

## Antecedent Budgeting Affecting Operational Productivity Moderated by Sustainable Development Goals

Agus Dharmanto<sup>1\*</sup>, Rahmat Prayogo<sup>2</sup>, Josua Panatap Soehaditama<sup>3</sup>, Agustian Zen<sup>4</sup>

<sup>1,4</sup>, Universitas Bhayangkara Jakarta Raya

<sup>2</sup> STIE Swadaya Jakarta

<sup>3</sup> Institut Keuangan Perbankan Dan Informatika Asia Perbanas, Jakarta

**Corresponding Author:** Agus Dharmanto [agus.dharmanto@dsn.ubharajaya.ac.id](mailto:agus.dharmanto@dsn.ubharajaya.ac.id)

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### ARTICLE INFO

*Keywords:* Coaching,  
Performance, Develop  
Organization

*Received :* 12, September

*Revised :* 18, October

*Accepted:* 24, November

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### ABSTRACT

The purpose of this paper is to provide a deeper insight into the relationship between budget and sustainable development, and how organizations can utilize it to achieve better results in various aspects. This paper uses a qualitative research method with literature related to the variables in this paper, which will look at the implementation of the variables in this paper, the literature comes from international journals with a span of ten years. Integrating sustainable development goals into their budget process, businesses can create a more positive impact on the environment and society and ensure better financial accountability. Adopting a more sustainable approach in budgeting and integrating the principles of the SDGs, businesses can contribute to sustainable development and achieve better operational productivity, while fulfilling their social responsibilities.

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## **INTRODUCTION**

Budgets, as a strategic financial planning approach, play an important role in influencing operational productivity within an organization. However, this impact does not occur in isolation and is heavily moderated by the key principles of the Sustainable Development Goals. The combination of previous budgets and the SDGs creates a dynamic framework that shapes the direction and success of a business or institution (teacher MIRELA-OANA Pinteana et al., 2013). Prior budgeting, as a basic element in financial management, involves forecasting and planning for future expenditures based on historical data and current financial performance. It sets the foundation for resource allocation, cost control, and achievement of financial goals. An effective prior budget can lead to improved operational efficiency and productivity by ensuring optimal resource allocation and achieving financial targets (Olatunde, 2019).

On the other hand, the Sustainable Development Goals represent a global initiative that aims to address a wide range of social, economic, and environmental challenges (Robinson et al., 2016). These goals provide a comprehensive framework for sustainable development that goes beyond the financial level of the organization (Biermann et al., 2022). The Sustainable Development Goals encourage businesses to consider environmental impact, social responsibility, and ethical practices in addition to their financial performance. The relationship between previous budgets and the SDGs is complex (Shayan et al., 2022). Initially, previous budgets may have focused on financial metrics, but the influence of the SDGs moderates this approach. When organizations align their budget processes with sustainability principles, they incorporate broader goals and metrics into their financial planning. For example, they may allocate funds to initiatives that promote environmental preservation, support community development, or ensure fair labor practices (Wang et al., 2022).

This moderation by the SDGs not only affects the allocation of financial resources, but also shapes an organization's overall mission and values. Businesses and institutions that prioritize sustainability are more likely to consider the long-term impact of their budget decisions on society and the environment (Emmanuel & Masaru, 2014). This, in turn, can lead to greater operational productivity, as it steers the organization in line with the expectations and values of modern stakeholders, including customers, investors, and employees.

Antecedent budgeting affects operational productivity in organizations. This effect is moderated by Sustainable Development Goals principles (Huynh et al., 2022). Antecedent budgeting sets the stage for resource allocation and financial planning, while SDGs encourage organizations to consider environmental and social impacts. The relationship between antecedent budgeting and SDGs is reciprocal. Organizations can allocate funds for projects that align with SDGs, contributing to sustainability efforts. Budgets help monitor spending on sustainability initiatives, ensuring financial accountability. Budgets support investment in sustainable innovation. SDG-aligned budgets build trust and engage stakeholders, sustainable budgets help organizations mitigate

environmental and social risks (Rachmatullah et al., 2021). Antecedent budgeting and the SDGs work together to promote sustainability and productivity, benefiting both the organization and society (Wamsler et al., 2019).

The relationship between prior budgets and SDGs is symbiotic. Prior budgets can be moderated by the SDGs to encourage a more sustainable and socially responsible approach to finance (Sisto et al., 2020b). At the same time, the budget process can be a powerful tool to drive an organization's contribution to the SDGs and improve operational productivity by aligning with the global goal of sustainable development (Sisto et al., 2020b). At the same time, the budget process can be a powerful tool to drive an organization's contribution to the SDGs and improve operational productivity by aligning with the global goals of sustainable development. (Augustine, 2022). When effectively integrated, these synergies can create a win-win situation where financial success and community well-being go hand in hand (deliyana Firmialy & Hidayat, 2022). The purpose of this paper is to provide a deeper insight into the relationship between budgets and sustainable development, and how organizations can utilize them to achieve better results in various aspects.

## **THEORETICAL REVIEW**

### ***Budgeting***

According to (Christensen & Grant, 2016) Budgeting is the process of creating a plan for spending money. It involves estimating the amount of money that will be earned or received, and then allocating that money to different categories of expenses, such as rent, utilities, food, and entertainment. The goal of budgeting is to ensure that there is enough money to cover all necessary expenses, while also saving money for future needs or goals. Budgeting can be done at various levels, including personal, business, and government levels. Participatory budgeting is a newer political participation tool that allows citizens to have a say in how government funds are allocated, a process in which governments seek direct input from citizens in financial decisions. Participatory budgeting is characterized by the participation of residents of a territorial administrative unit (Garaj & Bardovi\vc, 2021).

According to (Meucci et al., 2015) Risk budgeting is a method of measuring the contribution to risk of a number of factors, strategies, or investments, based on minimum torsion bets, which is a group of uncorrelated factors optimized to closely track the factors used to allocate a portfolio. Risk budgeting is commonly used in banks for risk budgeting and in asset management to build risk-balancing strategies.

### ***Productivity***

Productivity refers to a measure of production efficiency. It is a quantifiable indicator that measures the output of a process or system relative to the input, productivity can be measured in various ways depending on the context (Cheng et al., 2023). Productivity is measured by increased yield and decreased production losses (Campoy et al., 2018). Productivity losses are measured by estimating the effect of health problems on the absenteeism or performance of present employees by attempting to quantify the impact of

impairment self-perceived or comparative, or by measuring unproductive work time (Jain et al., 2016).

### ***Sustainable Development Goals***

The Sustainable Development Goals (SDGs) are a set of 17 goals and 169 targets set by the United Nations to define global priorities and aspirations by 2030. The SDGs represent a pathway to eradicate extreme poverty and aim to keep the world on a sustainable path. These goals cover a wide range of areas, including poverty, hunger, health, education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reducing inequality, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice, and strong institutions, as well as partnerships to achieve the goals (Hajikhani & Suominen, 2022).

The Sustainable Development Goals are interrelated and require a holistic approach to achieve sustainable development. The SDGs can be measured and tracked by various methods, including machine learning, literature review, and stakeholder engagement. Achieving the SDGs requires the involvement of all stakeholders, including governments, businesses, civil society and individuals, and an integrated approach that recognizes the importance of sustainable development in all aspects of life (Camkin et al., 2022).

## **METHODOLOGY**

This paper uses qualitative research methods with literature related to the variables in this paper, which will look at the implementation of the variables in this paper, the literature comes from international journals with a span of ten years.

## **RESULTS**

The results derived from the literature findings will be elaborated in relation to the variables in this paper which starts from the study of belonging to (Bossier & Ekasari, 2017) consider the extent to which site-dependent projects - such as industrial extraction projects, water, or energy projects - can serve as cost drivers and catalysts for sustainable economic development, social, and environmental benefits, as part of a long-term vision for the area to be developed.

Study of (Kalantari et al., 2018) The research findings in the paper state that this model reduced 0.68% of the total factory budget compared to the actual budget for 2016, which is higher than the annual budget of some companies in this group.

Study of (Cox, 2020) in her paper five relevant goals for the inclusion and well-being of older people and the role that social workers can play, with a rights-based approach in their practice, both at the micro, mezzo, and macro levels, to ensure the achievement of the SDGs and that policies and services promote the well-being and inclusion of older people in society.

About 25% of budget items were statistically relevant to the SDGs, with SDGs 11 and 15 having the least impact and SDGs 1, 4, 7, 8, and 16 being the most connected, the aim with the results of this study is to build a foundation of

evidence-based decision support tools for more efficient and sustainable policy design (Sisto et al., 2020a). Study of (ElMassah & Mohieldin, 2020) states Adequate funding for development programs and projects and effective implementation at the local level are also essential. This requires policymakers to direct and encourage investment in The Digital Network Architecture infrastructure and human capital. One of the main limitations lies in the sample of countries used with their own cultural and population characteristics.

Other research results in the paper from (Wicaksono et al., 2021) states The project duration with acceleration is 475 days, labor productivity is divided by experience, age, and education. According to (Cristóbal et al., 2021) in the findings of his paper states that low-income and high-income countries provide higher average public expenditure efficiency. Countries from these two groups are more often considered efficient, which is shown together with the DEA efficient frontier, highlighting that low and upper middle income countries show the greatest room for improvement in public spending.

Study of (Rashid, 2021) stated in his paper improvements in farmers' land tenure security through affordable and efficient land institutions that will promote the emergence of land markets, improved credit markets that will further stimulate increased agricultural productivity for the achievement of the 2030 Sustainable Development Goals. Study of (Arasi & Analizi, 2022) states in its research results that global warming and related environmental issues seriously threaten our planet and have accelerated initiatives to support sustainable development. Green public financial management and budget practices have recently become important in this context.

Study of (Mirzamani et al., 2022) The results show that administrative policy capacity is a prerequisite for achieving the SDGs, the inability of this capacity causes challenges in the implementation of performance-based budgeting by hindering the formulation of plans for changes to the budget system and corresponding annual plans, the implementation of performance-based budgeting does not result in increased policy capacity.

Study of (Raper et al., 2022) In the paper with which it is stated that the results expand this concept into sustainability management in general and explain how it can fit into a broader governance framework. budget for the SDGs, one should carefully evaluate the available data, the suitability of data-driven approaches, and consider alternative methods that are richer in terms of incorporating explicit causal mechanisms and scalable to a large number of indicators (Guariso et al., 2023).

Study of (Yang & Liu, 2023) stated in the results of the paper government support moderates significantly between investment strategy, financial knowledge, and organizational profitability, providing guidance for regulators in the development of SDG-related policies and investment strategies by considering organizational profitability. Study of (Palos-Sánchez et al., 2023) There is great value both for actors involved in the design and implementation of public policy and for those responsible for local governance to improve citizens' experience of services, especially in exceptional circumstances such as those experienced due to COVID-19.

Study of (Halim & Suhaimi, 2023) stated to provide positive improvements for SMEs in similar cases. In addition, the contribution of this research can guide business owners and policy makers on how to develop guidelines for small and medium enterprises to address their problems with practical help in the future, in line with the research results of the study (Alfirević et al., 2023) stating the focus on collaboration patterns and their relationship with research productivity and impact, we also used keyword analysis and scientific mapping to describe the intellectual structure of sustainable development goals research and its implications, which can be interpreted in terms of knock-on effects.

## **DISCUSSION**

Antecedent budgeting exists in several literatures and the findings of various papers, as well as related to operational productivity variables in organizations. This influence is moderated by the Sustainable Development Goals principles that encourage organizations to consider the environmental and social impacts of their budget decisions.

The relationship between antecedent budgeting and sustainable development goals is reciprocal, and organizations that integrate sustainable development goals into their budget process have benefits for both the organization and society. Thus, it is important for organizations to consider aspects of sustainable development goals in their budget planning.

## **CONCLUSIONS AND RECOMMENDATIONS**

By integrating sustainable development goals into their budget process, businesses can create a more positive impact on the environment and society and ensure better financial accountability.

By adopting a more sustainable approach to budgeting and integrating the principles of the SDGs, businesses can contribute to sustainable development and achieve better operational productivity, while fulfilling their social responsibilities.

## **FURTHER STUDY**

The contribution of the results of this paper provides additional insight and convenience for other researchers to continue research with the same variables with research methods and using the object to be studied.

## **ACKNOWLEDGMENT**

For research institutions, it can provide real benefits and contributions from the collaboration of various researchers from various institutions.

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