

# THE INFLUENCE OF IMPLEMENTERS AND DEVELOPING COUNTRIES ON RESULTS OF CZECH DEVELOPMENT AGENCY PROJECTS

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## Abstract

This article deals with the topic of international development projects funded by the Czech Development Agency (CDA) and their internal project success (time and budget management and achieving project goals). Projects are implemented in various developing countries by implementers from private, public and non-profit sectors, as well as by international organizations or by a combination of those. The main aim of this paper is to find out if the individual groups of implementers achieve different results, and consequently to evaluate if the project results depend rather on the type of implementer or on the receiving country. Methodologically, the paper is inspired by the research performed by Ahsan and Gunawan (2010) on the projects funded by the Asian Development Bank, analysed data is then obtained directly from the Czech Development Agency and we therefore believe this might be the first research of this type on the official Czech development aid as it analysis non-public data. The main finding based on Kruskal-Wallis test is that the project results, concerning budget management, are influenced by the implementing agency and at the same time that the best results are achieved by private companies that run a larger number of smaller projects. On the other hand, schedule depends on the receiving developing country.

**Key words:** Czech Development Agency, development aid, development projects

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## Introduction

Based on existing literature (Ika et al., 2012), the international development projects are generally underperforming: 39% of World Bank's projects in Africa failed till 2010, and in the previous decade, the Group finished unsuccessfully even over 50 % of its projects. Therefore, donors have increased their focus on measuring the effectiveness and impacts of their projects (Julian, 2016).

The main aim of this paper is to evaluate how the implementers and receiving country influence the project results of Czech Development Agency (CDA).

The paper is divided into three sections, the first one comments on the data collection, their quality and limitations, the following part is focused on details of used methodology. The results of analysis are presented in the third section which is consequently divided into two subchapters, one aimed at data analysis on the basis of implementer, the second one on the basis of receiving country. First of all, the data analysis by deviations is presented, consequently the influence on budgeting and schedule keeping through Kruskal-Wallis test is evaluated. The last part of the paper covers the final summary.

We believe that a similar research concerning the official Czech development aid does not exist at all as we process unpublic data which were provided us ad-hoc on the basis of law no. 106/1999 about the Freedom of Information Legislation. The data was not available in an aggregate form before.

## 1. Data collection

Data needed for the analysis are not publicly accessible. Firstly, we contacted the Ministry of Foreign Affairs and consequently the Czech Development Agency with a request on the basis of the Freedom of Information Legislation to provide us with the following data:

- originally approved budget of individual projects of CDA development aid finished in last three years
- final budget of individual projects of CDA development aid finished in last three years (to compare whether projects are finished within the budget)
- originally planned duration of individual projects of CDA development aid finished in last three years
- final duration period of individual projects of CDA development aid finished in last three years (to compare whether projects are finished in time)
- information if the planned goals of individual CDA projects were reached
- information on implementers (this fact is anonymous in the paper; however, it is needed to divide implementers into groups of non-profit organizations, private sector or state institutions).

Data was provided to us in the form of 12 Excel documents: four were focused on CDA foreign projects, four sheets aimed at trilateral cooperation and the rest of the data on domestic projects. Files on bilateral foreign CDA projects contained altogether 575 records for years

2016,2017,2018 and 2019 – as the final accounts and evaluation are processed annually, we were provided with files according to individual years, which means that a project running in all the above mentioned years is mentioned four times in the data document, each time for the current information in a certain year. We would like to point out that we were not provided the information whether the goal was achieved or not.

## **2. Methodology**

Concerning methodology, the paper is based on the article by Ahsana and Gunawana (2010) devoted to projects of the Asian Development Bank (ADB) and monitoring the success of these projects depending on receiving country through deviations. On the basis of Czech development aid, it is extended by dependence on the implementer's category.

The research questions of the paper are as follows: Is the project's success concerning budget keeping of CDA projects influenced by implementer category or by receiving country? Is the project's success concerning schedule keeping of CDA projects influenced by implementer category or receiving country? Do private companies achieve better results than other categories of implementers?

Both variables (implementer, receiving country) were analysed by the same tests and data analysis similarly to the research of Ahsan and Gunawana (2015). Firstly, the analysis of mean values and deviations is presented, which is consequently broadened by nonparametric Kruskal-Wallis test. All the data is processed in SPSS program.

## **3. Data analysis**

### **3.1. Influence of implementers**

The highest contracted budgets were in projects implemented by the non-profit sector. The surprising finding is that although private companies implemented the majority of CDA projects, their planned budgets were on the average almost one third lower compared to non-profit sector. The smallest projects from the budget point of view were performed by state institutions. None of implementer's groups did not exceed the planned budget.

In this context, the comparison of planned and real paid budgets on the basis of category of implementers offers quite interesting findings: projects of private companies cost in average by 452,705 CZK less than it was originally planned. Non-profit sector saved in average - compared to the original budget - only 98,955 CZK and state institutions only 34,298 CZK. Therefore, we propose that it is much better to implement smaller projects and make use of private companies.

Not knowing the comments on budget keeping on our data, we can just estimate reasons for these outcomes. The further information can be seen in Table 1 showed below.

**Table 1: Budget and schedule of projects according to the implementers**

Implementer		Paid in the given year (CZK)	Contracted budget for the given year (CZK)	Number of years - planned	Number of years - reality
Non-profit sector	Mean	3 141 972.65	3 240 898.50	2.82	2.95
	Std. Deviation	2 364 694.188	2 475 230.431	1.156	1.400
State institution	Mean	1 575 435.34	1 609 734.00	2.93	3.10
	Std. Deviation	1 720 275.461	1 698 179.056	1.465	1.772
International agency	Mean	2 815 044.41	2 872 999.60	4.00	4.00
	Std. Deviation	1 738 763.689	1 778 231.665	.707	.707
Private sector	Mean	1 785 998.63	2 238 704.11	2.07	2.18
	Std. Deviation	3 487 657.472	4 038 542.195	1.312	1.492
Combination	Mean	6 022 391.50	7 658 664.83	2.50	2.50
	Std. Deviation	4 151 211.484	6 368 598.633	.837	.837
Total	Mean	2 209 961.59	2 448 888.46	2.55	2.69
	Std. Deviation	2 858 236.609	3 202 443.112	1.363	1.590

The influence of implementer was analysed as well by Kruskal-Wallis test. The implementers from categories “international agency” and “combination” were grouped into one category called “others”.

**Table 2: Kruskal-Wallis test: the influence of implementer on budget keeping**

Implementer	N	Mean Rank	
Difference - budget	Non-profit sector	181	315.35
	State institutions	153	315.78
	Others	11	235.45
	Private company	230	250.50
	Total	575	

	Diference – budget
Chi-square	30.264
df	3
Asymp. Sig.	.000
Kruskal Wallis Test	
Grouping Variable: implementer	

Kruskal-Wallis results confirmed the findings mentioned above and they show that there are differences between individual implementers, and moreover, that these differences are statistically significant on 5% level of significance. That is why we reject the hypothesis on the same distribution. The category of implementer therefore influences the results of CDA projects concerning budget keeping.

This confirms the findings of the existing literature (Simovic, 2015, Shin et al., 2017) that shows that implementing organisations from private for-profit sector achieve better results than other institutions as they are more result-oriented and, thanks to their less-bureaucratic decision making, they are able to react quicker to changing conditions (Simovic, 2015). Also, the

application of project management (PM) methodologies can play a role: the use of some PM tools can lead to better results of international development projects (Matos et al., 2019, Montes-Guerra et al., 2015, Golini et al., 2015), however, the PM methodologies are generally not widely applied among NGOs: as an example, only 18% of Polish project managers from NGOs (Czahajda, 2019) apply any project methodology, with the number being slightly higher in Lithuania where 58% of project managers use them (Keleckaite and Meiliene, 2015).

We also examined if implementers finish their projects on time. The analysis of time management is influenced by two factors. Firstly, the data on project duration provided by the CDA are stated in whole years, which means, that if the project was finished earlier during that year, this fact is not reflected in analysis. Secondly, prolonging of project for a few weeks leads to prolonging of one year in case of overlap to the following year.

For these reasons, the majority of categories of implementers, excluding international agencies and combination of implementers, ran their projects late. The most prolonged projects are performed by state institutions (by 0,17 years) and non-profit organizations (by 0,13 years). Private sector prolonged its projects only about 0,11 years. Detailed information is stated in Table 1 above.

The reasons for project prolonging can be various. The CDA mentioned in the commentary section that the reasons were most likely objective causes (bad security situation, natural disasters, inefficient cooperation of local authorities or partners and so on). One of the reason may be the fact that the project was evaluated as a very beneficial one, so the CDA decided to support its financing in following years beyond the planned time interval and budget.

The schedule keeping was analysed in a very similar way as the budget keeping, by Kruskal-Wallis test with four categories of implementers. The results are presented in Table 2 below.

**Table 2: Kruskal-Wallis test: the influence of implementer on schedule keeping**

Implementer	N	Mean Rank	
Difference - time	Non-profit sector	181	285.46
	State institution	153	303.37
	Other	11	258.50
	Private company	230	281.18
	Total	575	

Difference – time	
Chi-square	7.104
df	3
Asymp. Sig.	.069
Kruskal Wallis Test	
Grouping Variable: implementer	

According to the Kruskal-Wallis test, the significance is higher than 0,05 that is why we do not reject the zero hypothesis about the same distribution on 5% level of significance. Based on this test, we can state that the category of implementer does not have any major influence on time schedule of individual projects.

### 3.2. The influence of developing country

The majority of projects between 2016 and 2019 were ran in Bosnia and Herzegovina (21,7 %), in Moldavia (20,9 %) and Georgia (19,7 %). On the contrary, the minimal amount of projects were conducted in Palestine and Afghanistan and their share did not even exceed one per cent. The most prominent real savings on a project compared to planned costs were achieved in Moldavia and Cambodia. On the other hand, the lowest savings were generated by Ukrainian and Serbian projects. The further information on this issue can be found in the Table 3 below.

**Table 3: Budget and schedule according to the developing**

Developing country		Paid budget for a given year (CZK)	Contracted budget for a given year (CZK)	Number of years - planned	Number of years - reality
Czech Republic	Mean	1 000 000.00	1 000 000.00	1.00	1.00
	Std. Deviation	.	.	.	.
Ethiopia	Mean	3 429 642.62	3 663 717.53	3.26	3.40
	Std. Deviation	2 804 714.768	3 204 332.110	1.400	1.606
Mongolia	Mean	3 317 746.46	3 423 468.92	2.56	2.61
	Std. Deviation	3 856 180.300	4 016 656.311	1.688	1.754
Zambia	Mean	2 637 022.50	2 707 042.73	3.08	3.67
	Std. Deviation	2 388 430.026	2 325 299.077	1.283	1.786
Bosnia and Herzegovina	Mean	1 965 846.29	2 210 607.42	2.29	2.38
	Std. Deviation	3 390 308.033	3 568 457.290	1.224	1.396
Georgia	Mean	1 434 642.15	1 530 405.00	2.31	2.47
	Std. Deviation	1 766 105.134	2 052 006.362	1.225	1.530
Cambodia	Mean	2 194 638.07	2 536 115.64	2.18	2.18
	Std. Deviation	2 266 151.877	2 400 778.689	.945	.945
Moldavia	Mean	2 256 059.37	2 766 967.97	2.93	3.08
	Std. Deviation	3 247 337.554	4 010 805.618	1.554	1.822
Ukraine	Mean	958 990.17	990 860.36	1.65	1.65
	Std. Deviation	1 017 294.839	997 084.689	.774	.812
Serbia	Mean	2 369 782.67	2 402 562.48	1.60	1.60
	Std. Deviation	2 589 118.236	2 567 460.542	.699	.699
Kosovo	Mean	2 646 930.07	2 767 501.50	2.64	2.71
	Std. Deviation	1 400 336.999	1 662 641.174	.745	.914
Afghanistan	Mean	5 996 741.00	5 996 741.00	2.83	2.83
	Std. Deviation	2 826 679.398	2 826 679.398	.983	.983
Palestine	Mean	2 461 128.15	2 500 000.00	2.00	2.00
	Std. Deviation	1 777 388.862	1 732 050.808	1.155	1.155
Total	Mean	2 209 961.59	2 448 888.46	2.55	2.69
	Std. Deviation	2 858 236.609	3 202 443.112	1.363	1.590
	N	575	575		

Similarly to the analysis of implementers, the CDA did not state any further comments on budget keeping. Ahsan and Gunawan (2010) suggest that reasons for savings on Asian development projects can be: currency depreciation, purchase savings, change of design or project extent as well as the change of interest rate or taxes in the receiving country.

Consequently, Kruskal-Wallis test, grouping countries into three groups of Asia, Africa and Europe, was done.

**Tab. 4: Kruskal-Wallis test: influence of developing country on budget**

Implementer		N	Mean Rank
Difference - budget	Africa	102	293.35
	Asia	169	295.88
	Europe	304	281.82
	Total	575	293.35

	Budget keeping
Chi-square	1.247
df	2
Asymp. Sig.	.536
Kruskal Wallis Test	
Grouping Variable: region	

According to Kruskal-Wallis test, there is higher than 0,05 significance at 5% level of significance, that is why we do not reject the zero hypothesis about sameness distribution. This test shows that the category of region does not have influence on budget keeping.

Similarly to the analysis of implementers, the analysis of schedule keeping was done. Unfortunately, it is not possible to determine if projects were finished before deadline. However, it can be stated that projects in six countries (Cambodia, Ukraine, Serbia, Afghanistan, Czech Republic and Palestine) were finished on time. The longest delay was registered in Zambia (0,59 years) and Ethiopia (0,14 years). All this information is presented in Table 3 above.

Kruskal-Wallis test has the following results:

**Table 5: Kruskal-Wallis test: influence of developing country on schedule keeping**

Implementer		N	Mean Rank
Difference - schedule	Africa	102	309.16
	Asia	169	282.29
	Europe	304	284.07
	Total	575	309.16

	Schedule keeping
Chi-square	6.892
Df	2
Asymp. Sig.	.032
Kruskal Wallis Test	
Grouping Variable: region	

According to Kruskal-Wallis test, the significance is lower than 0,05 at 5% level of significance, for this reason we reject the zero hypothesis on the same distribution. This test shows that region category has an influence on schedule keeping.

## Conclusion

This paper analysed the official development aid of the Czech Republic and development projects implemented in cooperation with the Czech development agency in dependence of two variables, specifically the implementing agency and the developing country.

Generally, it can be stated that projects were finished within the budget, however, usually with a delay. These findings correspond to the results of project analysis of Asian Development Bank (Ahsan and Gunawan, 2010).

The best results were achieved by private companies implementing more projects of smaller sizes. This group of implementers can reduce the project costs (however it is not possible to determine the reasons) as well as finish projects with the minimum delay. Then non-profit organizations follow, they implement smaller amount of projects of larger sizes. Although the budget on average does not exceed the planned one, their savings were only about one fifth compared to private sector, and the project delay was very similar to the one of private sector. State institutions ranked the worst in this comparison. They implement small projects; however, they used all the planned budget and they conducted projects with the longest delay. The results of Kruskal-Wallis test confirm that the category of implementer influences the budget management, while it does not influence schedule keeping at 5% level of significance.

Regarding individual developing countries, the similar obvious comparison is very difficult, not only because of their high quantity. Cambodia ranked the best in the analysis, where the highest difference between planned and real budget is achieved and where the projects were finished on time. The similar situation was for projects in Afghanistan, where all the budget was used and the project was finished on time according to the planned schedule. According to Kruskal-Wallis test the category of region does not influence budget management, however effects time management.

It is not possible to find out from the provided data, if the set objectives were achieved or not. The research discussed above was aimed only at two variables having influence on the project results. And it was implementer and receiving development country, however, these outcomes can be dependent on a large variety of other factors, including project size, sector of implementation or type of financing (subventions, public tenders and so on). The following research will be aimed at these variables.

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