



Education Financing Strategies: SWOT Analysis for Sustainable Strategy

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Abstrak

Penelitian ini bertujuan untuk menganalisis strategi pembiayaan pendidikan dengan menggunakan analisis SWOT (Strengths, Weaknesses, Opportunities, Threats) guna mengidentifikasi kekuatan, kelemahan, peluang, dan ancaman yang dihadapi oleh sekolah. Kekuatan utama yang ditemukan adalah adanya kantin dan koperasi sebagai sumber pendapatan internal, partisipasi karyawan dan siswa dalam pembiayaan sekolah, serta dukungan dari komite, orang tua, dan alumni. Kelemahan yang diidentifikasi meliputi keterbatasan sumber daya manusia dalam mengelola pembiayaan, biaya untuk lomba, pengadaan sarana dan prasarana, serta gaji guru dan tenaga honorer. Peluang yang dapat dimanfaatkan antara lain dana rutin dari pemerintah dan pemerintah daerah serta kontribusi dari komite dan alumni. Ancaman yang dihadapi termasuk keterlambatan pengadaan buku Kurikulum 2013 dan ketergantungan pada pengadaan tenaga PNS. Cara pemecahan masalah yang diusulkan adalah melalui strategi alternatif yang dirancang berdasarkan analisis SWOT. Strategi ini meliputi memanfaatkan kekuatan internal dan peluang eksternal untuk meningkatkan pendapatan sekolah, memperbaiki kelemahan internal melalui pelatihan dan manajemen yang lebih baik, serta mengatasi ancaman dengan mencari solusi alternatif yang lebih mandiri dan inovatif. Hasil penelitian menunjukkan bahwa dengan strategi yang tepat, sekolah dapat meningkatkan efektivitas pembiayaan pendidikan, memastikan penggunaan sumber daya yang optimal, dan mencapai tujuan pendidikan yang diinginkan. Penelitian ini juga menyoroti pentingnya perencanaan yang matang dan kolaborasi dengan berbagai pemangku kepentingan untuk memastikan keberlanjutan dan peningkatan mutu pendidikan di sekolah.

Kata Kunci: Pembiayaan Pendidikan, Analisis SWOT, Strategi Alternatif, Kualitas Pendidikan, Perencanaan Pendidikan.

Abstract

This study aims to analyze education financing strategies by using SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to identify the strengths, weaknesses, opportunities, and threats faced by schools. The main strengths found are the existence of canteens and cooperatives as sources of internal income, the participation of employees and students in school financing, and support from committees, parents, and alumni. The weaknesses identified include limited human resources in managing financing, costs for competitions, procurement of facilities and infrastructure, as well as salaries for teachers and honorary staff. Opportunities that can be used include regular funds from the government and local governments as well as contributions from committees and alumni. The threats faced include delays in the procurement of the 2013 Curriculum books and dependence on the procurement of civil servants. The proposed way of solving the problem is through an alternative strategy designed based on a SWOT analysis. This strategy includes leveraging internal strengths and external opportunities to increase school revenues, improving internal weaknesses through better training and management, and addressing threats by seeking more independent and innovative alternative solutions. The results of the study show that with the right strategy, schools can improve the effectiveness of education financing, ensure optimal use of resources, and achieve desired educational goals. This research also highlights the importance of careful planning and collaboration with various stakeholders to ensure sustainability and improve the quality of education in schools.

Keywords: Education Financing, SWOT Analysis, Alternative Strategies, Education Quality, Education Planning

Introduction

Financing plays an important role in the progress of Indonesian education, significantly impacting various aspects of the education

system (Rusina, 2022). Adequate funding is essential for the implementation of school programs, the procurement of facilities and infrastructure, and the payment of salaries of teachers and employees, all of which are essential

for achieving the school's vision and mission and improving the quality of education (Agusniati, 2022). The National Education Standards (SNP) in Indonesia emphasizes the importance of financing in meeting content standards, processes, standards for educators and education personnel, graduate competencies, and other important fields, thus making the direction of improving the quality of education more explicit (Abubakar et al., 2022). In addition, the active role of the government in providing financial support, such as implementing loan schemes for students, is crucial to increase educational participation and ensure inclusive education for all (Gunartin et al., 2020).

The quality of education is highly dependent on the amount of funds allocated, especially in the higher education sector, where sufficient financing is needed to support teacher education and other continuing education programs (Sumarto et al., 2018). Research shows that education financing has a significant effect on the quality of education, with one study showing a 91% influence proportion, highlighting the need for financial resources for the successful implementation of education initiatives and the creation of quality human resources (Agusniati, 2022). However, challenges such as imperfect supervision management techniques and obstacles faced by school principals in managing education financing need to be addressed to optimize the use of funds and achieve the desired educational outcomes (Abubakar et al., 2022).

Education financing theories and models include a range of approaches that integrate the roles of government and the private sector to create a sustainable system. Higher Education Sustainability First System is a conceptual model that emphasizes stakeholder collaboration to build innovative financial models and sustainability-focused student employment programs, especially benefiting developing countries with high youth unemployment rates (Son-Turan, 2021). A comprehensive literature review identifies five groups in sustainability funding: sustainability competencies, campus greening, co-creation and knowledge transfer, sustainability science, and sustainability in university courses and curricula, highlighting the interconnectedness of these dimensions in higher education (Montenegro de Lima et al., 2020). In China, empirical analysis shows that a co-financing system among all levels of government, with the central government setting

national standards, can promote equality in compulsory education (Yu & Ma, 2022).

Financing model e-learning, as developed for the Russian reality, balancing global demand and direct financing sources, emphasizing the need for transparency and efficiency in public and private investment (Nie et al., 2020). The theoretical framework also explores the political economy of education, examining how political decisions affect education spending and the impact of fiscal decentralization and Voucher Education in Public and Private Schools (Verger et al., 2017). The role of institutional investors is crucial in creating alternative sustainable funding for higher education, as proposed by Institutional Investor & Sustainable University Funding Governance Code, which aims to reduce the burden on governments and open market opportunities (Khan et al., 2022). In the UK, reforms in higher education funding are analyzed through a general equilibrium model that assesses the impact of shifting financial burdens from the government to students, affecting job-specific wages and job allocations (Brown & Souto-Otero, 2020).

The rational and political theories of education budgeting are criticized and restructured to better explain the declining management of resources in urban school systems, combining political, economic, and administrative concepts (Owings & Kaplan, 2019). The increasing involvement of private partners in public education presents new challenges and opportunities, as highlighted in discussions on education privatization (Yoon & Winton, 2020). Historical perspectives on education financing and government spending underscore the growing relationship between public funding and education outcomes (Jackson et al., 2021). Collectively, these theories and models illustrate the complex interplay between government policy, private sector involvement, and sustainable development goals in shaping an effective education financing system.

Education Financing Strategies in Indonesia require analysis Strengths, Weaknesses, Opportunities and Threats (SWOT) to develop sustainable solutions due to the diverse challenges and opportunities identified in various sectors. For example, the transition from donor-funded projects to self-financing systems, as seen in the immunization sector, highlights the need for robust financial planning and resource allocation to ensure continuity and effectiveness (Fonjungo et al., 2020). Similarly, the

sustainability of early childhood education center post-donor funding underscores the importance of strategic financial management, including the introduction of student fees and the real allocation of expenditures to sustain operations (Nakajima et al., 2021).

A SWOT analysis is a powerful tool for evaluating the education financing system by identifying its strengths, weaknesses, opportunities, and threats, thereby formulating an effective and sustainable strategy. For example, the Thailand School Lunch Program highlights the importance of forming networks between schools and communities to overcome budget constraints and improve the quality of lunches, showcasing proactive strategies for leveraging community resources (Srisangwan et al., 2023). Similarly, non-profit organizations in Europe have demonstrated the potential of non-formal education practices in schools and communities, emphasizing the need for adequate funding and volunteer management to support environmental education (Stylianou et al., 2023).

The APPNIE model, which is an extension of traditional SWOT analysis, provides a dynamic framework for evaluating management quality and environmental factors, thus enabling effective educational decision-making (Cusi et al., 2024). E-learning in India, driven by digital initiatives, underscores the role of technology in enhancing skills development and the need for a robust digital infrastructure to support educational goals (A. Safonov et al., 2021). The marketing strategy of train ticket companies in Indonesia, which utilizes SWOT analysis to optimize strengths and opportunities, can be tailored to improve education financing by maintaining service quality and offering promotional incentives (Handoko & Irawan, 2023).

The use of SWOT analysis by Nurul Islam Vocational School to attract students by offering affordable cost and quality education highlights the importance of internal and external resource assessment in educational institutions (Yaqin et al., 2023). By synthesizing these diverse case studies, it becomes clear that a comprehensive SWOT analysis can guide the development of more efficient and effective education financing strategies, ensuring sustainability and adaptability in various educational contexts.

SWOT analysis helps in identifying internal strengths and weaknesses, such as institutional commitment and human resource

capabilities, which are crucial for implementing sustainability in higher education institutions (HEIs) (Budihardjo et al., 2021). In addition, external opportunities and threats, such as government support, business investment, and cultural factors, play an important role in shaping sustainable development projects, as evidenced by the Likupang SEZ project (Arifuddin et al., 2023). The analysis also aids in recognizing the socio-political dynamics and potential conflicts that can arise from foreign-sponsored development projects, ensuring that sustainability efforts are socially inclusive and politically viable (Wijaya, 2022). By systematically evaluating these factors, the SWOT analysis provides a comprehensive framework for developing strategic and sustainable solutions that can adapt to the changing financial landscape and ensure long-term success in Indonesia's education sector.

Method

This study uses SWOT analysis with IFE analysis (Internal Factor Evaluation) and EFE (External Factor Evaluation) used to find out the internal and external conditions of a company and formulated into a detailed strategy (Moghaddaszadeh et al., 2015). SWOT is one of the analysis techniques that can be used to determine strategies that can help companies/institutions, including schools, in improving quality (Chisag & Tabuena, 2022). SWOT is a strategic planning method used to evaluate strengths (strengths)debilitation (weaknesses)chance Opportunities, and threats (threats) in a project or a business speculation (Jang et al., 2014). In addition, a SWOT analysis is the systematic identification of various factors from various systematic factors to formulate a company's strategy.

The factors in question are internal (strengths and weaknesses), external factors (opportunities and threats). Strengths can be interpreted as everything that the school has and supports the school's vision, mission, and goals. Weaknesses are the things that are the school's weaknesses, for example poor employee performance. Opportunities are opportunities that come from outside the school and can be used to achieve the school's vision, mission, and goals. Threats/obstacles are things that can threaten/hinder school achievement, for example, the emergence of new superior competitors. In more detail, the strategies that can be generated

from the SWOT analysis are explained in the following table:

Table 1. SWOT analysis strategy

IFA/EFA	Strengths (S)	Weakness (W)
Opportunities (O)	SO Strategy: Create strategies that use power to capitalize on opportunities. Used if the company/institution is in quadrant I	WO Strategy: Create a strategy that minimizes weaknesses to take advantage of opportunities. Used if the company/institution is in quadrant III
	ST Strategy: Create strategies that use force to address threats. Used if the company/institution is in quadrant II	WT Strategy: Create strategies that minimize weaknesses and avoid threats. Used if the company/institution is in quadrant IV
Threats (T)		

Result and Discussion

Analysis of Internal and External Factors of Education Financing

To optimize resource allocation and achieve strategic goals, organizations must conduct careful planning and define strategies appropriately. This includes selecting accurate, balanced, integrated, and aligned performance measures to evaluate the effectiveness of the implemented strategy. SWOT analysis is becoming a relevant tool in this process, allowing schools to identify strengths and opportunities that can be leveraged to improve the quality of education. On the other hand, this analysis also helps in formulating strategies to overcome the weaknesses and threats faced.

Economic development plays an important role in meeting people's demand for education, considering that education requires significant costs. This implies that every effort to improve the quality of education, both through programs and activities, requires adequate allocation of funds. Without sufficient funding, the implementation of educational programs will be hampered, so that educational goals will not be achieved. This argument is reinforced by the fact that education funding or financing is a key

element that allows the implementation of all educational programs in institutions or schools.

In this context, a SWOT analysis on school financing can provide in-depth insights into how schools can optimize their financial resources. For example, by leveraging strengths such as community support and existing facilities, as well as opportunities from government programs or partnerships with the private sector, schools can develop better educational programs. Instead, schools also need to devise strategies to address weaknesses such as budget constraints and the threat of economic instability that could affect funding sources. With this approach, schools can ensure that they not only survive, but also thrive in a dynamic and competitive environment.

Several internal and external factors of education financing are identified for the strengths and weaknesses of education financing. Internal sources of income include canteens and cooperatives, which can be used for various school needs. The participation of non-managerial employees in financing management can be a strength if it is managed transparently. Student participation in school financing can be a disadvantage if students feel financially burdened. The number of human resources managing school financing is a strength, but a lack of human resources or poor quality can hinder effective financial management. Competition can improve the school's achievement and reputation, but if it is not managed properly, it can cause the allocation of funds for other needs to be uneven.

Investment in adequate facilities and infrastructure can improve the learning environment, but limited funds can reduce the quality of education. Competitive salaries for teachers and honorary staff can attract and retain qualified educators, but if not balanced with other incomes, this can put a strain on school budgets. External factors include funding from the government and local governments, voluntary contributions from committees and parents, alumni contributions, the role of the government in the recruitment of civil servants, delays from the government and book publishers, and honorarium for honorary teachers. A comprehensive and sustainable financing strategy can help schools leverage their strengths and address existing weaknesses.

Table 2. Internal and External Factors of Education Financing

No.	Internal Factors (Strengths and Weaknesses)	Weight	Rating	Value
S1	The school has a canteen and a cooperative as another source of internal income.	0,15	4	0,60
S2	Employee (not manager) participation in financing management	0,10	3	0,30

S3	Student participation in school financing	0,05	3	0,15
W1	Number of human resources who manage school financing	0,10	2	0,20
W2	Financing for the race	0,10	2	0,20
W3	Financing for the procurement/repair of school facilities and infrastructure	0,10	2	0,20
W4	Fees for teachers' salaries	0,10	2	0,20
Total				1,85
No.	External Factors (Opportunities and Threats)	Weight	Rating	Value
O1	Regular funds from the Government and Local Governments	0,20	4	0,8
O2	Committee and parent roles (e.g. volunteering)	0,15	3	0,45
O3	Contributions / assistance from alumni	0,10	3	0,30
T1	The role of the government in the procurement of civil servants	0,15	2	0,30
	Delay in government and book publishers realizing the procurement of			
T2	Curriculum books	0,10	2	0,20
T3	Honor for teachers/honorary staff	0,10	2	0,20
Total				2,25

The results of this SWOT analysis show that schools have several strengths that can be optimized to overcome existing weaknesses and threats. The existence of canteens and cooperatives as a source of internal income, as well as the participation of employees and students in school financing, provide a strong foundation for internal financing. However, there needs to be an improvement in human resource management and fund allocation for various school needs.

Opportunities from regular government funds and support from committees/parents and alumni must be well utilized. Schools need to build good relationships with these stakeholders to ensure ongoing financial support. On the other hand, schools must be proactive in overcoming existing threats, such as delays in the procurement of books and dependence on the procurement of civil servants, by looking for alternative solutions that are more independent and innovative.

The existence of canteens and cooperatives as a significant source of internal income must be managed properly to ensure the continuity and increase of their contribution to school financing. Professional and transparent management in canteen and cooperative operations will increase efficiency and revenue. Additionally, schools can explore different ways to increase employee and student participation in school financing. For example, by holding programs or activities that involve students and employees more actively, either in the form of extracurricular activities or school projects that generate income.

Overcoming weaknesses in the number and quality of human resources who manage school financing is a crucial step. Schools can hold training courses and workshops to improve the

financial management skills of staff. In addition, recruiting or engaging more experts in the field of finance will help in creating a more effective and efficient management system. With better management, the allocation of funds for various needs, such as competitions, infrastructure improvements, and salaries of teachers/honorary staff, can be carried out more optimally.

Opportunities from regular government funds must be optimized by ensuring compliance with various regulations and requirements set by the government to obtain such funds. Schools need to build good communication with the government and actively submit proposals or programs that require financial support. In addition, the role of the committee and parents in providing voluntary funds must also be well organized. Holding regular meetings with committees and parents for transparency and reporting on the use of funds will increase their trust and participation.

Contributions and assistance from alumni are also a great opportunity. Schools can build a strong alumni network by holding reunions, award events, or mentoring programs involving alumni. Successful alumni can be a source of inspiration and also have the potential to provide financial assistance or other resources that can be used to improve the quality of education in schools.

To face threats such as the government's role in the procurement of civil servants and the delay in the procurement of curriculum books, schools must be more independent and innovative. For example, schools can look for alternatives to book procurement through collaboration with private publishers or utilizing digital technology by providing e-books. In terms of procurement of civil servants, schools can

collaborate with other educational institutions or hold internship programs for students who are studying in relevant fields to help school operations.

Honor for teachers and honorary staff also needs to be taken seriously. Schools can look for alternative solutions such as holding award programs or incentives for outstanding teachers. Additionally, seeking additional funding sources from donors or philanthropic institutions can help cover unmet salary needs.

Analysis of the SWOT Quadrant of Education Financing

Education financing is a critical aspect in the development and improvement of the education system. To better understand the strengths, weaknesses, opportunities, and threats faced in education financing, we used a SWOT analysis. This analysis helps in formulating effective strategies to improve the quality of education through better resource management. The following is a quadrant analysis diagram of the SWOT analysis of education financing:

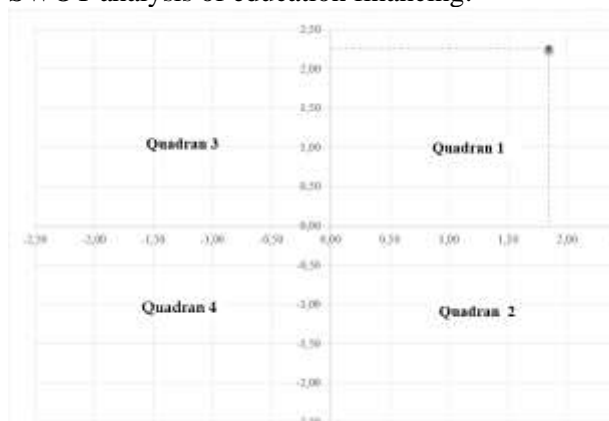


Figure 1. Education Financing SWOT Quadrant
Source: processed data

Figure 1 shows the results of the analysis of education financing, by dividing it into four quadrants: strengths and opportunities, weaknesses and opportunities, and threats. The first quadrant consists of internal strengths such as stable financial resources, strong government support, and good educational infrastructure, while the second quadrant includes internal weaknesses such as a lack of skilled educators, an inefficient management system, and limited facilities. Opportunities include developments in

educational technology, partnerships with the private sector, and policy reforms that support improved education.

The strategies in this quadrant focus on improving internal weaknesses to take advantage of external opportunities, such as adopting new technologies or training educators with training programs funded by partnerships with the private sector. The third quadrant includes internal forces but faces external threats, such as policy changes, competition with international educational institutions, and economic fluctuations. Strategies in this quadrant often use internal forces to counter or mitigate the impact of external threats, such as developing scholarship programs or strengthening alumni networks to support education funding.

The fourth quadrant includes internal weaknesses and external threats, such as inadequate infrastructure, poor financial management, and a lack of innovation in the curriculum. Threats include declining government funding, unfavorable changes in education policies, and stiff competition. Strategies in this quadrant often focus on survival and fixing internal weaknesses while addressing external threats, such as reforming financial management and finding alternative sources of funding. Thus, SWOT analysis helps identify the current strategic position of education financing and formulate strategies to increase strengths, improve weaknesses, take advantage of opportunities, and overcome threats.

Alternative Strategies in Education Financing Planning

In an effort to improve the effectiveness of education financing, SWOT analysis is used to identify the strengths, weaknesses, opportunities, and threats faced. Based on this analysis, alternative strategies can be formulated to maximize the existing potential and overcome various challenges. These strategies are designed to strengthen educational institutions, improve the efficiency of resource use, and create new opportunities that support long-term educational goals. The following is a table that summarizes the various alternative strategies that can be applied in education financing planning.

Table 3. Alternative Strategies in Education Financing Planning

	Strength(s):	Disadvantages (W):
IFA/EFE	<ul style="list-style-type: none"> The school has a canteen and a cooperative as another source of internal income. (S1) 	<ul style="list-style-type: none"> Number of human resources who manage school financing (W1) Financing for the race (W2)

	<ul style="list-style-type: none"> Employee (non-manager) participation in financing management (S2) Student participation in school financing (S3) 	<ul style="list-style-type: none"> Financing for the procurement/repair of school facilities and infrastructure (W3) Fees for teachers/honorary staff salaries (W4)
Odds (O):	SO Strategy:	WO Strategy:
<ul style="list-style-type: none"> Regular funds from the Government and Local Governments (O1) Committee and parent roles (e.g. voluntary funding) (O2) Contribution/assistance from alumni (O3) 	<ul style="list-style-type: none"> Forming an alumni group to explore funds to improve quality (S2, O3). Adding sales variants needed by school residents (S1, O2, O3). 	<ul style="list-style-type: none"> Make a priority scale together with the committee related to the competitions that will be followed. (W2, O1) Communicate the needs of the school to the committee in order to improve the quality of education (W2,W3,W4, O2) Submit proposals to alumni to participate in competitions, provide school facilities and infrastructure, or salaries for teachers/honorary staff. (W4, W2, W3, O3)
Threat (T):	ST Strategy:	WT Strategy:
<ul style="list-style-type: none"> The role of the government in the procurement of civil servants (T1) Delay of the government and book publishers in realizing the procurement of Curriculum 2013 (K13) (T2) books Honor for teachers/honorary staff (T3) 	<ul style="list-style-type: none"> Optimizing the assistance of employees (not managers) in managing financing. Conducting training related to financing management for employees who are involved/seconded in managing finances (S1, T3) Submit a request for additional civil servants from the Government (S1, T3). 	<ul style="list-style-type: none"> Socialize how to take care of advice and infrastructure owned by schools (W3, T3).

Based on table 3, the results of the analysis show that schools have various strengths that can be optimized to overcome financing challenges. The school has canteens and cooperatives as other sources of internal income, the participation of non-management employees in financing management, and the participation of students in school financing. However, there are several weaknesses that need to be overcome, such as the limited number of human resources who manage school financing, financing for competitions, procurement and repair of school facilities and infrastructure, as well as the cost of salaries for teachers and honorary staff.

First, the SO (Strengths-Opportunities) Strategy: take advantage of the school's strengths by forming an alumni group to raise funds to improve the quality of education and increase sales variants in canteens and cooperatives needed by school residents. With regular funding from the government and local governments, as well as the role of committees and parents, schools can strengthen their financial resources.

Second, the WO (Weaknesses-Opportunities) Strategy: focuses on improving weaknesses by prioritizing the needs of the committee related to the competitions to be participated in and communicating the needs of schools to the committee to improve the quality of education. Submitting proposals to alumni to support competition financing, procurement of facilities and infrastructure, as well as salaries for teachers and honorary staff is also an important strategy.

Third, the ST (Strengths-Threats) Strategy: aims to optimize the assistance of non-management employees in managing financing and provide training related to financial management for the employees involved. In addition, schools can submit a request for additional civil servants from the government to overcome threats related to the government's role in the procurement of civil servants and honorarium for teachers and honorary staff.

Finally, the WT (Weaknesses-Threats) Strategy: includes socializing how to maintain facilities and infrastructure owned by schools to

reduce repair and maintenance costs. This step aims to ensure that despite the threat of delays in the procurement of books and honorarium for honorary staff, schools can still maintain the quality of their facilities.

Conclusion

The results of the SWOT analysis show that schools have several strengths that can be optimized to overcome the challenges of education financing. The main findings of this study are the identification of strengths such as the existence of canteens and cooperatives as internal sources of income, the participation of employees and students in financing, as well as opportunities from regular government funds and support from committees and alumni. On the other hand, weaknesses such as limited human resources in financing management, as well as threats such as dependence on the procurement of civil servants and delays in the procurement of books, require special attention to improvement strategies.

The implications of these findings suggest that a comprehensive and sustainable education

financing strategy is essential to improve the quality of education. Schools need to make the most of internal strengths and external opportunities, such as by forming alumni groups to support financing or increasing sales variants in canteens and cooperatives. In addition, schools must also overcome weaknesses and threats by improving human resource management, communicating school needs to committees and alumni, and looking for alternatives to procuring books and teaching staff who are more independent.

However, this study has several limitations that need to be considered. First, the SWOT analysis conducted may not cover all the internal and external factors that affect education financing. Second, the data used may not be completely representative or complete, so the results of the analysis may not be completely accurate. Therefore, further research with more comprehensive data and more in-depth methodologies is needed to ensure that the formulated education financing strategies can be implemented effectively and provide optimal results.

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