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EFFICIENCY OF STRATEGIC PUBLIC INVESTMENT MANAGEMENT OF IN THE CONSTRUCTION SECTOR

Abstract: *In the course of the research, positive and negative effects of public investment management in the construction sector of low-income countries have been revealed. The negative effects of public investment management are connected with an insufficient level of public policy effectiveness and institutional capacity. In general, the lack of significant progress in all indicators of the efficiency of public governance for the period 1996–2020 was noted in low-income countries. The specified determinants of public governance have a negative impact on the ability to effectively manage investment in the process of implementing state projects in the field of construction with the involvement of international organizations in developed countries. The analysis of the efficiency components of the management of investment projects under the leadership of the public sector reveals gaps in the supervision, quality of monitoring and evaluation during the implementation of projects. Such gaps are caused by factors characteristic of low-income countries, namely: 1) little or no progress in implementing the investment budget; 2) management difficulties related to the low level of productivity of public sector personnel, shortage of personnel and the need for their training; 3) cumbersome administrative government procedures; 4) lack of planning of project maintenance processes, management training planning; 5) insufficient attention to the processes of project planning and monitoring; 6) the lack of institutional capacity for ensuring the efficiency of project implementation.*

Keywords: *Public Investment Management, Public Governance, Institutional Capacity, Management in the Investment Sphere, Low-Income Countries.*

1. Introduction

The limited national budgets of the governments of low-income countries and the weakness in governance have led to an increase in the cooperation level with international organizations and donors for attracting investments in the public

construction infrastructure (transport, communications, education, health care, etc.). Such cooperation ensures more efficient public investment management, for as much as it reduces the level of initial capital costs when international actors are involved (Barlow, Roehrich & Wright, 2013). From among the main positive effects, the following ones should be

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highlighted, namely: reduction of government administrative costs, distribution of risks, problem reduction of government budget restrictions, greater level of mobility and potential for investment attraction, innovativeness, etc. (Robert et al., 2014). At the same time, the efficiency of public investment management depends on a set of factors, including internal policy and institutional capacity, the public governance quality, the level of corruption, legality, etc.

The purpose of the academic paper lies in investigating the efficiency of public investment management in the construction sector in low-income countries.

2. Literature review

Studies on the efficiency of public management of investments testify to the presence of various effects of government financing of projects in the construction sphere. For instance, in the scientific work of Barlow, Roehrich & Wright (2013) it is argued about the ambiguity of private-public partnership models effectiveness in the construction of health care facilities.

The need to assess the efficiency of public management of investments is caused by the low level of efficiency of state investments in strategic objects due to corruption, bureaucracy, low level of capital accumulation. In many developing countries, a weak relationship between public capital expenditure and capital accumulation is observed and hence economic growth. Developing countries also experience high levels of non-implementation, non-completion of public projects (Chakraborty & Dabla-Norris, 2011). This leads to a low level of public investment productivity, which requires a methodology development for evaluating the public management efficiency of investment processes in various sectors. Institutional factors in making managerial decisions regarding public investment, the project selection quality and management play a significant role in the

projects effectiveness in various sectors of the economy. For instance, Flyvbjerg (2003) has revealed in his investigation that ineffective selection, monitoring and evaluation of infrastructure projects have negatively affected their completion in developing countries. Collier and Venables (2008) have found that limited information about public projects, low technical capabilities for preliminary assessment of project effectiveness, corruption have had a negative impact on the profitability of public investment projects. Guasch et al. (2007) claim that the operating environment inefficiency (in fact, the low level of operational management of investments) negatively affects investments in public projects, reducing their profitability in the mid-term perspective. Thus, strategic public management of investments is important in terms of project payback, efficiency of fiscal resources using, economic growth and productivity.

In order to assess the strategic public investment management efficiency, scientists use indices that are mainly built on available information about the features of various stages of the public investment life cycle (budget process, fiscal rules and practice). The study conducted by Dabla-Norris et al. (2012) describes the components of an index of public investment management (PIMI), which is built on the basis of estimates of public expenditures and financial accountability, taking into account the experience of countries in the management of public investments. The index developed by the authors makes it possible to analyse the actual power of institutions of state investment management. Dabla-Norris et al. (2012) have identified four main sequential phases related to public management of investments as follows: strategic management and project evaluation; project selection; project management and implementation; project assessment and audit. In the scientific work of Rajaram et al. (2010) eight key features of an effectively functioning public investment

system have been considered, namely:

- 1) investment management, project development and preliminary analysis;
- 2) formal project evaluation;
- 3) independent assessment review;
- 4) project selection and budgeting;
- 5) project implementation;
- 6) project adjustments;
- 7) facility operation;
- 8) project evaluation.

By the way, there are other indicators for evaluating the strategic public investments management efficiency as follows: Kaufman-Kraay governance indicators (including Government Effectiveness, the average of the Governance Indicators, and the Control of Corruption index), the World Bank’s Country Policy and Institutional Assessment (CPIA) index, and the World Bank’s Project Performance Ratings dataset. However, in general, there are few studies in the scientific literature regarding the public investment effectiveness and its empirical evaluation.

In 2008, the World Bank presented a methodology for evaluating the effectiveness of public management of investments, which allows assessing the efficiency of the processes and system of selection and implementation of projects, including infrastructure projects in the field of construction. The methodology included an

assessment of such key components of public investment management, namely:

- “1. Investment guidance, project development, and preliminary screening.
2. Formal project appraisal.
3. Independent review of appraisal.
4. Project selection and budgeting.
5. Project implementation.
6. Project adjustment.
7. Facility operation.
8. Basic completion review and evaluation”.

According to the developed methodology and at the request of the country, the World Bank provides technical support to the government to improve the PIM (public investment management) system. However, the demand for PIM diagnostics was mainly among high-income countries.

In 2015, the IMF proposed a methodology for assessing the PIM effectiveness with the goal of increasing the efficiency level of public investment in low-income countries that need to optimize the institutions of planning, distribution, and implementation of public investment. The IMF estimates that PIM performance in low-income countries is 40 % lower than in high-income countries. The IMF methodology includes 15 components of assessment of planning, distribution, implementation of PIM (Table 1).

Table 1. Evaluation of the PIM efficiency according to the methodology of the IMF and the World Bank

Planning sustainable levels of public investment	Eight PIM “must haves”
1. Fiscal principles or rules	1. Investment guidance, project development, and preliminary screening
2. National and sectoral planning	2. Formal project appraisal
3. Central-local coordination	3. Independent review of appraisal
4. Public-private partnerships	4. Project selection and budgeting
5. Regulation of infrastructure companies	5. Project implementation
Ensuring public investment is allocated to the right sectors and projects	6. Project adjustment
6. Multiyear budgeting	7. Facility operation
7. Comprehensiveness of budget	8. Basic completion evaluation and review
8. Unity of budget	
9. Appraisal of project	
10. Selection of project	

Implementing projects on budget and on time	
11. investment protection	
12. funding availability	
13. Budget execution transparency	
14. Project implementation management	
15. Public assets monitoring	

Source: The Independent Evaluation Group (2022g).

Currently, the IMF and the World Bank cooperate in providing technical support to countries in assessing the effectiveness of PIM. The recently published Public Investment Management Reference Guide provides practical knowledge on PIM performance assessment (Kim, Fallov & Groom 2020). The principal recommendations for countries regarding the PIM efficiency are as follows:

1. Legislative: creation and implementation of a single unified legal framework containing all cycle stages of the public investment management;
- 2 Institutional: creating and ensuring the activities of a special body (management) responsible for public investments (selection process, preliminary assessment of projects), clarifying the roles and interaction of subjects responsible for investment planning processes, budgeting processes;
3. Procedures and processes, namely: preparation, implementation, publication of public investment plans; implementation of the processes of selection, study, implementation of public investment projects, in particular according to the public-private partnership model; creation of professional management and supervision teams for the portfolio of projects (monitoring, control, stimulation); strengthening the project implementation management effectiveness and actual evaluation of investment projects in order to ensure an asset reliability.
4. Project management: defining and adopting capacity development plans for all project stakeholders in order to form the necessary management skills;

development, introduction and a strategy creation for using the information technologies for the purpose of mapping and interaction with modern and future project management investment programs, providing stakeholders with high performance programs and expanding user capabilities.

3. Methodology

In the course of the present research, a qualitative-quantitative methodology for assessing the effectiveness of strategic public investment management has been used. The assessment included the analysis of the key management indicators as follows:

1. Kaufman-Kraay governance indicators (including Government Effectiveness, the average of the Governance Indicators, and the Control of Corruption index) (Kaufmann, Kraay & Mastruzzi, 2010).
2. The World Bank’s Country Policy and Institutional Assessment (CPIA) index.
3. The World Bank’s Project Performance Ratings dataset (The Independent Evaluation Group (2022a-f).

Low-income countries were selected for analysis, namely: Benin, Central African Republic (CAR), and Nigeria, where international organizations are actively involved in order to provide technical support in public management of investments in various sectors of the economy.

The case method was used for a detailed analysis of problems in the public management of investment in the construction sector of Benin, CAR and Nigeria. In particular, reports on audits of project implementation in countries

containing specific data on the efficiency of public governance, namely: institutional, human, financial, have been analysed, which confirm the problems and difficulties of public governance in low-income countries.

4. Results

Benin is significantly ahead of CAR and Nigeria in terms of economic growth rates, especially in the period 1980–2000 with average annual GDP growth rates of 3,13 % for 1980–1990 and 4,94 % for 1990–2000 (table 2). At the same time, the level of life quality in Benin in terms of GDP per capita

is approximately close to the GDP per capita of the CAR and Nigeria in the period 1980–2000. In the period of 2000–2010, Nigeria begins to grow dynamically in terms of GDP growth rates (7,68 – the average growth rate each year in the period of 2000–2010) and GDP per capita (1 268,23 USD per year). In 2010–2021, the average GDP per capita in Nigeria amounted to 2 402,02 USD, twice exceeding the indicator of Benin. On the other hand, the CAR is characterized by low economic growth and low population well-being. Thus, there is a differentiation in the life quality level in the countries.

Table 2. Average annual GDP growth rates of Benin, CAR, and Nigeria for 1980-2021, % and USD

	1980–1990	1990–2000	2000–2010	2010–2021
GDP growth (annual %), an average indicator for ten years				
Benin	3,13	4,94	4,26	4,85
Central African Republic	0,93	1,29	2,71	-0,01
Nigeria	-0,93	2,31	7,68	3,20
GDP per capita (current USD), an average indicator for ten years				
Benin	377,08	383,62	797,49	1194,67
Central African Republic	372,37	364,66	341,43	464,88
Nigeria	448,21	445,61	1268,23	2402,02

Source: it has been calculated by the author based on World Bank data (2022 a; 2022 b).

According to the World Bank data, in 2020, the Republic of Benin had significantly higher policy and institutional capacity indicators compared to the CAR and Nigeria (table 3). Therefore, the quality assessment of economic management was 4,2 points, in particular, the quality assessment of monetary policy – 4,0, fiscal policy – 4,0, debt policy – 4,5.

In contrast, the same indicators for CAR and Nigeria were significantly lower, indicating a low level of economic governance. Along with this, other dimensions of policy and institutional development are similar for Benin and Nigeria (structural policies, social inclusion and equality policies, public sector governance and institutions).

Table 3. Country Policy and Institutional Assessment, 2020

Indicator	Benin	Central African Republic	Nigeria
Economic Management	4.2	3.0	3.3
Monetary and Exchange Rate Policy	4.0	3.5	3.0
Fiscal Policy	4.0	3.0	3.0
Debt Policy	4.5	2.5	4.0
Structural Policies	3.3	2.5	3.0
Trade	4.0	3.0	3.0
Financial Sector	2.5	2.5	2.5
Business Regulatory Environment	3.5	2.0	3.5

Policies for Social Inclusion and Equity	3.5	2.3	3.5
Gender Equality	3.5	2.5	3.0
Equity of Public Resource Use	3.5	2.0	3.5
Building Human Resources	4.0	2.5	3.5
Social Protection and Labour	3.0	2.0	4.0
Policies and Institutions for Environmental Sustainability	3.5	2.5	3.5
Public Sector Management and Institutions	3.4	2.4	2.8
Property Rights and Rule-Based Governance	3.5	2.0	2.5
Quality of Budgetary and Financial Management	3.5	2.5	3.0
Efficiency of Revenue Mobilization	3.5	2.5	3.0
Quality of Public Administration	3.0	2.5	2.5
Transparency, Accountability, and Corruption in the Public Sector	3.5	2.5	3.0
Overall CPIA Score	3.5	2.6	3.2

Source: World Bank (2022 c; 2022 d; 2022 e).

The assessment of public governance indicators efficiency for the period 1996–2020 indicates the absence of significant progress in all indicators (table 4). In all the countries outlined, weak government

accountability, political instability, government inefficiency, low quality of the regulatory environment, low level of legality, corruption control are noted.

Table 4. Government Effectiveness Indicator (Estimate of governance ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance)

	1996	1998	2000	2002	2004	2006	2008	2010	2020
Voice and Accountability									
BEN	0,259	0,426	0,413	0,051	0,053	0,363	0,345	0,314	-0,077
CAF	-0,828	-0,682	-0,671	-1,003	-1,309	-1,015	-0,988	-1,104	-1,273
NGA	-1,554	-1,081	-0,481	-0,634	-0,797	-0,623	-0,736	-0,777	-0,585
Political Stability									
BEN	1,049	0,741	0,798	0,820	0,265	0,547	0,375	0,261	-0,440
CAF	-1,210	-1,140	-1,121	-1,734	-1,425	-1,852	-1,842	-2,021	-2,178
NGA	-1,055	-0,586	-1,456	-1,625	-1,754	-2,034	-1,861	-2,211	-1,859
Government Effectiveness									
BEN	-0,381	-0,228	-0,234	-0,368	-0,356	-0,607	-0,462	-0,595	-0,264
CAF	-1,406	-1,252	-1,324	-1,539	-1,531	-1,504	-1,374	-1,388	-1,690
NGA	-0,924	-1,116	-0,964	-1,027	-0,939	-0,971	-0,977	-1,165	-1,029
Regulatory Quality									
BEN	-0,176	-0,134	-0,174	-0,403	-0,485	-0,428	-0,497	-0,334	-0,372
CAF	-0,891	-0,837	-0,863	-1,080	-1,205	-1,261	-1,206	-1,159	-1,537
NGA	-0,968	-0,952	-0,748	-1,216	-1,352	-0,907	-0,802	-0,727	-0,963
Rule of Law									
BEN	0,052	0,042	-0,157	-0,229	-0,510	-0,534	-0,534	-0,673	-0,728
CAF	-1,152	-1,175	-1,281	-1,047	-1,585	-1,538	-1,415	-1,294	-1,712
NGA	-1,290	-1,262	-1,099	-1,409	-1,407	-1,072	-1,039	-1,158	-0,812
Control of Corruption									
BEN	-0,548	-0,543	-0,474	-0,726	-0,465	-0,589	-0,503	-0,661	-0,039
CAF	-1,141	-1,006	-1,177	-1,091	-1,386	-1,211	-1,115	-0,930	-1,282
NGA	-1,189	-1,158	-1,219	-1,431	-1,342	-1,124	-0,892	-1,049	-1,097

Source: World Bank (2022 f).

Table 5 represents evaluations of World Bank projects conducted by the Independent Evaluation Group (IEG) for Benin, the Central African Republic, and Nigeria. The projects were implemented in the period of 1981–2018 according to the type of agreements (Agreement Type) IDA (International Development Association) or IBRD (International Bank for Reconstruction and Development), and according to the Lending Instrument Type: IPF (Investment Project Financing) or DPF (Development Policy Financing). From among the 13 projects, 6 were satisfactorily implemented (104,85 billion dollars), 3 were moderately satisfactorily

implemented (261,74 billion dollars), 1 was moderately unsatisfactorily implemented (5,2 million dollars), 3 were unsatisfactory realized (\$31.0 billion). In particular, in the Central African Republic, all projects led by the public sector have been satisfactorily implemented. In Benin, only one project was implemented satisfactorily, 2 – moderately satisfactory, 1 – moderately unsatisfactory, 1 – unsatisfactory. In Nigeria, 1 project was implemented satisfactorily, 2 – moderately satisfactorily, 2 – unsatisfactory. It should also be noted that the projects were implemented satisfactorily.

Table 5. Projects Effectiveness under Public Sector Governance in Benin, CAR, Nigeria during 1981–2018

No	Country Name	Approval FY	Exit FY	Net Commitment	Lending Instrument	IEG_EvalType*	IEG_Outcome
1	Benin	1985	1994	5,000,000	TAL	EVM	Unsatisfactory
2	Benin	1987	1998	15,000,000	SIM	ES	Satisfactory
3	Benin	1994	2000	5,200,000	TAL	ES	Moderately Unsatisfactory
4	Central African Republic	1981	1985	4,000,000	TAL	PCR	Satisfactory
5	Central African Republic	1985	1991	8,000,000	TAL	PCR	Satisfactory
6	Central African Republic	2014	2018	29,753,046.58	IPF	ES	Satisfactory
7	Nigeria	1985	1993	13,000,000	TAL	PCR	Unsatisfactory
8	Nigeria	1985	1993	13,000,000	TAL	PAR	Unsatisfactory
9	Benin	2001	2003	10,000,000	SAL	ES	Moderately Satisfactory
10	Benin	2005	2006	30,000,000	PRC	ES	Satisfactory
11	Nigeria	2005	2012	18,100,000	TAL	ES	Satisfactory
12	Nigeria	2005	2013	131,742,845.67	TAL	ES	Moderately Satisfactory
13	Nigeria	2010	2018	120,000,000	IPF	ES	Moderately Satisfactory

Source: *The Independent Evaluation Group (2022 a).*

*Type of IEG evaluation (Implementation Completion Report Review (ICRR), Project Performance Assessment Report (PPAR), and Project Completion Report (PCR)).

The efficiency components of the investment projects management under the leadership of the public sector include the efficiency of as follows: quality of

management at the entrance, supervision, bank activity, quality of monitoring and evaluation.

Table 6. Performance components of public sector-led investment project management in Benin, CAR, and Nigeria, 1981–2018

Country Name	IEG Bank Quality Agency	IEG Bank Quality of Supervision	IEG Overall Bank Perf	IEG Borr Prep	IEG Implementing Agency Perf	IEG Government Perf	IEG Overall Borr Perf	IEG ICR Quality	IEG Sustainability	IEG ME (monitoring and evaluation) Quality
Benin	Unsatisfactory	Unsatisfactory	Not rated	Unsatisfactory	Unsatisfactory	Unsatisfactory	Not rated	Not rated	Unlikely	
Benin	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Satisfactory	Uncertain	–
Benin	Unsatisfactory	Satisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Not rated	Unsatisfactory	Satisfactory	Non-evaluable	
Central African Republic	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Likely	–
Central African Republic	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated	Likely	–
Central African Republic	Satisfactory	Satisfactory	Satisfactory	–	–	–	–	High	–	Substantial
Nigeria	Not rated	Satisfactory	Not rated	Unsatisfactory	Unsatisfactory	Unsatisfactory	Not rated	Satisfactory	Uncertain	
Nigeria	Highly Unsatisfactory	Satisfactory	Not rated	Unsatisfactory	Unsatisfactory	Unsatisfactory	Not rated	Not rated	Likely	
Benin	Satisfactory	Satisfactory	Satisfactory	–	Satisfactory	Satisfactory	Satisfactory	Exemplary	Likely	–
Benin	Satisfactory	Satisfactory	Satisfactory	–	Satisfactory	Satisfactory	Satisfactory	Satisfactory	–	Modest
Nigeria	Moderate Satisfactory	Satisfactory	Satisfactory	–	Moderate Satisfactory	Moderate Satisfactory	Moderate Satisfactory	Satisfactory	–	Substantial
Nigeria	Moderate Satisfactory	Satisfactory	Moderate Satisfactory	–	Moderate Satisfactory	Moderate Satisfactory	Moderate Satisfactory	Satisfactory	–	Modest
Nigeria	Moderate Satisfactory	Moderate Satisfactory	Moderate Satisfactory	–	–	–	–	Substantial	–	Modest

Source: The Independent Evaluation Group (2022 a).

According to the IEG report on the Partnership Strategy implementation with the Republic of Benin in 2013–2017, there has been little or no progress in the investment budget implementation in the country. The basic level of implementation of the investment budget was 66,3 % in 2016; the target indicator was set at the level of 72 % by 2018. According to the data of the IEG report, significant progress was noted in the management of public finances, in particular, the improvement of budget execution. However, there are no reported data on the level of budget execution. The implementation rate was 89,2 % as of the end of June 2017; however, it cannot be verified only by the reports on the implementation of projects involving the Government of Benin (The Independent Evaluation Group, 2022 c).

Therefore, the implementation results of two projects in Benin provide evidence of management difficulties. The projects were aimed at:

- 1) planning of institutions, methods and procedures for the planning, construction and maintenance of the country's rural road network;
- 2) training of local personnel for managing in conditions of increased volume of work due to road construction.

As a result of the implementation of the first project in Benin, the Feeder Roads Division (SRDR) was established under the guidance of the Ministry of Public Works, the purpose of which is to combine different forms of labour and capital in order to determine the most efficient construction methods within the country.

IEG Rating Summary

The chart provides the summary based on Bank Performance rating from the latest performance ratings done by the Independent Evaluation Group (IEG). The colors in the chart depicts the count of projects b...

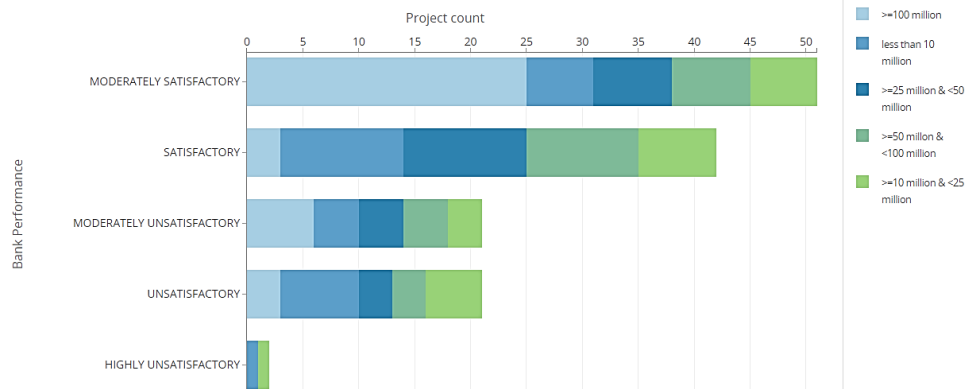


Figure 1. IEG Rating Summary: Benin, CAR, Nigeria projects
 Source: The Independent Evaluation Group (2022 b).

As a result of the second project, institutional development was ensured to improve the construction of roads in the country, strengthening the infrastructure capacity for the inflow of investments into the country. The main difficulties included as follows: a lower level of staff productivity than planned; delays in the supply of equipment; low level of equipment availability; lack of local staff and cumbersome administrative procedures. In the framework of the second project, institutional productivity slightly improved, but labour shortages led to greater use of mechanical equipment. Both projects provided positive effects as follows: the combined economic rate of return was 30 %, while the planned was 27 % – for the first project and 19 % – for the second project. At the same time, not enough attention was paid to the processes of technical maintenance, training of management personnel, planning and monitoring of the project (The Independent Evaluation Group, 2022 d).

The project implementation in Benin on the port infrastructure development with the World Bank support also confirms the presence of management problems, namely: cumbersome government procedures, late financing and payments due to delays in submitting claims. Despite

these obstacles, the economic re-evaluation showed satisfactory results: the overall rate of return for the project was 25 %, and it was in line with the previous assessment of the rate of return. However, the financial results are unsatisfactory: the actual return on net revalued assets in 1982 was 2,4 % against a forecast of 8 %. From among the important positive effects on the project implementation, managerial and operational improvements should be mentioned that were financed during the project, which ensured the growth of the productivity of the port thanks to the development of human resources, as well as improved management (The Independent Evaluation Group, 2022 e).

The experience of the Central African Republic in the construction of roads within the framework of four supported projects shows the institutional capacity lack towards ensuring the projects implementation effectiveness. The lack of institutional development is connected with the lack of local qualified personnel, ineffective management of learning processes, which causes a constant need for large-scale technical assistance from developed governments. However, the inability of the government to effectively finance development budgets and road construction remains to be the problem of

the Central African Republic (The Independent Evaluation Group, 2022 f).

5. Discussion

In the course of the research, positive and negative public investment management effects in the construction sector of low-income countries have been revealed. The negative public investment management effects are connected with an insufficient level of public policy efficiency and institutional capacity, in particular, insufficiently effective economic management, structural policy, policy of social inclusion and equality, management of the public sector and institutions. In general, in low-income countries, the lack of significant progress in all public governance performance indicators for the period 1996–2020 was observed. In all the countries outlined, weak government accountability, political instability, government inefficiency, low quality regulatory environment, low level of legality, and corruption control are noted. The specified determinants of public governance have a negative impact on the ability to effectively manage investment in the implementation of state projects in the field of construction with the involvement of international organizations in developed countries. The analysis of the efficiency components of the investment projects managing under the leadership of the public sector reveals gaps in the supervision, quality of monitoring and evaluation during the implementation of projects. Such gaps are due to the low-income countries characteristics as follows:

- 1) little or no progress in implementing the investment budget,
- 2) management difficulties connected with the low level of productivity of public sector personnel, shortage of personnel and the need for their training;
- 3) cumbersome administrative government procedures;

- 4) lack of planning of project maintenance processes, management training planning;
- 5) insufficient attention to the processes of project planning and monitoring;
- 6) the lack of institutional capacity to ensure the effectiveness of project implementation.

Similar conclusions are contained in other scientific studies (Grigoli & Mills, 2014), which note, in particular, “the inverse relationship between the level of public investment” and institutional capacity (bureaucracy, law and order), the quality of management and the instability of public investment, institutional quality and the infrastructure quality. Thus, the government should guarantee a higher quality of investment management in order to ensure investments in various sectors of the economy (Grigoli & Mills, 2014). Governments of low-income countries should also create specialized processes and mechanisms for managing public investments that take into account the features of national budgeting processes and financial management systems. With this aim in view, ministries of finance and planning authorities should be key agencies that contribute to the effective public management of investment projects (Frank, 2013).

Brumby, Kaiser & Kim (2013) also note in their scientific work the public investment inefficiency in developing countries due to the governments inability to create value for money assets, lack of leadership and practical skills of staff. The authors suggest implementing programs to improve the public investments management, especially in the case of public-private partnerships (PPP). Such programs should take into account overall fiscal management and control, efficiency in resource allocation, and technical efficiency (Brumby, Kaiser & Kim, 2013).

Institutional failure to ensure the public investment management efficiency is also discussed in the investigation of Cerniglia & Rossi (2020). Institutions limit the efficiency of public investment along with other factors (barriers in converting allocated financial resources to ensure construction, regulatory framework, excessive bureaucracy (Cerniglia & Rossi, 2020).

Shiferaw & Klakegg (2012) also note that in the context of the weakness of investment management in African countries, it is worth developing project management systems in investment recipient countries, taking into account the interests of all interested parties. In particular, it is worth considering the government structure, which determines the public governance effectiveness: lack of knowledge and experience; lack of reliable factual information, concepts and measurement methods in data collection; strong pressure from decision-makers to make immediate decisions that generally affect the implementation of project management and its effectiveness (Shiferaw & Klakegg, 2012).

6. Conclusion

In the course of the research, positive and negative public investment management effects in the construction sector of low-income countries have been revealed. The negative public investment management effects are connected with an insufficient level of public policy efficiency and

institutional capacity. In general, the significant progress lack in all indicators of the efficiency of public governance for the period 1996–2020 was noted in low-income countries. The specified determinants of public governance have a negative impact on the ability to effectively manage investment in the implementation of state projects in the field of construction with the involvement of international organizations in developed countries. The analysis of the efficiency components of managing the investment projects under the leadership of the public sector reveals gaps in the supervision, quality of monitoring and evaluation during the implementation of projects. Such gaps are due to the low-income countries characteristics as follows:

- 1) little or no progress in implementing the investment budget,
- 2) management difficulties connected with the low level of productivity of public sector personnel, shortage of personnel and the need for their training;
- 3) cumbersome administrative government procedures;
- 4) lack of planning of project maintenance processes, management training planning;
- 5) insufficient attention to the processes of project planning and monitoring;
- 6) the lack of institutional capacity to ensure the project implementation effectiveness.

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