

# Strategies to Improve the Education and Research Scholarship Program at the Universities

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**Abstract** - Scholarships and research funding for colleges are channeled by non-profit organizations experiencing difficulties due to various situations. This research aimed to aid non-profit organizations in addressing economic and social challenges, enhance the funds earned, and maximize the use of existing frameworks and processes. The AHP method obtained priority weights to improve organizations' operational and financial performance. From the calculation results, the clarity of the vision and mission of the organization is a significant organizational proposition value as a consideration for making a strategy. Meanwhile, BMC was validated, and the outcomes were referred to as SWOT and AHP results.

**Keywords** – AHP, business model canvas, digital transformation, non-profit organization, SWOT.

## 1. Introduction

Non-profit organizations play a vital role in maintaining a healthy and prosperous community. They provide essential services to their community residents and contribute to the growth of local economies by directly impacting the people [1].

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DOI: 10.18421/TEM121-48

<https://doi.org/10.18421/TEM121-48>

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*Received:* 05 October 2022.

*Revised:* 19 December 2022.

*Accepted:* 24 December 2022.

*Published:* 27 February 2023.

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The objective is to build a shared vision and mission among its stakeholders and society [2].

The outbreak of COVID-19 significantly impacted the lives and well-being of many people around the globe. Non-profit organizations can minimize the effects of the disease by implementing effective strategies and procedures. These include improving the operational processes of their organizations, exploring partnerships for digitization, and increasing their focus on innovation [3].

Due to the economic crisis, many donors have decreased their donations to non-profit organizations. The need for more donors has become complicated since many organizations rely on formal institutions for funding. According to the research, there are various problems that non-profit organizations face regarding management, transparency, and independence. Non-profit organizations cannot continue operations without increasing the value of their controlled assets over time. Other factors, such as public relations, are also considered when managing non-profit organizations.

This research aims to identify the various factors affecting the operations of non-profit organizations. The availability of funds and the cost of doing business, the difficulties in getting new donors, retaining old donations, and the lack of effective management of these organizations can be attributed to various factors. In particular, this research explores non-profit organizations' performance to have a more effective business model. It provides recommendations to improve business process management through a Business Model Canvas (BMC) design.

## 2. Literature Review

The literature review will discuss the concept, competition, and new era in current non-profit organizations confirmed and validated by several experts. The literature review is the basis for formulating hypotheses for SWOT analysis and AHP calculations to produce an appropriate organizational

strategy. The resulting strategy will form a framework for Business Model Canvas and digital transformation, which is essential in the competition between similar organizations today.

### **2.1. Non-Profit Organization Concept**

Non-profit organizations are businesses that allow individuals to make money but not distribute it to their shareholders. These types of organizations are tax-free when they receive this status from the government. Non-profits are referred to as charitable organizations. Furthermore, these organizations meet the conditions of being able to claim tax deductions. The organizations are allowed to keep a portion of their revenue, even though they are prohibited from sharing the proceeds with their members. These organizations are usually active in the services industry [4]. Most religious organizations give a significant portion of their donations to education. Furthermore, education is considered the second-largest giving category among religious organizations.

### **2.2. Competitions in Non-Profit Organizations**

In addition to their dependency on external parties for funding, an issue for non-profit organizations is rivalry among groups with similar missions. Donors can select their donation target with a few things in mind. Quality is essential in improving a non-profit organization's performance, efficiency, and effectiveness. In a non-profit environment, it is an endeavor to enhance all areas of the organization's operations, not only the quality of the services offered [5].

There is pressure from stakeholders for non-profit organizations to operate efficiently and show a contribution to society by adding value to their programs [6]. Furthermore, the impact of COVID-19 on lives is staggering, and non-profits are not immune to the disruption. In order to reduce the effects of uncertainty due to the pandemic, non-profit organizations can implement strategies to transform the operational process, become more agile, focused, and innovative, and explore partnerships for resource sharing and digitization [3]. This condition becomes more complex than before when many donors, specifically from formal institutions, have reduced their donations due to the economic crisis. Competition among non-profit organizations is also becoming more challenging due to limited budgets from donors.

Apart from the way of donating that goes towards modern technology, the scholarship products awarded to beneficiaries today are also increasingly varied to meet existing competition and demand. The

provision of research scholarships is the development of assistance products that can be distributed apart from conventional educational expenses assistance.

### **2.3. A New Era of Education Scholarship and Research Program**

Digital transformation is changing how non-profits manage their relationships with stakeholders when leveraging resources, striving to achieve a mission, or advocating for social support, including organizations providing educational and research scholarships at universities.

Online interactions are becoming more critical for non-profit organizations as they seek to build stronger relationships with their stakeholders. More tools and channels are also available to manage their relationships with partners. Besides using online platforms for fundraising, non-profit organizations also use offline channels. They prefer to use phone requests and face-to-face meetings to raise funds for a specific amount.

On the other hand, they prefer to meet with individuals to ask for large donations. The combination of offline and online fundraising helps non-profit organizations meet their goals. The internet cannot replace offline channels despite its benefits. They can still strengthen the vitality and sustainability of non-profit organizations by participating in social activities [7].

## **3. Research Method**

The method starts with a SWOT analysis, followed by the AHP calculations and the BMC concept creation. The sub-criteria utilized as survey questions were taken from multiple works of literature, as confirmed by experts.

### **3.1. SWOT Analysis**

SWOT analysis uses different ways to plan and develop strategies and analyze and organize various sources of information. The three internal factors are effectiveness, relevance, and synthesis. They summarize various internal strategic factors to create a more effective and efficient company [8]. SWOT analysis is often employed exclusively during the operational environmental stage of the strategic planning process [9].

In its development, the concept of SWOT is instrumental in helping organizations identify and analyze the different factors influencing the growth and development of their performance. The analysis is a process that involves identifying and developing a strategy for a company. The primary steps are strategy determination and SWOT identification

[10]. Furthermore, the identification consists of an organization's various internal strengths and weaknesses. The SWOT matrix can help organizations identify external threats and opportunities by describing their strategies and tactics [11].

### 3.2. Analytic Hierarchy Process (AHP)

The AHP framework can help organizations develop and implement effective decision-making strategies. This framework includes various tools and techniques to evaluate and manage their options [12]. The AHP method focuses on the three main principles of hierarchy construction. It involves setting priorities, consistency measurement, and the construction of the hierarchy.

The analytic hierarchy process aims to solve complex situations hierarchically involving multiple variables. This principle breaks down a complex system into three upper, middle, and lower hierarchies. It considers each variable's relative importance and then prioritizes the most influence over the outcome. The decision-making process in an AHP is comparing the alternatives using a paired questionnaire. The objective of the survey is to gather information from the decision-making participants on the organization's objectives.

### 3.3. Business Model Canvas (BMC)

Swiss economists Alexander Osterwalder and Yves Pigneur created the Business Model Canvas (BMC) in 2005. This canvas explains a business model framework and how to apply it as a basis for innovating and rejuvenating strategically focused and value-based relationships and programs. Innovation in a business model is characterized by creating, delivering, and capturing value for businesses, customers, and society.

A business model can help social organizations communicate their strategies and features [13], [14]. The building blocks were added to the original nine blocks, including the various organizational components related to the business model. These include the social and environmental costs associated with the business model and the positive impacts on the environment [13].

## 4. Results and Discussion

From the data processing, each factor has several dominant components or strong influences on these factors. The four elements of SWOT can be integrated to form a strategy that helps businesses deal with external threats while capitalizing on their internal strengths and potential.

### 4.1. SWOT Analysis Calculation Results Using AHP Method

The SWOT assessment with AHP expert confirmation used an online questionnaire of five experts' confirmation results. An Expert Choice application can calculate each criterion's weight and alternative easily and quickly.

The inconsistency index of each pairing comparison matrix can be instantly known. Expert Choice software can directly synthesize results with alternative options and sensitivity analysis.

Sensitivity analysis is to simulate one of the criteria of the SWOT component into the factor with the highest weight and then analyze the impact on other sub-criteria. The sensitivity analysis results will show the weight consistency of one sub-criterion in other conditions.

The hierarchy of decisions, with the calculation of weights, can be seen in Figure 1. The symbols L and G mean the local weight against the level and the global weight to the goal.

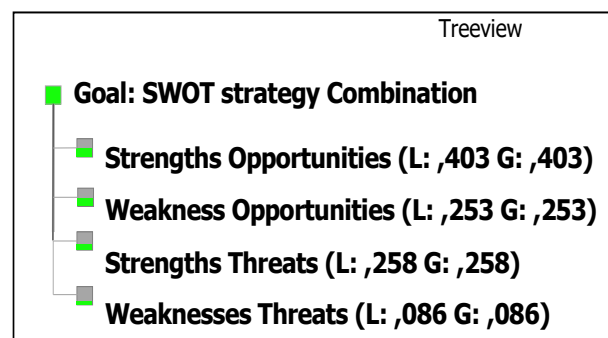


Figure 1. SWOT Priority Strategy Result Using Expert Choice

Based on the decision hierarchy, the order of importance of each element from the aspect of level and weight value is on the symbol L, which indicates their level of importance. AHP method weighting results in a plan comprised of strengths and opportunities. The calculation shows that the combination of strengths criteria with opportunities has the highest local and global weight. The combination of the criteria of strengths with opportunities is commonly referred to as the "maxi-maxi" or aggressive strategy.

In order to meet the research objectives, namely filling the needs of implementing a business model for the development of non-profit organization management, the results include essential aspects that need to be considered in improving the process and management. In the form of a transparent organizational vision and mission, product diversification and exploring programs are needed for the organization's operational performance.

The aggressive strategy of the SWOT analysis results in a new target of expansion of donation receipts and distribution compared to previous conditions.

Local and global weights of all factors from the calculation of the Expert Choice application can be seen in Table 1 below.

Table 1. AHP Matrix – SWOT Expert Confirmation Results

Criteria	Sub Criteria	AHP Weight		
		Rank	Local	Global
Strengths	Clarity of the vision and mission of the organization	1	0.304	0.149
	The organizations have a good (noble) cause	5	0.167	0.082
	Awardee development program	8	0.123	0.060
	Participation and good relations with the community	6	0.154	0.075
	Strong support from alums	2	0.253	0.124
Weaknesses	Programs have not yet been explored	11	0.459	0.031
	The fundraising strategy is still lacking	16	0.154	0.010
	Network limitations	18	0.115	0.008
	The uneven involvement of all administrators has not been evenly distributed	14	0.168	0.011
	Have not reached a wide scope	20	0.104	0.007
Opportunities	The possibility of diversification of the organization’s products	3	0.281	0.110
	Significant volunteer potential	9	0.139	0.054
	Collaboration with other organizations	7	0.163	0.063
	Contributions from community	4	0.226	0.088
	Joining a new board	10	0.069	0.048
	Contact with alums abroad	12	0.122	0.027
Threats	Additional resources are hard to come by	17	0.164	0.009
	The community does not support	15	0.203	0.011
	Donors stop donations	13	0.377	0.020
	Low awardee commitment	19	0.154	0.008
	Fierce competition	21	0.101	0.005

According to Table 1, the three factors that obtain the most weight are clarity of vision and mission of the organization, strong support from alums and faculty, and the possibility of diversification of the products. Meanwhile, the objective strategy that obtains the most weight is strength. The strategy with the highest priority for developing the performance

of non-profit organizations providing scholarships is the Strengths and Opportunities.

**4.2. SWOT-AHP Strategy for BMC Drafting**

Table 2 demonstrates the components non-profit organizations should include when developing a BMC framework.

Table 2. Components of the BMC Non-Profit Organization

BMC Components	Description
Customer/Donors Segments	Faculty/University, society, donors, awardees (beneficiaries), alums
Value Proposition	Community development (students), goodwill, education, student needs, including counseling, volunteer and donor engagement
Relationships	Collaboration and cooperation, voluntary, community and individual, high loyalty, short and long-term relationships
Channels	Website and social media, physical facilities (the existence of cottages or dormitories for scholarship students), correspondence in the form of direct letters and emails, events and scheduled activities, in-house visits in the form of visits to the office or home
Key Activities	Creation of donation targets, Implementation of short, medium, and long-term fundraising strategies, co-branding with institutions, fundraising activities, expansion of the network, and coverage to get new donors
Key Resources	The management’s potential assets are intellectual, experience and networking, a large number of alums, relationships, and support from faculties and universities, management of endowment funds, cooperation with external parties
Key Partners	Philanthropic institutions, university alums organizations, faculties and departments, university management, faculties and departments, alums, society

BMC Components	Description
Income	Donation system, cooperation or partnership, Corporate Social Responsibility (CSR), sponsorship
Cost Expenditure	Operational costs, taxes from business units, development of awardee programs, training, development of funds

This research also asked several questions related to the business model canvas component, specifically the factors influencing the decision to make donations [15], confirmed with AHP processing and consistency ratio of < 0.1.

#### 4.3. Digital Transformations for Non-Profit Organizations

One critical aspect that distinguishes and adds value for non-profit organizations that carry out fundraising activities is the application of technology that allows donors to monitor the funds they donate and access the organization's financial statements in a transparent and timely manner.

Digital transformation is a core strategy for non-profit organizations to compete and survive in a competitive environment. The need for digitization is essential but not the primary strategy in the context of this research. However, it can be very challenging to implement and manage various initiatives related to this process. The cultural changes required to transform organizations are technological and operational. This research assists non-profit organizations in identifying and implementing effective strategies to capitalize on digital transformation opportunities [1].

The organization also needs to harness mobile platforms' potential to raise funds and communicate with donors. In addition to text messages, people prefer donating to charity through smartphones [4]. There are many concepts about how to donate and factors influencing fundraising efforts to provide services to the needy [16].

The digital readiness assessment identifies areas of weakness and opportunities in the strategy. Furthermore, it determines the various factors that can affect its operations, with an average value being donor and volunteer engagement, empowering the organization's employees or staff, optimizing processes and operations, and innovating to make an impact.

One of the benefits of this mobile application is the availability of a menu of report options for donors. Transparency and accuracy of reports are donor expectations generated from this mobile application. The resulting report is an organizational performance and donor's report to monitor the number of donations and how the funds are distributed to scholarship recipients.

#### 4.4. Key Strategies for Improving Non-Profit Organizations

The SWOT component with the highest local score for each factor explains the internal and external factors of the organization used as a strategy.

The references are, 1. Internal factors of the strengths and weaknesses component use resource-based view in the form of clarity of vision and mission as well as the need to explore the development of the organization's program or product. These two variables are essential in winning the competition with the product's or program's competitive advantage. 2. External factors of the opportunities and threats component are used for product diversification and donors to stop donations. Product diversification opportunities align with the weaknesses, such as several programs that have not been explored. Therefore, product development and organizational programs are essential variables to be developed.

Clarity of the organization's vision and mission is an essential aspect of local and global weight strength factors. Managing and maintaining clarity will consistently increase the trust of stakeholders and become a critical factor in determining the success and the failure of donations or scholarships. Similarly, the strength criteria of the organization are noble, and the ineffectiveness of fundraising are essential factors for determining the success of donation distribution activities in non-profit organizations.

#### 5. Conclusions and Implications

The impact of the economic crisis because of the COVID-19 outbreak has caused institutions or companies to cut a lot of CSR budget allocations, as well as individual donors who reduced their donations.

Managing a non-profit organization like a conventional profit-based organization requires an operational and financial strategy to win against the competition among similar organizations. Based on research conducted on non-profit scholarship organizations, we can conclude that every organization needs to have a strategy by considering the internal conditions of the organization, challenges, and external opportunities. This research uses the SWOT-Analytical Hierarchy Process (AHP) and Business Model Canvas (BMC) analysis

methods, and a strategy can be produced to improve organizational performance and development.

SWOT analysis - AHP uses four criteria with 21 sub-criteria to obtain important sub-criteria of each SWOT criterion resulting in an aggressive growth strategy. The strengths criterion, namely the sub-criterion of "clarity of the organization's vision and mission," has the highest weight consistently among other sub-criteria.

The linear donor expectations survey results with expert confirmation results are the need to develop digital transformation, make product diversification and explore existing programs. Transparency, track record of the organization, and clarity of vision and mission are essential aspects that a prospective donor considers deciding to donate, or an institution opens up opportunities for cooperation.

This study's implementation strategy is to improve business processes in the form of Business Model Canvas and mobile applications that can be used as a medium for registration, distribution of donation funds, and transparent reports as an output of the digital transformation. This research's mobile applications can help to distribute assistance, broader social sector cooperation, collaborate with other philanthropic institutions to reach the circle, and provide more significant benefits.

The novelty of the knowledge gained from this study is that there is a strategy that can be used by non-profit organizations providing scholarships using the Business Model Canvas, which allows a non-profit organization to obtain higher income from donations and distribution funds.

The novelty of the operational process in the organization is the implementation of digital transformation that produces new organizational targets, missions, and objectives while still considering the services and needs of stakeholders.

The limitation of the research is that it only uses data from limited organizations; it needs to be validated using more in-depth objects and studies from various aspects and contexts.

Future research needs to explore similar research on non-profit organizations with a focus on other areas, deepening accurate and effective fundraising strategies for non-profit organizations, especially those engaged in providing educational scholarships in higher education.

#### Acknowledgements

*This research was funded by PUTI Universitas Indonesia 2022.*

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