa. https://a rchive.uneca.org/sites/
[67]. defaultfiles/PublicationFiles/tipa-chap3_en.pdf
[68]. Vertakova, Y., Plotnikov, V., Babich, T. (2020). Conceptual framework of state economic policy
[69]. in the technological and social transformation conditions. E3S Web of Conferences 164,
[70]. 11016 (2020) Tpacee-2019. https://www.e3s-conferences.org/articles/e3sconf/
[71]. pdf/2020/24/e3sconf_tpacee2020_11016.pdf