

Efficiency and competitiveness of a South Africa grant support programme for small, medium, and micro-sized enterprises

Timothy Olaniyi Aluko

Abstract: *The paper investigates the efficiency and competitiveness of a state grant support programme for small, medium, and micro enterprises (SMMEs) in South Africa. A balanced scorecard measurement framework through key performance indicators (KPIs) was applied using aggregate firm level datasets from 2012 and 2017. Empirical results show that the state grant support programme does not have a significant approval rate. Incomplete procedural requirements and overextended turnaround time between the approval and conversion processes contributed to the negative performance of the programme. This implies that the programme policy is overridden or partially set aside, contributing to inadequate allocation and inappropriate distribution of the programme funds to the targeted beneficiary. Further, the programme access choices are distorted, with qualifying beneficiaries prioritized against the targeted group. Funding programmes established for political reasons lead to programme distortion and inefficiency. Therefore, there was a trade-off between fiscal allocation, disbursement, performance, and efficiency.*

Keywords: efficiency, competitiveness, performance, SMMEs, balanced scorecard

Introduction and background

OVER THE YEARS, THERE HAS been consensus in the literature about the fact that informational asymmetries generate credit constraints for small, medium and micro-sized enterprises (SMMEs) (Akcigit et al., 2021). The failure of private lending institutions to allocate credit efficiently within the SMMEs credit market may indeed be because of fundamental information problems (Akcigit et al., 2021). Credit market operators have less information to evaluate the risk for SMMEs, but government agencies spend fewer resources, or sometimes none at all, on gathering and analysing information about their clients. Lenders rely on instructions from guarantors and sometimes on collateral with the intention of closing the financing gap for SMMEs without compromising the interest of the lender shareholders (Demmou and Franco, 2021).

Information asymmetry, as explained in the early 1980s by Stiglitz and Weiss (1981), leads to credit rationing by credit providers due to agency problems in the

Timothy Olaniyi Aluko (Ealukot@unisa.ac.za), Department of Management Accounting,
University of South Africa (Unisa)

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credit market. Agency problems imply that officials of financial institutions, who represent the interest of their shareholders, must protect shareholders' interests when providing credit to borrowers without compromising their decision (Akcigit et al., 2021; Makina et al., 2015). Information asymmetry is common where the lenders have little information about the borrowers' risks and expected returns on the proposed investment while the borrowers are in a position to know the expected returns and risk of their projects (Akcigit et al., 2021). Hence, because of the lack of information, lenders may decide not to grant credit. This is the main motivation for government intervention programmes to bring about closing of the credit gap for SMMEs. While South Africa has a relatively sophisticated banking market (69 per cent of adults were banked in 2017), recent estimates of SMME access to formal credit in South Africa vary, but are low, ranging from 3 per cent in 2010 to 22 per cent in 2014 (Makina et al., 2015). A recent report by Rajagopaul et al. (2020) highlighted that only 6 per cent of SMMEs surveyed in South Africa received government funding. On the other hand, 9 per cent had sourced funding from private sources. The majority of private equity funding has largely been focused on big businesses with around 90 per cent of private funding going to businesses that have been in operation for five years or more.

The grant programme may be a complementary source of funding for SMME capital and investment needs for growth and sustainability; then they graduate into the mainstream economy so that they can start to contribute to tax and national output (Akcigit et al., 2021; Maduku and Kaseeram, 2019). The main problems of SMMEs highlighted in the literature include the lack of resources such as financing, innovation, and technologies (Dambiski Gomes de Carvalho et al., 2021). One of the key reasons for the low survival rate of SMMEs in South Africa and significant challenges is the lack of access to external finance (Rajagopaul et al., 2020), meaning SMMEs have to rely on internally generated funds which are typically not sufficient to finance expansion and growth. Moreover, SMMEs also face the challenge of poor business credit records, no knowledge on how to find out the appropriate type of funding product for their finance needs, struggling with financial recordkeeping and not being able to produce the financial statements required by funders. These factors are relevant as they may leverage SMMEs' management and innovation capabilities and, in turn, SMMEs' competitiveness (Grimsdottir and Edvardsson, 2018; Goncalves et al., 2017). In response to these challenges, the state established a range of institutions to support SMMEs in South Africa, such as Co-operative Incentive Scheme (CIS), trade, export, and investment incentives, women's economic empowerment incentives, and the Black Business Supplier Development Programme (BBSDP), but the issue is how to access it (Rajagopaul et al., 2020). Similarly, it is important for the funders to ensure that the funding application is simple and accessible for the SMMEs.

In a developed country such as Australia, government financial assistance programmes for SMMEs are developed as a policy strategy through the use of direct assistance, such as tax benefits, grants, trade assistance, and subsidized loans (Xiang and Worthington, 2017). The South African government intervention programme is meant to assist black SMMEs that cannot access capital

from traditional financial institutions to either start a new business or expand the existing one. As far back as 2008, Craig et al. (2008) stated that government intervention programmes for small enterprises indicate the general recognition of a failure by the private sector to allocate capital appropriately and efficiently. This market failure has either resulted in too much or too little allocation of capital in certain sectors of the economy (Kransdorff, 2010). This is also the view of Stiglitz (2000), who thought that the credit market imperfections that resulted in credit rationing for SMEs, and their risky business nature compared to big enterprises, have led to the establishment of government intervention programmes globally. The objectives of these programmes are to reduce credit rationing in the market and to improve access to credit for small enterprises. This type of programme, according to Kransdorff (2010), serves as an alternative means of solving the problem of a lack of capital usually experienced by small enterprises. However, despite establishing the SMEs support programmes, limited or no research has been done to evaluate their efficiency and competitiveness. Moreover, some of the programmes have not been tested or studied to determine if they deliver on their goal and mandate. Hence, the study attempts to investigate the efficiency and competitiveness of such programmes in South Africa.

To cover the knowledge gap, this paper employs an efficiency and competitiveness matrix to characterize the performance of the BBSDP in South Africa. The BBSDP is a grant-funded support programme for SMEs. The programme was established in 2002 to provide grants for SMEs on a cost-sharing basis of 50:50 ratio for tools and machinery and 80:20 ratio for business development intervention. The grant is not repayable by the beneficiaries; however, strict rules apply based on the Broad-Based Black Economic Empowerment (B-BBEE) requirements. Grant approvals are subject to the outcome of the adjudication committee's approval processes and disbursement of approved grants is subject to the availability of fiscally allocated funds. Between 2012 and 2017 the grant received ZAR 1.3 bn (US\$85 m) as an allocation from the government and the same amount were disbursed to 4,739 beneficiaries in the sectors of agriculture, construction, services, retail, and transport services. The matrix linking the two performance dimensions is to capture the BBSDP grant support programme turnaround time, application access, approval process, disbursement rate, policies, and initiatives using the balanced scorecard (BSC) application. Hence, the study focused on operational efficiency and competitiveness performance. The consideration was based on the review of existing programme profiles, policies, mandate and goals, annual operational activities, and reports. The findings from the paper provide significant insights into the performance of the internal business process and policy strategies for the BBSDP administrators, SMEs owners, and policy-makers. Moreover, the study provides a contribution to the empirical literature about the performance of state support and subsidy programmes in developing countries. The rest of the paper is organized as follows: first, both theoretical and empirical literature is discussed, then the methodology is presented, and, finally, the results and conclusions.

Literature review

By definition, efficiency is the ability to produce at maximum output given the level of input through the reallocation of resources based on cost-effectiveness across size and sector groups (Akcigit et al., 2021). Efficiency procedures created in an institution, encourage an increase in the overall company performance and service delivery (Centobelli et al., 2019). Efficiency is a factor of service quality scale which reduces transaction costs and provides decision-makers and policy-makers with feedback on the impact of planned activities. Consequently, efficiency improves the quality of service perceived by the customers (Chang et al., 2017). A study by Daraio and Simar (2007) defines efficiency as the relationship between the number of inputs and outputs. The study by Chang et al. (2017) also found a relationship between efficiency and service quality and the indirect impact that it has on customer satisfaction. Demmou and Franco (2021) viewed operational efficiency as an input process element whereby resources are transformed into outputs. According to Mihaiu et al. (2010) and Lalinsky and Pál (2021), efficiency can be attributed to a relationship between economic efficiency and societal benefit. The view is based on investment and the results. Substantial efficiency gains are possible by redesigning a programme based on the programme's size and sectoral impact heterogeneity (Akcigit et al., 2021). However, measuring the efficiency of programme investments is a challenge (Lalinsky and Pál, 2021). It is a challenge due to the inability to quantify the effects of investments accurately and the direct and indirect externality issues that bring about unclear and inaccurate statement of the investment objectives (Grimsdottir and Edvardsson, 2018). Efficiency performance can be varying, and each variation is tagged to a specific dimension. These variations include scale efficiency, revenue efficiency, allocative efficiency, cost efficiency, profit efficiency, economic efficiency, and technical efficiency (Centobelli et al., 2019).

Competitiveness cannot be defined by a single measure. Benková et al. (2020) described competitiveness as a process of change in a multidimensional activity to address the challenges curtailing the performance of a process that integrates change within the context of time and strategic planning. Competitiveness also means the economic strength of a firm compared with other firms (Lose and Khuzwayo, 2021) especially where new ideas, innovations, and improvement of processes move freely across geographical borders. Furthermore, competitiveness refers to the intention of a firm to design, produce, and market its products by offering better quality products than those offered by competitors (Hamdy, 2018). Grimsdottir and Edvardsson (2018) refer to competitiveness as the ability of a firm to compete with another firm, considering the operating environment, price, and value, which largely revolves around demand and reputation. This corroborates Kaplan and Norton's (2007) opinion that customers are only concerned about turnaround time on delivering better quality products or services. However, the study by Demmou and Franco (2021) indicates that the high volume of applications for the SMMEs grant support programme and the need for speed in the process may have generated frictions in screening procedures which would entail a less efficient targeting of the support programme.

Arguably, state-funded programmes can be a valuable way to obtain the required capital that a SMME needs. A state-funded programme consolidates and creates conditions conducive for businesses to be financially viable, be an effective market entry, and show growth (Demmou and Franco, 2021). In addition, many government support programmes also apply this facility to ease domestic credit conditions, especially for SMMEs (Akcigit et al., 2021). For example, in South Africa, financial support for SMMEs aims to complement current affirmative procurement and outsourcing initiatives in all sectors for resource efficiency among all the B-BBEE enterprises. This is to create a significant redistribution of government resources from one area to another to deliver services to the people and be held accountable. In the OECD countries, using state-funded programmes for SMMEs has been prevalent but controversial (Demmou and Franco, (2021). The argument is that such programmes do not always translate into positive economic decisions based on programme-targeted goals. Sometimes, it is not clear whether the overall benefits of an individual programme outweigh the costs of establishing such state-funded programmes. However, evidence strongly shows that government financial support programmes, such as credit and grants, have been effective. Using firm-level datasets to assess the efficiency and effectiveness of the government support that aimed to curb the economic consequences of the coronavirus (COVID-19) pandemic, Lalinsky and Pál (2021) confirmed that government wage subsidies for SMMEs mitigate firm losses and have a statistically significant effect. Further, the study concluded that larger firms that received relatively smaller sized support, have more space to cover their additional liquidity needs.

On the other hand, in the study by Doan et al. (2021), limited empirical evidence was reported with respect to the efficiency and effectiveness of public instruments for SMMEs. The study used a stochastic frontier approach to estimate firm efficiency scores and found that firms with new product innovation are associated with higher efficiency, but firms with existing product improvement and technology innovation are unable to achieve a higher efficiency level compared to their counterparts. The paper concludes that state support programmes may have limited usefulness for SMMEs; in particular, those that are used alone are neither able to help firms to improve efficiency, nor to reduce the cost of SMMEs' innovation activities (Doan et al., 2021).

Consequently, measuring the efficiency and competitiveness of the various government support programmes required a different approach due to the multi-dimensionality process of the inputs (resources) and outputs (activities). This is a contributing process and a more realistic measure of efficiency. Literature also argues that average measures of firm performance based on profitability measurement may not capture firm efficiency (see Hamdy, 2018; Lalinsky and Pál, 2021). Therefore, measuring efficiency should cover multiple measurements that are important to the performance of a firm. The balanced scorecard (BSC) is a management-based measurement framework to monitor and evaluate the organization's performance activity. BSC is frequently used both in public and private institutions as a tool for performance measurement (Benková et al., 2020). The BSC was first explained by Kaplan and Norton (1992, 1996), and provides

a balance between operating and economic performance, and financial and customer outcomes and is used in combination with a consolidated metric method of performance (Benkova et al., 2020; VanDooren et al., 2015). In a case study conducted by Iwu et al., (2015), the authors explained that financial measurement took place through basic financial accounting and analysis, while nonfinancial measurement criteria included nonfinancial accounting processes and methods. Notwithstanding, any BSC should be adjusted to the objective and strategies of a business unit (Aluko and Ntsalaze, 2021).

Methodology

The study utilized unique aggregate firm-level datasets to evaluate the efficiency and competitiveness of the BBSDP grant support for SMMEs in South Africa. The dataset collection involved multiple sources and a purposive sampling method was used to obtain representative samples. This involved obtaining a representative dataset appropriate for the study. The dataset contains detailed information of 1,196 entries with the following set of variables: operation, application, approval and disbursement amounts, annual fiscal allocation, detailed project, and provincial and financial information. The raw data collected were cleaned, sorted using Excel, and coded using numbers. The dataset was from 2012 and 2017 and was developed into a programme assessment tool. The tool has six key performance indicators (KPIs), and a key question was attached to each KPI. The BSC performance measurement tool used is similar to the measurement framework presented by Kaplan and Norton (1992, 1996) and Aluko and Ntsalaze (2021).

Apart from the dataset obtained from the programme databases, notes were also taken for validation purposes. The field notes and reflective journals include descriptions of the programme implementation process by which beneficiaries made their applications, how long it took for a grant to be approved, the conditions of each approval, rejections, and other conditions attached to grant disbursements. It should be noted that the field notes taken, coupled with interviews held with officials of the programme, facilitated a better understanding of the programme operations. This allows for an in-depth understanding of the programme and beneficiary activities. The field notes provide an opportunity for reflection on the whole investigation process, and the notes were taken during and after each interview to avoid forgetting important issues raised and comments made during the interview sections while they were still fresh in the researcher's memory.

A benchmark and scoring structure was utilized to measure the KPIs. The benchmark was used to check the mean difference of the data compared to very similar programmes in South Africa such as Small Enterprise Finance Agency (SEFA) and Land Bank for the period ended 2016/2017 (Aluko and Ntsalaze, 2021). A scoring of between one and six was applied to each measurement formula. One was characterized as below or not effective, and six to the level of effectiveness using the SEFA and Land Bank benchmark and the KPIs that are internally benchmarked by the BBSDP. The data was then categorized into elements which were then developed

into a framework. The KPIs elements are the proportion of approvals granted and approvals committed, the non-disbursed yearly grant ratio, the total annual value of grants disbursed, the annual approval to annual fiscal allocation ratio, the total number of projects approved, and approvals committed for disbursement. The KPIs were related to the BBSDP objectives, strengths, and weaknesses, and capacity to deliver on the priorities and needs of the beneficiaries. Table 1 summarizes the KPIs, the relevant measurement formulas, the target/benchmark, and the key initiatives used to measure the outcome of the programme efficiency and competitiveness. Histograms were used to inspect the specific behaviour of the provincial and sectoral spread of the programme's approval process. This offered a direct source of valuable information concerning internal business process behaviour and assisted in planning and solving problems of various aspects.

Table 1 Programme assessment tool for efficiency and competitiveness

<i>Key performance indicators</i>	<i>Formula / Measurement</i>	<i>Target / Benchmark</i>	<i>Key initiatives engaged to drive achievement of the target</i>
Total annual value of grants approved	Total annual value of grant approved / total annual value of fiscal allocation *100.	R268 m (US\$ 17.5 m) ² (100%)	Pre-applications assessment and appraisal by network facilitator contributed to approval rate.
Proportion of application approvals committed	Total number of committed contracts signed / total number of application approvals per year.	90%	A delay in allocation of approved application and noncompliance with contract agreements affect committed contracts.
Annual non-disbursed grant ratio	Annual non-disbursed grant / annual approved grant *100.	10%	An internal effective and efficient disbursement preparation and implementation system.
Total annual value of grants disbursed	The proportion ratio of annual grant disbursed compared to non-disbursed grant *100.	100% ²	Prompt disbursement and payment of suppliers' invoices are developed and implemented.
Annual approval to annual fiscal allocation ratio	Total annual approvals/ total annual fiscal allocations.	100% ¹	Uncompleted application, adjudicated committee approval rate and B-BBEE factors influence number of applications approved.
Total number of projects approved and committed	% of annual number of projects approved against target of 720 projects set annually.	100% ²	The enterprise must meet programme arrangement of 80:20 basis contributions or 50:50 basis contribution and comply with programme approval specification processes.

Notes: ¹ Small Enterprise Finance Agency (SEFA) benchmark for 2015/2016 financial year adopted.

² Programme set target for 2017 financial year adopted.

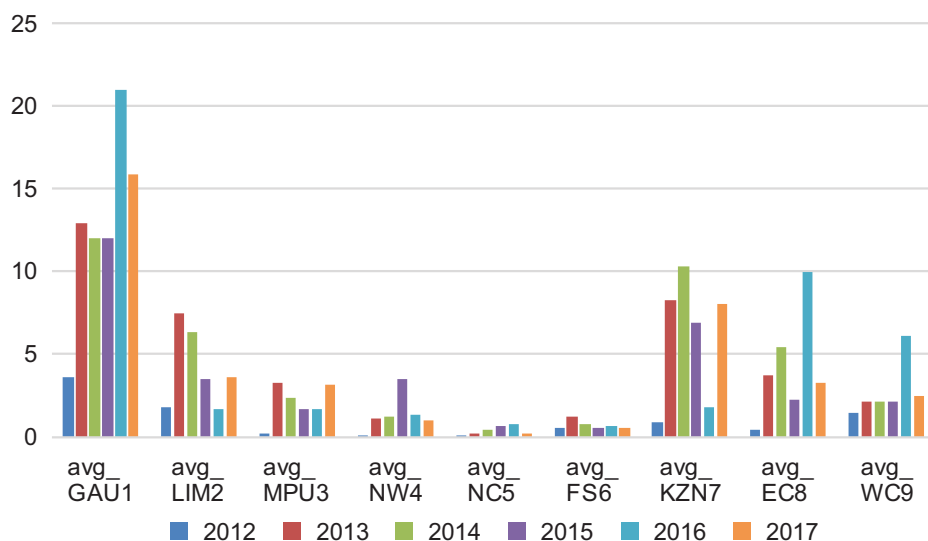


Figure 1 Provincial spread (R m)

Findings and discussion

Provincial and sectoral performance of the BBSDP

Figure 1 shows the provincial approval results level of the programme. The Gauteng (GAU) province recorded the highest number of approvals followed by KwaZulu-Natal (KZN). The Eastern Cape (EC) and Limpopo (LIM) had the same approval level. The provinces with the lowest approval level were the Free State (FS) and the Northern Cape (NC). The results are an indication that more SMMEs from Gauteng, Kwazulu-Natal, and Eastern Cape benefited most from the programme compared to provinces of Western Cape, Limpopo, Northern Cape, and Mpumalanga.

Figure 2 shows that the construction sector had more beneficiaries compared to the agricultural and mining sectors, which recorded the lowest approval level. However, the BBSDP is not meant to specifically target a particular sector for its operations.

Results of the balance score card application assessment tool

Figure 3 shows the performance of each KPI of the BBSDP's efficiency and competitiveness after the application of the BSC assessment tool. KPIs such as the total number of projects approved, annual approval to annual fiscal allocation ratio, and proportion of approved applications to the total number of applications committed all exceeded the set target benchmark of the measurement's framework applied. Two of the KPIs, the total annual value of grants disbursed and the total annual value of grants approved, just achieved the benchmark of the targets. The efficiency of the annual non-disbursed grant ratio did not reach the targeted benchmark. Empirical evidence shows that lack of resources, incomplete procedural requirements, and overextended turnaround time between the approval and conversion

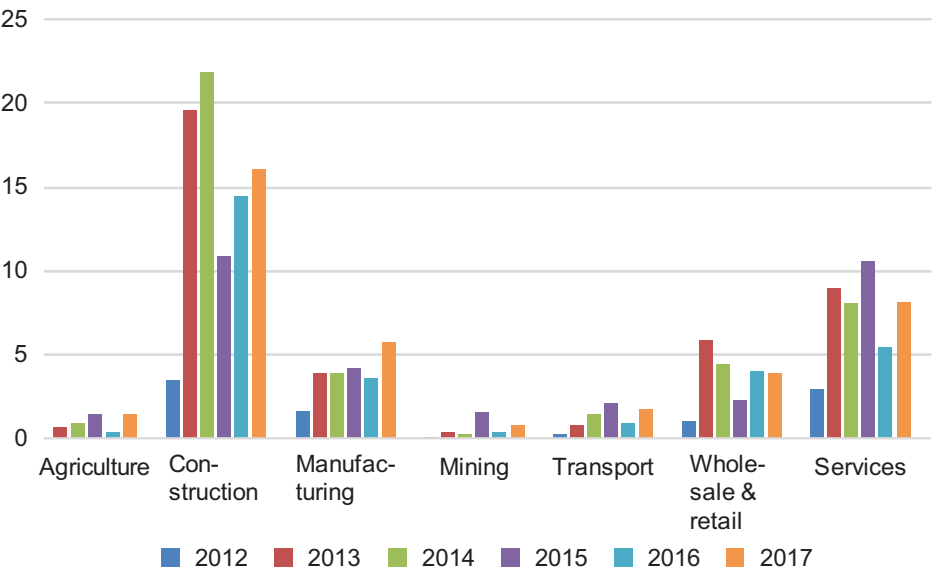


Figure 2 Sectoral spread (R m)

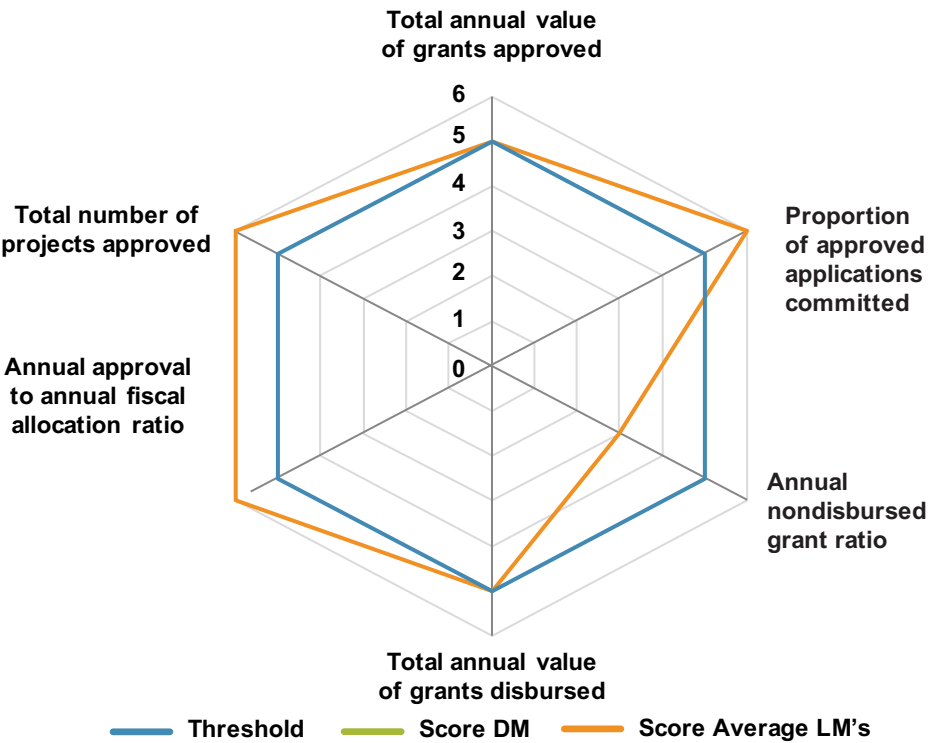


Figure 3 Efficiency and competitiveness performance

processes are major factors contributing to the negative performance. It is also observed that the majority of firms sampled for the study have no history of external funding. This was confirmed in the study by Doan et al. (2021) that state support programmes may have limited usefulness for SMMEs; in particular, those that are used alone are neither able to improve their efficiency, nor reduce the cost of their activities. The results also show that the annual approved amount was consistently higher than the annual fiscal allocation. The annual approved amount that is higher than the annual fiscal allocation, therefore, exposes lapses in the management of the programme's internal controls in general but also dysfunctionality in terms of the project portfolio management system in particular (Akçigit et al., 2021; Demmou and Franco, 2021). The results indicate that there is no coordination among programme appraisal, adjudication, and disbursements officials. This might lead to manipulation of the programme application processes for private benefit. The level of programme awareness also resulted in many enterprises participating in the programme and in a significant value and number of approvals (Aluko and Ntsalaze, 2021). The involvement of advisory intermediaries also greatly influenced the volume of applications received. Advisory intermediaries (network facilitators) serve as the interface between beneficiaries and the programme to assist with administrative engagement of the applicant and are remunerated up to an amount of R21,000 (\$1,377) per approved application.

The empirical results also revealed that the BBSDP's policy on cost sharing was not followed. The contributed amount and the committed amounts by beneficiaries were very low compared to what had been disbursed based on the total approved and disbursed amounts as shown in Figure 1. Therefore, there was no correlation between the amount approved and contributed amount committed by the beneficiary due to the programme's implementation deficiencies. The BBSDP is funded annually through the National Treasury of South Africa. BBSDP beneficiaries are paid in the form of grants, just like in the case of grant incentive schemes, loan guarantee schemes, and subsidy mechanisms (Akçigit et al., 2021) after their application has been successfully adjudicated by an adjudicating committee that usually meets once a month during the financial year. Nonetheless, in South Africa, the performance of various government-funded programmes has been improved post-1994 (Rajagopaul et al., 2020). In terms of resources, a lot has been invested with intended performance outcomes to translate into goals of such programmes. However, the explicit contributions with the aim of improving enterprise sustainability and access to credit are not consistent and sufficient (Doan et al., 2021; Lalinsky and Pál, 2021). Perhaps this is due to non-availability or insufficient research, or if there is any, it is not accessible in the public domain.

The evidence from the study also indicates that the proportion of approvals committed made little significant contribution to the BBSDP's efficiency. This implies that contract commitment requirements for the BBSDP were overlooked. It can be safely concluded that the process does not effectively consider the objectives and mandate of the programme. The evidence supports the view that most BBSDP beneficiaries could not meet their contractual compliance commitments. Therefore, there might be a need to reform the programme's

commitment arrangement concerning identifying different components that contribute to the overall operational efficiency and competitiveness (Hamdy, 2018; Centobelli et al., 2019; Demmou and Franco, 2021). The evidence from the current study does not support the relationship between the annual approval and annual fiscal allocation ratio and the approval amount committed. The contribution of the KPIs to efficiency performance is insignificant. This implies that proactive approval processes and targeted projects were not considered when finalizing the application processes. It might also mean a lack of transparency and proper understanding of the programme commitment objectives, especially where awareness is low and monitoring and evaluation are absent before and after approvals. The evidence is consistent with Grimsdottir and Edvardsson (2018), who developed a procedure to test the operational competitiveness of production output and concluded that the management priority of targeting unstructured applications resulted in a lack of transparency and robustness which is missing in the current programme competitive strategy (Gonçalves et al., 2017).

Conclusion and recommendation

This study contributes to the current debate on the performance, efficiency, and competitiveness of government support programmes in South Africa and beyond. A significant contribution of this study is the empirical evidence generated. The study was to ascertain the efficiency and competitiveness of the BBSDP performance. The empirical evidence from the study shows that the government grant support programme for SMMEs in South Africa (BBSDP) does not have a significant approval rate, equal to fiscal allocation, which has approved funds way above the fiscal allocation. Such a gap implies that, first, programme policy is overridden or partially set aside to receive personal benefit from the programme directly or indirectly by the stakeholders. Second, inadequate allocation and inappropriate distribution of the grants thus affect programme efficiency; therefore it is not competitive compared to other support programmes. The third issue is that the access choices are distorted, with qualifying beneficiaries prioritized against the targeted group. For example, funding programmes established for political reasons led to programme distortion and inefficiency. Therefore, there was a trade-off between fiscal allocation and efficiency. Although the programme shows a relationship between intervention programme and the distribution of resources (Craig et al., 2008), grants approved over and above the fiscal allocation indicated an 'excellent dispersion' of evidence that needs further research. Therefore, the processes and procedures through which state-funding programmes are established and implemented are crucial in determining their success and efficiency. State-funding programmes need to be transparent, easy to access, and comprehensible. Therefore, the study recommends that the state should relax the financial contractual compliance requirements to reduce disparities in the contribution sharing formula between the different categories of beneficiaries; improve programme awareness within sectoral and community development investment needs; and monitor and evaluate related risks and key controls of the programme.

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