# THE EFFECTIVENESS OF MILLENNIUM CHALLENGE CORPORATION GRANTS IN ACCELERATING ECONOMIC GROWTH

Sri Lanka Journal of
Economic Research
Volume 10(2) February 2023
SLJER 10.02.05: pp. 97-113
Sri Lanka Forum of
University Economists
DOI:http://doi.org/10.4038/sljer.v10i2.185

***T Lalithasiri Gunaruwan***

***G K D Indeewari***

***Abstract***

The Millennium Challenge Corporation (MCC) is a United States' agency, with a novel structure that provides international development assistance. It operates with the stated objective of assisting the grant-recipient countries in their attempts to accelerate economic growth through poverty reduction, particularly by identifying and removing the binding constraints to growth. There is much debate over how the MCC programme is effective in realising its growth-supporting objective. A few studies have been conducted to examine this aspect. The present study, another attempt to shed light on the comparative growth performance in the MCC grant recipient economies, did not enable the inference that the MCC grant has successfully accelerated the growth impetus in recipient nations. This suggestive inference, however, has to be reconfirmed through future research, that could possibly include any other variables which might be considered as influential, and also capture the long-term growth effects which may not have been reflected through macroeconomic data thus far.

***JEL:*** *F43, F50; F63, H81, O11, O19*

***Keywords****: MCC grant; International development assistance; Capital formation; Per capita GDP growth; Inter-country comparison*

***T L Gunaruwan***
*Department of Economics, Faculty of Arts,*
*University of Colombo, Sri Lanka.*
*Email: tlgun@econ.cmb.ac.lk Tel: +94 77 228 2808*
*https://orcid.org/0000-0003-0972-9554*

***G K D Indeewari (Corresponding Author)***
*Department of Economics, Faculty of Humanities and Social Sciences,*
*University of Sri Jayewardenepura, Sri Lanka.*
*Email: gkd.indeewari@gmail.com Tel: +94 77 5051793*
*https://orcid.org/0000-0002-5565-6854*

## INTRODUCTION

The Millennium Challenge Corporation (MCC) is a United States' agency that provides international development assistance. It adopts a novel structure compared to the United States Agency for International Development (USAID). The MCC operates with the stated objective of assisting the grant-recipient countries in accelerating economic growth through poverty reduction, particularly by identifying and removing the "binding constraints to growth" (Millennium Challenge Corporation, 2022).

The selection of recipient countries for the programme is based on a set of qualifying criteria, among which the countries are low-income countries (LICs) or lower-middle-income countries (LMICs). The MCC programme, established through the Millennium Challenge Act of 2003, "operates two types of assistance programs: a long-term, large-scale investment in a country-implemented set of projects, known as a *Compact*, and a short-term, more narrowly defined effort to help prepare possible candidates for Compact eligibility, termed a *Threshold Program*" (Brown, 2019). By the end of June 2022, the MCC had granted 39 Compacts worth a total of USD 13.64 billion in 29 countries and 30 Threshold Programmes worth a total of USD 0.71 billion in 28 countries (perceived based on Millennium Challenge Corporation, 2022). On December 13, 2016, the MCC Board of Directors selected Sri Lanka for a Compact – a five-year grant, and the Board approved the Compact on April 25, 2019. The stated objective of the Compact was reducing poverty through economic growth. It was expected to reduce traffic congestion and air pollution in Colombo, improve public transportation, upgrade provincial roads, and provide secure land titles to landholders (Millennium Challenge Corporation, 2022).

However, the Compact became a critical political issue in Sri Lanka in the same year the presidential election was to be held. Objections were raised against the then Government's decision to proceed with the proposed Compact, leading political authorities to pledge that the Compact would not be signed before the impending presidential election. The subject was among the most contagious topics debated during the run-up to the election. Upon the assumption of duties of the newly elected President of Sri Lanka in November 2019, the Cabinet of Ministers of the new Government decided to appoint a Committee of Experts to review the proposed MCC's Compact. After a six-month study, the Committee did not recommend signing the Compact in the way the agreement was standing. Eventually, on December 15, 2020, the MCC Board discontinued the proposed LKR 89 billion (USD 480 million) grant citing a lack of Sri Lanka's engagement. The public opposition in Sri Lanka towards obtaining the MCC grant was enormous because it would undermine the country's sovereignty. There was also wide criticism that the MCC grants had not been effective in reaching its stated objective of assisting the grant recipient countries in accelerating economic growth. The latter claim became the seed for the present study, precisely an attempt to analyse whether the MCC grants had effectively stimulated growth in recipient countries, as reflected in the macroeconomic statistics.

## LITERATURE REVIEW

### The Effectiveness of Foreign Aid on Economic Growth

Several studies have been conducted on the effectiveness of foreign aid on economic growth. Some have found a positive influence, while others have suggested that the quality of policies adopted would significantly influence aid effectiveness. Arndt et al. (2010), for instance, having studied this aspect, concluded that "aid has a positive and statistically significant causal effect on growth over the long run" (abstract). On the other hand, Burnside and Dollar (2000) found that the effectiveness of aid would be influenced by the quality of policies adopted. They claimed that "[a]id has a positive impact on growth in developing countries with good fiscal, monetary, and trade policies but has little effect in the presence of poor policies. Good policies are ones that are themselves important for growth" (p. 847). Burnside and Dollar explored a new research direction, namely aid-policy-growth association, and as pointed out by Dunusinghe (2021), it seemed to have impacted mainly on the "formulation of the MCC scheme" (p. 304).

Jia and Williamson (2019) revisited this association, and their results reversed Burnside and Dollar's original findings. Their "Post-Cold War (1990–2013) analysis…[revealed] that aid can decrease growth at any level of policy" (ibid, p. 577). On the contrary, Mekasha and Tarp (2019) reported positive evidence that aid would impact growth.

Hansen and Tarp (2000) went further, showing that aid could increase the growth rate and that it would not be conditional on a 'good' policy. They also projected that the estimated effectiveness of aid is highly sensitive to the choice of the estimator and the set of control variables. According to them, "[w]hen investment and human capital are controlled for, no positive effect of aid is found. Yet, aid continues to impact on growth via investment" (ibid, p. 1).

Rajan and Subramanian (2008) did not find substantial evidence of a positive relationship between aid inflows into a country and its economic growth, even after "correcting for the possible bias that poorer growth may draw aid contributions to recipient countries" (p. 1). They also found no evidence that aid works better in better policy or geographical environments (ibid, p. 1). Gisselquist and Tarp (2019) stated that domestic ownership of foreign aid programmes is set out as a fundamental principle for aid effectiveness in the Paris Declaration, Accra Agenda for Action, and Busan Partnership (p. 2).

However, despite widespread agreement among donor and recipient countries on this issue, aid often tends to bypass national institutional structures (Chasukwa and Banik, 2019, p. 103). On the other hand, aid effectiveness could also be influenced by donor motivation (Dunusinghe, 2021, p. 305). As indicated above, aid's direct and indirect impact on growth and other factors that could influence aid effectiveness has been widely investigated in the literature. However, the debate on aid effectiveness persists.

**The MCC Programme's Effectiveness in Realising its Stated Objective**

Brown (2019) claimed that the MCC provides foreign assistance that differs in several aspects from U.S. aid through other agencies (summary). Unlike the United States Agency for International Development (USAID) program design, which is typically led by mission staff, in the MCC, the partner country government usually houses the team that analyses the constraints that hinder the country's growth most severely. Brown (2019) further explained that governments also "often designate a ministry or senior official to coordinate compact development" (p. 9). In principle, this mechanism resorted to by the MCC should have addressed the aspect of "ownership by the recipient nation" of the purposes for which aid is utilised and should have supported aid effectiveness. However, there is much debate over the MCC programme's effectiveness in realising its growth-supporting objective.

In his descriptive analysis, Dunusinghe (2021) demonstrated that the MCC recipient countries performed better in economic growth and development. Nevertheless, according to his Difference-in-Difference-in-Difference (DDD) estimate, such growth and development differentials are not statistically significant indicating the absence of evidence to conclude that the MCC grants have been effective in promoting growth and development in recipient countries (ibid, p. 312).

In their evaluation of the experiences of other recipient countries of the MCC grants, the Committee to Review the Proposed Millennium Challenge Corporation (2020) pointed out that a previous study analysing the growth rates of the grant recipient countries five years before and after receiving the grant, has found out that most of the countries had not been able to realise the stated objectives of the MCC.

It further highlighted that only 07 out of the 65 agreements signed, namely, with Ghana (first agreement), Guyana, Indonesia (first agreement), Lesotho, Malawi, Paraguay, and Zambia, had been able to yield at least 1 per cent higher growth rate than the average growth rate that prevailed during the five years preceding the receipt of the grant. Even if countries that achieved a growth rate of at least 0.5 per cent higher were considered, only Madagascar, Moldova (second agreement), Niger and the Philippines could be added to the previous list.

**The MCC Programme's Micro Level Achievements**

Ospina and Block (2017) analysed projected Economic Rate of Returns (ERRs) for Compacts that have closed ("closeout ERRs"). They examined published closeout ERRs for 86 projects on the MCC's external website (ibid, p. 3).

Their key takeaways, as they have summarised, are as follows, which indicate that the MCC-funded projects have promoted growth (p. 2):

(i) Closeout ERRs have been produced for the majority of projects (63%) and MCC funds (66%),

(ii) Closeout ERRs are, on average, above MCC's 10 per cent threshold (13.2%),
(iii) More than one-third of closed projects have closeout ERRs below the MCC threshold,
(iv) Roughly three-fourths of projects exhibit ERRs that decrease from the time the impact Enters into Force (EIF) to close.

Several studies have been conducted to evaluate the impact of MCC investments on farmer training. Blair et al. (2012) portrayed that, in El-Salvador, the average annual productive income of the treatment group of producers after the MCC investment was USD 1,849 higher than the control group of producers.

According to ISSER (2012), the impact was potentially positive in Ghana. Carter et al. (2012), having studied the impact of the MCC's rural business services programme designed to boost the income of the small farm sector, argued that "impacts of a program of this sort are unlikely to be fully revealed by standard binary treatment estimators" (abstract). They opined that the temporal pattern of impact indeed would evolve in important ways over time and found that the income in the activities targeted by the program steadily rose. Conversely, on average, it was found that there had been no significant impact on household living standards (ibid, abstract).

Fortson et al. (2012) studied the MCC's Compact with Armenia, a five-year agreement signed in 2006 to increase household income in rural Armenia through improved performance of the country's agricultural sector. They concluded that the Compact had no significant impact on household income. NORC (2013), having evaluated the impact of the Farmer Training and Development Assistance (FTDA) project funded by the MCC in Honduras over the period 2007-2010, pointed out that the FTDA activity has had a positive impact on its primary area of focus, namely, activities related to horticultural crops.

However, a broader positive impact on household income and expenditures has not been detected (p. vi). Also, Millennium Challenge Corporation (2012) portrayed that the impact on income could not be effectively measured in the horticulture activity in El Salvador as appropriate treatment and control groups were not maintained. As highlighted by Sturdy et al. (2014), sufficient exposure to treatment, based on a well-conceived programme logic, would be required for the evaluation to measure changes in outcomes (p. 441). Therefore, different projects need different timeframes for their impacts to be felt.

**Controversy over MCC**

On the one hand, MCC has been praised for "reflecting key principles of aid effectiveness" (Rose & Wiebe, 2015a). On the other hand, it has been criticised for being driven by "broader US government political and diplomatic interests in a way that is inconsistent with the spirit of MCC's formal eligibility system" and for not being transparent about the evaluation process (Rose & Wiebe, 2015b). Mawdsley (2007) also

highlighted that the Millennium Challenge Account (MCA) was not directed towards poverty reduction as it claimed but to the expansion of US economic hegemony. "In this respect, it should be placed within a longer history of empire through its attempts to actively reshape the legal, institutional, infrastructural and financial contexts of poorer countries to suit US economic interests better", she claimed (ibid, p. 389).

McMichael (2012) pointed out that most MCC Compacts signed with African countries have focused on agriculture, with a central land privatisation component (p. 695). According to him, this is an attempt to impose a '*global ecology*' rationale for land grabbing in the pretence of national development (ibid, p. 693). Sachs (1993) defined *global ecology* as the "rational planning of the planet for Northern security" (p. 20). Fogelman (2018), analysing the MCC-sponsored land reform in Lesotho, highlighted that the reform had provided Lesotho with economic growth but with no apparent poverty reduction (p. 257). He further argued that the MCC Development project "…led to the dispossession of several vulnerable households of their agricultural fields" (ibid, p. 258). Fogelman (2018) also underlined that the MCC's entry provoked rapid land seizures.

In analysing the proposed MCC's Compact for Sri Lanka, the Committee to Review the Proposed Millennium Challenge Corporation (2020) stated that it was problematic that the projects selected had not included some of the highly prominent investment proposals that would be important for the socio-economic development of the country. The Committee further pointed out that it was questionable whether the selected projects were the actual priorities of Sri Lanka or whether they were mere of interest to MCC. Eventually, the Committee did not recommend signing the Compact in the way the agreement was standing.

### Necessity for a Cross-Country Analysis

Overall, the evidence in the literature appears to be mixed. While many studies substantiate the MCC's successes, there are also broad criticisms that the MCC has not been effective in reaching its stated objective of assisting the grant recipient countries in accelerating their economic growth. Besides, thus far, not many cross-country studies on the MCC's growth impact have been conducted. This calls for further research on the subject. Therefore, the present study attempted to shed light on the comparative economic growth performance in the MCC grant recipient economies.

## METHODOLOGY

This study attempted to investigate whether the MCC successfully achieved its stated objective of assisting the grant-recipient countries in accelerating their economic growth. It was a cross-country study consisting of a diversity of projects funded through the MCC grants and the degree of achievement of one of the programme's specific objectives, namely, "the growth promotion" in recipient countries (through the removal of constraints to growth), as reflected by the economic growth indicators, was focused in the analysis.

For this purpose, a comparative analysis of the growth performance of MCC recipient nations before and after the receipt of MCC's support, and also in comparison to those of non-recipient nations to examine the "with-and-without effect", was conducted in the present research.[1]

Initially, the average annual Gross Domestic Product (GDP) per capita growth rates[2] "before" and "after" receiving the MCC grants were compared to observe whether there has been a significant difference. Secondly, a regression analysis was conducted to capture both the "with and without effect" as well as the "before and after effect". Macroeconomic data were fetched from the World Bank database. The years in which the MCC grants were obtained by the recipient countries were sourced from the MCC website.

As portrayed by Barro (1996), a feature of the neo-classical growth model is the "convergence property" (p. 4). This feature implies that economies with relatively lower initial GDP per capita would grow at relatively rapid rates. On the other hand, investment is considered the engine for growth, and as per the Harrod-Domar Growth model, the rate of growth of output would be determined by the Incremental Capital-Output Ratio (Hussein & Thirlwall, 2000). Kuznets (1961) also recognised that the additions to output require the "additions to reproducible capital" stock (p. 15). Thus, a regression model was constructed based on the theoretical underpinning that the initial GDP per capita and average annual Gross Capital Formation as a percentage of GDP (or "Investment Ratio") could be effective determinants of average annual GDP per capita growth rates.

The highest number of MCC grants obtained by countries was two (2). Therefore, two (2) dummy variables were also introduced as regressors to indicate whether a particular period considered was "before" or "after" the receipt of the first or the second MCC grant. The very first MCC grant was signed in 2005. Since a period before the intervention of an MCC grant needed to be considered for the before-and-after analysis, 18 years from 2000 to 2017 were considered. This period was broken into two or three depending on whether one (1) or two (2) MCC grants had been obtained by each recipient country while using the years in which the agreements were signed as points of separation of periods.

To check the "with" and "without" effect, all 36 non-MCC recipient LICs and LMICs (the categories of countries that are eligible to receive MCC grants) were also included in the analysis. Thus, a "with-and-without" analysis as well as a "before-and-after" analysis were both undertaken through the same econometric model. On the one hand, the average annual GDP per capita growth rates of non-recipient countries (without MCC case) were

[1] Therefore, analysing each project's benefit/cost effectiveness separately was not intended to be pursed in this study.

[2] The present study used GDP per capita growth rate instead of GDP growth rate, to set off against any possible impact of changes in population.

compared against those of the recipient countries (with MCC case). On the other hand, the average annual GDP per capita growth rates that prevailed during the period prior to the receipt of the MCC grant (before MCC case) were compared against those realised after receiving the grant (after MCC case).

If the MCC grants had a significant positive impact on growth rates of recipient countries, an upward shift of the growth path after the receipt of the MCC grant would be observed, compared to the trend experienced by the recipient countries prior to the receipt of MCC grant, as well as compared to the average growth path of the non-recipient nations during the overall period of examination. The t-values and signs of the coefficients associated with the two MCC dummy variables would mirror whether the impact of the MCC grant had been significant and growth promoting.

A variable was introduced to represent the "length of the time period" since the duration of periods became unequal owing to different points in time at which the MCC grant facility had intervened. The full length of 18 years was considered for those countries without any MCC facility. Accordingly, 123 data points obtained from 76 countries were considered in the present analysis. It was intended that the variable representing the "length of the time period" would capture any effect of duration on the average annual GDP per capita growth rate.

Sub-Saharan African countries have been the largest recipients of the MCC's development assistance. However, as highlighted by Chevallier and Le Goff (2014), their GDP per capita levels remained lower than those of other developing countries. Bosker and Garretsen (2012) pointed out that the region's geographical disadvantages are often viewed as an important determinant of its dismal economic performance (p. 443). Therefore, a dummy variable was introduced to indicate the belongingness of a given country to sub-Saharan Africa, and to capture growth dynamics, if any, specific to the region.

As was stated at the beginning, countries that are candidates for MCC Compact eligibility must qualify as LICs or LMICs. Eichengreen et al. (2018) portrayed that economic factors associated with growth appeared to differ between middle-income and other countries (p. v). Thus, another dummy variable was included to indicate whether a country was an LMIC by the period's starting year.

Initially, the individual explanatory variables were plotted to perceive their relationship with the dependent variable, the average annual GDP per capita growth rate. This analysis revealed that the features were linear, which implied that a linear regression model could fit the given data without any transformation. Thus, the relationship between the average annual GDP per capita growth rate and its determinants was estimated by regressing the following equation:

$$G = \beta_1 + \beta_2 PCI + \beta_3 IR + \beta_4 MCC1 + \beta_5 MCC2 + \beta_6 NY + \beta_7 SSA + \beta_8 LMIC + \mu \quad (1)$$

where,

G - Average annual GDP per capita growth rate of a country during the considered period
PCI - GDP per capita at the beginning of the considered period
IR - Average annual Gross Capital Formation as a percentage of GDP ("Investment Ratio")
MCC1 - First MCC grant dummy variable (1, if the first MCC grant has been obtained in the considered period)
MCC2 - Second MCC grant dummy variable (1, if the second MCC grant has been obtained in the considered period)
NY - Number of years in a given period before/without MCC intervention or thereafter
SSA - Dummy for Sub-Saharan Africa (1, if the country belonged to the African continent)
LMIC - LMIC dummy variable (1, if the country was an LMIC)

By 2016, 40 countries worldwide had signed MCC agreements for Compact and/or Threshold Programmes. However, Sao Tome and Principe's Gross Capital Formation data were unavailable. Data on 36 comparable countries that had not received MCC grants were also obtained. Thus, data on 76 countries altogether, corresponding to the 123 observations, were used in the present examination, including all LICs and LMICs, according to the World Bank country classification by income level (World Bank, 2020).

A cross-sectional analysis was thereby performed. The Variance Inflation Factor (VIF) was used to detect multicollinearity. The VIF values were below five (5), and thus, no presence of multicollinearity was found. Thus, amidst others, no evidence of correlation between the MCC dummy variables and the investment ratio was found. A few outliers were identified using scatter plots and removed to ensure normal distribution of the residuals.

The normality of the residuals of each model was tested using the Shapiro-Wilk test of normality, which indicated no significant departure from normality. Breusch-Pagan / Cook-Weisberg test for heteroskedasticity was conducted. Based on the test results, robust standard errors were used in the model interpretation. Stata Statistical Software (15.0) was deployed to estimate the model.

## RESULTS AND DISCUSSION

Firstly, the average annual GDP per capita growth rates before and after receiving an MCC grant were examined. They were found to be not normally distributed. Thus, the Wilcoxon signed-rank test was used to compare the paired means. The null hypothesis that the median difference between the two variables being equal to zero was rejected

under a 1% level of significance, indicating the presence of a significant difference between average annual GDP per capita growth rates before and after receiving the MCC grant ($z = -4.97$, $p = 0.000$). It suggests that the MCC intervention has significantly impacted the country's average annual GDP per capita growth rate.

Secondly, the magnitude and the direction of this significant impact were tested through a regression model, in which three different variants of models were examined. From the 76 countries analysed, 123 observations were formed; some countries being considered as two (three) separate observations if one (two) MCC grant (grants) had been received by them. Table 1 below gives the descriptive statistics of each variable.

**Table 1: Descriptive Statistics**

| Variable | Obs. | Mean | Standard Deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Initial GDP per capita (in 100 USD) | 123 | 1,168.18 | 1,056.92 | 124.46 | 4,623.73 |
| Ann. avg. Gross Capital Formation (% of GDP) | 123 | 6.67 | 5.00 | -7.86 | 20.30 |
| Number of years | 123 | 9.72 | 4.97 | 1 | 17 |

Source: Author's calculations based on data

Table 2 below summarises the results of the regression analysis. The Model-2 emerged as the best-fit. The coefficient of the initial GDP per capita indicated a negative and significant influence on the dependent variable, except in Model 1, where the influence did not emerge as significant. The higher initial income level makes it less easy to grow further; thus, such a negative direction of relationship indicated in Models 2 and 3 was theoretically expected. Hence, the data supported Clark Kerr's *Theory of Convergence* (Kerr et al., 1964).

The Investment Ratio emerged as a positive and significant determinant in all three models tested; again, a theoretically expected result. For example, the Harrod-Domar Growth model focused on capital accumulation as the engine of economic growth (Shuaib & Ndidi, 2015). The length of duration indicated a negative and significant influence in all three models tested, indicating that the longer the period, the lower the average annual GDP per capita growth rate for the considered period. This could possibly suggest that developing countries practise ineffective long-term economic policies. This could possibly suggest that developing countries practise ineffective long-term economic policies and therefore economic growth would be unsustainable in the long run. The dummy variable representing Sub-Saharan Africa became negative and significant in the two models tested with it, indicating the presence of a slower growth rate characteristic of the region. The LMIC dummy variable, when introduced in Model-3, became negative though insignificant. It implies that there is no statistically significant evidence to suggest that being an LMIC or not would have had an impact on the average annual GDP per capita growth rate.

**Table 2: Results from OLS Regression**

| Variable | Model 1 | Model 2 | Model 3 |
|---|---|---|---|
| Constant | 9.834***<br>(1.836) | 12.450***<br>(2.034) | 12.620***<br>(2.105) |
| Initial GDP per capita (in 100 USD) | -0.027<br>(0.032) | -0.107***<br>(0.036) | -0.096***<br>(0.036) |
| Ann. avg. Gross Capital Formation (% of GDP) | 0.118**<br>(0.046) | 0.087**<br>(0.044) | 0.088**<br>(0.044) |
| MCC 1 (Dummy variable) | -3.750***<br>(1.084) | -2.933***<br>(1.053) | -2.915***<br>(1.060) |
| MCC 2 (Dummy variable) | -5.729***<br>(1.191) | -5.143***<br>(1.071) | -5.191***<br>(1.074) |
| Number of years | -0.352***<br>(0.099) | -0.349***<br>(0.097) | -0.353***<br>(0.098) |
| Sub-Saharan Africa (Dummy variable) | | -2.811***<br>(0 .765) | -2.978***<br>(0.820) |
| LMIC (Dummy variable) | | | -0.500<br>(0.914) |
| $R^2$ | 0.35 | 0.41 | 0.41 |
| F-value | 13.94 | 17.83 | 16.21 |
| Number of observations | 123 | 123 | 123 |

Note: ***, ** and * indicate significance at 1%, 5% and 10% respectively. Robust standard errors are reported in parentheses.

It should be noted that it was not possible to isolate the effect of the first MCC grant during the period relevant to the second grant if any. It could not be assumed that the effect of the first MCC grant would end when the second grant came into effect. According to all three models estimated, the coefficients of both MCC 1 and MCC 2 dummy variables, standing for the first and the second intervention of an MCC grant, respectively, showed a negative and significant bearing on the dependent variable. This finding brought suggestive evidence to infer that MCC grants would have negatively affected the growth rates of the recipient countries.

In a scenario "with" an MCC grant, the average annual GDP per capita growth rate would be lower than in a comparable scenario "without" an MCC grant. These results conform with those of Dunusinghe (2020, 2021), in which evidence had been brought towards the MCC grants having been unable to fulfil their explicit objectives. Although researchers like Ospina and Block (2017), Blair et al. (2012) and ISSER (2012) argued that MCC-funded projects have promoted growth, the findings of the present study do not support such inferences. Even if there could be micro-level achievements, no such

accomplishments could be observed through macro indicators, as per the study's outcomes.

The suggestive evidence from this study's outcomes points to several important inferences. At the outset, the results of the statistical analysis reflect that the macroeconomic indicators of the MCC recipient countries do not substantiate a hypothesis that the MCC programme, from an overall perspective, has been able to realise its explicit objective of stimulating economic growth in the recipient countries. However, such apparent non-reflection of growth impetus of the MCC grants in recipient countries, compared to their trends prior to receiving the MCC support and also to the non-recipient nations, could imply several possible causalities.

First, it could be hypothesised that the MCC projects may not have been well conceived, focusing on the growth-oriented interests of the recipient countries. Such a hypothesis would align itself with the often-cited criticism that development assistance, in many ways, is "political projects" by donor countries (Lancaster, 2006) and that aid effectiveness could be influenced by donor motivations (Gisselquist and Tarp, 2019). The possibility of MCC grants being driven by the donor's geopolitical intentions rather than the recipient countries' development needs could be seeded for further analysis.

Second, if the MCC grants are to be assumed as driven by the growth interests of the recipient nations (in contrast to the above hypothesis), their apparent ineffectiveness in significantly driving growth, as reflected in macroeconomic statistics, could well be searched in the domains of possible failure, either in the Constraint Analyses (not being able to identify the real growth constraints), or in the implementation of projects to remove the identified growth constraints, or even in a combination of both the possibilities.

Politics of the aid recipient countries have been cited in the literature as among such influencing factors, while bureaucratic failures and conjunctural causalities also could have possibly been causal effects for such failures in intervention. Identification and fathoming their degree of influence must be perused through micro-level analysis, which was beyond the defined scope of the present research.

Finally, the possibility of any investment intervention having a longer-term lagged effect of growth stimulation also cannot be ruled out; more time might be needed to observe the effects of micro-level interventions through macro-level indicators (see Blair et al., 2012). This is because different projects may need different timeframes for their effects to be felt.

Considering the above, it is evident that further research would be necessary to examine the degree of intervention of such possible causalities to confirm the suggestive evidence revealed through the statistical analyses undertaken in the present study on the degree of success of aid assistance through the MCC programme.

## CONCLUSIONS

Extensive research conducted regarding the effectiveness of foreign aid on economic growth in developing countries have not produced conclusive results. The well-known research of Burnside and Dollar (2000) portrayed that foreign aid could be more effective if institutions were stronger. It is often suggested that the MCC was set up partly based on this new finding, to provide grants to countries that have good policies and are ready to reform their institutions to ensure free market practices. However, the body of research on aid, policy performance, and growth conducted after the MCC was founded is inconclusive on this relationship (see, for instance, Easterly et al., 2004).

The present research, with its macro-level analysis, aimed at examining the effectiveness of the MCC grants in stimulating economic growth in the recipient countries. Its focus was to perceive whether the per capita growth rates of the recipient countries and their evolutions reflect any significant growth impetus after receiving MCC grants. Firstly, the level of growth before receiving and after receiving MCC's support was compared. Results indicated the presence of a significant difference between average annual GDP per capita growth rates before and after receiving MCC grants. Secondly, a regression analysis was conducted, through which both the "before and after", as well as "with and without" effects were examined. The coefficients of MCC dummies became significant and negative, an indication that the MCC recipient countries would have recorded a lower growth impetus during the post-MCC period compared to their own growth rates during the pre-MCC period and compared to what was realised by the non-recipient countries. .Thus, the present study yielded no evidence to suggest that the MCC grants would have been successful in accelerating the growth impetus in recipient nations.

It could however be argued that any micro-level achievements, like high closeout ERRs reported, could yet to be observed through macro level indicators used in the present research. Besides, the growth effect of any investment activity would be perceived with a reasonable time lag, and the periods after obtaining the MCC grants by many countries could be too short to reflect the growth effect in macroeconomic indicators used in the present analysis. Thus, further investigations after gathering data for a few more years into the future are needed to perceive whether such a significant lagged effect is present. Moreover, there could also be other variables, pertaining to country-specific conjunctures or fluctuations in the world economic conditions which may have intervened in economic growth path of individual countries, though not included among determinants in the present econometric analysis. Future studies also could explore the possibilities of using the values of MCC grant received instead of the dummy variables. Therefore, the suggestive inferences made through the results of the present study may have to be reconfirmed through such further research prior to arriving at final conclusions. Such future research could also examine whether any inherent weaknesses or shortcomings in relation to development and implementation of the MCC investment programmes (such as in Constraints Analyses or in implementation mechanisms, which appear notably

peculiar to the MCC grants and quite different from other international donor programmes) have been behind the observation made in the present study, if confirmed through future research as well, that the MCC programme has not been successful in significantly promoting economic growth in the recipient countries.

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