

Feature Article

IMPACT EVALUATION OF ENTERPRISE SINGAPORE'S ENTERPRISE DEVELOPMENT GRANT (EDG) AND ENTERPRISE DEVELOPMENT GRANT-INDUSTRY (EDG-I)

OVERVIEW

The Enterprise Development Grant (EDG) and the Enterprise Development Grant-Industry (EDG-I) are enterprise capability development schemes managed by Enterprise Singapore. In 2018, the Capability Development Grant (CDG) and Global Company Partnership (GCP) grant were harmonised into the EDG, to support firms embarking on projects that strengthen their business capabilities to support their subsequent growth. On the other hand, EDG-I supports industry projects that are undertaken by a lead company working with small- and medium-sized enterprises (SMEs) to catalyse industry or enterprise transformation.

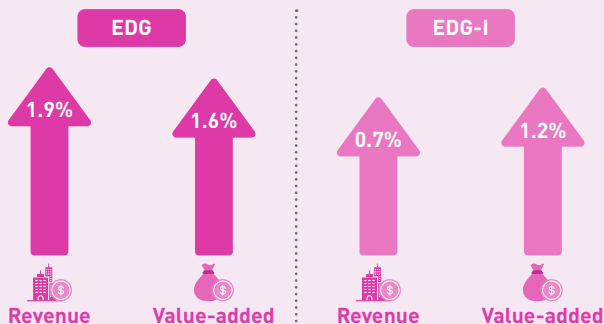


FINDINGS

This article examines the impact of the EDG and EDG-I on firm-level outcomes such as revenue and value-added, using firm-level administrative data from the Department of Statistics and data on EDG and EDG-I from Enterprise Singapore.

Finding 1:

EDG and EDG-I grant recipients saw statistically significant increases in revenue and value-added relative to non-grant recipients, in line with policy intent.



Finding 2:

Effects on revenue and value-added are larger for smaller firms, consistent with the policy objective of helping smaller firms to invest in longer-term capability development and transformation.



POLICY TAKEAWAY

Companies can tap on Government's schemes, such as the EDG and EDG-I, to embark on projects that drive capability-building and improve productivity to remain competitive. The Government will continue to review its suite of enterprise schemes to ensure that they remain relevant and effective in helping firms to adapt, transform and seize opportunities.



EXECUTIVE SUMMARY

- The Enterprise Development Grant (EDG) and Enterprise Development Grant-Industry (EDG-I) are enterprise capability development schemes managed by Enterprise Singapore. The EDG helps firms to embark on development projects that strengthen their business capabilities to support their subsequent growth. On the other hand, the EDG-I supports industry projects that are undertaken by a lead company working with small- and medium-sized enterprises (SMEs) to catalyse industry or enterprise transformation. Using firm-level administrative data, this study evaluates the impact of the EDG and EDG-I on firms' revenue and value-added (VA).
- Our findings show that firms that received EDG and EDG-I saw an increase in their revenue and VA, relative to similar non-recipient firms. The impact was generally larger for SMEs, consistent with the policy objective of helping smaller firms to invest in longer-term capability development and transformation.

The views expressed in this paper are solely those of the authors and do not necessarily reflect those of the Ministry of Trade and Industry or the Government of Singapore.¹

INTRODUCTION

The Enterprise Development Grant (EDG) and the Enterprise Development Grant-Industry (EDG-I) are enterprise capability development schemes managed by Enterprise Singapore. The EDG was formed in 2018 following the merger of the Capability Development Grant (CDG) and Global Company Partnership (GCP) grant.² It aims to provide holistic support that enables local enterprises to strengthen their business capabilities to support their subsequent growth. This includes helping them to adopt digital solutions, innovate and raise productivity.

The Enterprise Development Grant-Industry (EDG-I)³ was introduced in 2019. Unlike the EDG that provides support for firm-level projects, the EDG-I supports group-based industry projects, where a lead company works with a group of small- and medium-sized enterprises (SMEs)⁴ (henceforth participating companies) to catalyse industry or enterprise transformation. The lead companies are typically knowledge leaders and experts in their respective industries, and therefore well-equipped to act as multipliers to amplify enterprise transformation across more companies.

Both the EDG and EDG-I support up to 50 per cent of eligible project costs,⁵ with funding levels temporarily enhanced during the COVID-19 pandemic to encourage enterprise and industry transformation, as well as help viable businesses weather and emerge stronger from the crisis.

An earlier study by Toh et al. (2021) found that the CDG and GCP were associated with better firm-level outcomes such as revenue over the period of 2009 to 2018, potentially due to improvements in firms' capabilities as a result of the grants. Given the streamlining of the CDG and GDP into the EDG, as well as the introduction of newer grant models such as the EDG-I, it is important to update the earlier analysis to assess whether the schemes continue to be effective in strengthening firms' capabilities. This study thus extends the earlier study to evaluate the impact of the EDG and EDG-I on firms' revenue and value-added (VA) using updated data.

¹ We would like to thank Ms Yong Yik Wei, Dr Andy Feng and Ms Jamie Poh for their useful suggestions and comments. We are also grateful to colleagues from Enterprise Singapore for their inputs to this study, as well as the Department of Statistics for the statistical support provided. All remaining errors belong to the authors.

² The CDG aimed to help firms build capabilities across areas ranging from productivity improvements and human capital, while the GCP aimed to encourage Singapore companies to internationalise and become globally competitive.

³ EDG-I applies to qualifying firms participating in strategic initiatives identified by Enterprise Singapore.

⁴ SMEs are defined as having a group revenue of up to S\$100 million or group employment size of up to 200 employees.

⁵ Support levels are accurate at the point of our study (2025).

DATA

Our study taps on an anonymised longitudinal firm-level administrative dataset from the Department of Statistics that includes firm-level variables such as revenue and VA, augmented with data on EDG and EDG-I from Enterprise Singapore.⁶

Our study evaluates the impact of EDG on grant recipients over the period of 2019 to 2022, and the impact of EDG-I on participating companies over the period of 2020 to 2022 as the latter scheme was launched later.

EMPIRICAL METHODOLOGY

Similar to Toh et al. (2021), a fixed-effects regression methodology is used to estimate the causal impact of the EDG and EDG-I on firm-level outcomes. This approach controls for the effect of firm-specific characteristics that are observable (such as their ownership status) and those that are unobservable but time-invariant (such as managerial quality and organisational culture), as well as macroeconomic shocks which would have affected all firms (such as the COVID-19 pandemic). To isolate the effects of the EDG and EDG-I, the regression model also controls for the effects of other government grants⁷ taken up by the same firm.

The regression specification is as follows:

$$\log(Y_{it}) = \beta \log(\text{grant}_{it}) + \eta \log(\text{other grants}_{it}) + X_{it} + \alpha_i + \theta_t + \epsilon_{it}$$

where:

- Y_{it} refers to the outcome of interest for firm i in year t , i.e., revenue and VA.
- grant_{it} ⁸ measures the cumulative amount of the EDG or EDG-I grant disbursed⁹ to firm i up to, and including, year t .
- other grants_{it} measures the cumulative amount of other grants combined (i.e., excluding the EDG or EDG-I grant under study) disbursed to firm i up to, and including, year t .
- X_{it} is a set of firm-level controls, including ownership status (i.e., local or foreign firm) of firm i in year t .
- α_i and θ_t represent the firm-level and year fixed effects, respectively.
- ϵ_{it} represents the error term.

The coefficient of interest is β , which measures the impact of the EDG or EDG-I on firm-level outcomes. It can be interpreted as the estimated average per annum impact of an increase in the cumulative grant amount on firm-level outcomes.

RESULTS AND DISCUSSION

EDG

The average EDG grant recipient saw statistically significant increases in both revenue and VA. Specifically, a typical grant is associated with a 1.9 per cent and 1.6 per cent per annum increase in the recipient firm's revenue and VA respectively over the study period of 2019 to 2022, compared to similar firms that did not take up the grant (Exhibit 1).

By firm size¹⁰, the results show that the EDG had a more significant positive impact, in percentage terms, on the firm-level outcomes of SME recipients as compared to recipients that were larger. This finding aligns with the policy objectives of the scheme, as the EDG is designed to incentivise smaller firms, which may face greater financial constraints, to invest in longer-term capability development and transformation.

6 EDG-I grant amounts are disbursed directly to the lead company. To proxy for the disbursement amount that each participating company indirectly received through the EDG-I project, we divide the total grant amount for each project by the number of participating companies.

7 These would include other capability development grants such as the Productivity Solutions Grant (PSG) and the pandemic-era Jobs Support Scheme that are not the focus of our study.

8 The cumulative grant amount is computed from year 2019 for EDG and 2020 for EDG-I.

9 The grant is disbursed after the project is completed. Our treatment variable is based on the year of project completion rather than the year of grant application, as the effects of the project are likely to start to materialise only after the completion of the project.

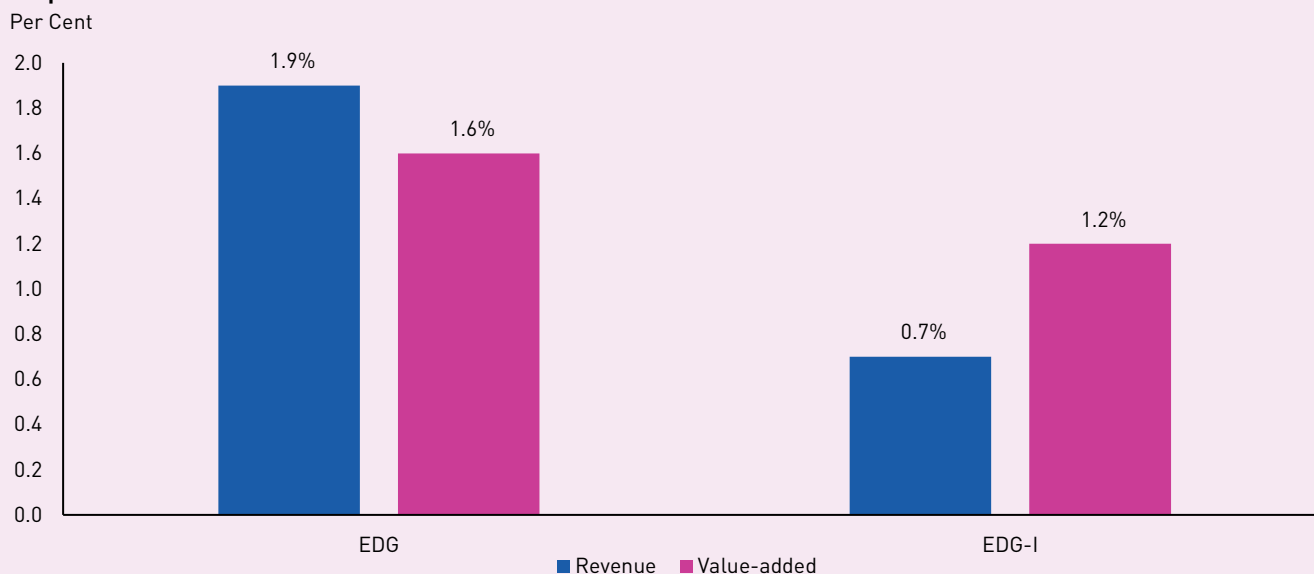
10 Separate regressions were run for each firm size category, proxied by the firm's annual revenue: Micro: <\$1 million, Small: \$1 million to \$10 million, Medium: \$10 million to \$100 million, Large: >\$100 million.

EDG-I

Similarly, the EDG-I led to an improvement in firm-level outcomes for participating companies, with statistically significant increases in revenue and VA observed for the average participating company. In particular, a typical grant resulted in an increase in the participating company's revenue and VA of 0.7 per cent and 1.2 per cent per annum respectively over the period of 2020 to 2022 (Exhibit 1).

Micro firms benefitted the most from participating in EDG-I projects as they saw the largest positive impact on their outcomes, in percentage terms. One possible explanation is that smaller firms are likely to face more constraints and hence might not have undertaken business transformation efforts without the support provided by EDG-I.

Exhibit 1: Percentage Change Per Annum in Firm-Level Outcomes for EDG and EDG-I Recipients Compared to Similar Non-Recipients



Source: Authors' estimates

Note: All results are statistically significant at the 10 per cent level.

CONCLUSION

This study found that the EDG and EDG-I have been effective in helping firms to improve their capabilities, which is reflected in an increase in their revenue and VA after receiving the grant. The impact was generally larger for SMEs, consistent with the policy objective of supporting smaller firms that are likely to face greater constraints in investing in longer-term capability development and transformation.

Given the increasingly complex economic environment and rapid technological advancements, it is important for firms to continue to transform and improve their productivity so that they can remain competitive. In this regard, the Government will continue to review its suite of enterprise schemes to ensure that they remain relevant and effective in helping firms to adapt, transform and seize opportunities.

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