



How to cite this article:

Afifah, Y., Khairiyah K., & Ma'arif, M. S. (2025). Innovative digital platform: An integrated information centre for scholarship ISSMA-GO. *Journal of Technology and Operations Management*, 20 (2), 62-73. <https://doi.org/10.32890/jtom2025.20.2.5>

INNOVATIVE DIGITAL PLATFORM: AN INTEGRATED INFORMATION CENTRE FOR SCHOLARSHIP IISMA-GO

¹Yuyun Afifah, ²Khairiyah Kamilah, ³M. Syamsul Ma'arif

^{1, 2, 3} School of Business, IPB University

¹*Corresponding Author: khairiyah-kamilah@apps.ipb.ac.id*

Received: 3/2/2025

Revised: 27/6/2025

Accepted: 8/7/2025

Published: 31/7/2025

ABSTRACT

The number of applicants for the Indonesian International Student Mobility Awards (IISMA) rises annually, intensifying the competition. This study aims to (1) identify challenges faced by potential IISMA scholarship candidates, (2) propose solutions to address program registration preparation issues, (3) develop a business model for program registration readiness, and (4) design a prototype for program registration preparation. Employing the design thinking approach, this research addresses the issues faced by aspiring IISMA scholarship applicants, including limited integrated information, struggles to acquire comprehensive guidance and mentorship, as well as difficulties concerning language exams, essay composition, and interviews. The solutions are structured as a digital, web-based business model named "IISMA-go", encompassing segments such as registration priming, mentor consultations, discussion forums, registration guidelines, informative articles, and essential resources for students. The overall results of the USE Questionnaire indicate that IISMA-go scored 4.37 or 87.4%, signifying that this solution is highly suitable for further development as a preparation solution for IISMA scholarship registration.

Keywords: design thinking approach, IISMA, scholarships candidate's challenge, solution for registration preparation

INTRODUCTION

Background

Education is an important aspect of human life. This aspect makes every Indonesian citizen have the right and obligation to pursue education. Article 21 paragraph 1-2 of the 1945 Constitution states that (1) every citizen has the right to education, (2) every citizen is obliged to attend basic education and the government is obliged to finance it. Education is the basic material and foundation for achieving the ideals of progress of a nation (Pemerintah Republik Indonesia. (n.d.), 1945). The increasing level of education quality of a country's population will result in significant changes in the country's progress (Lin et al., 2025). To achieve the state's goal of making the nation's life smarter as stated in the 4th paragraph of the Preamble to the 1945 Constitution, spending on basic Indonesian education services reaches 20% of the percentage of total government spending (Kementerian Keuangan Republik Indonesia., 2023). This effort continues to be made by the Indonesian government to improve the quality and quality of education in the various pathways, types and levels of education implemented. As globalization continues to develop, Indonesian students can now study anywhere without any regional restrictions. This is a golden opportunity for them to study outside Indonesia, namely abroad. According to the UNESCO Institute for Statistics (2023), there was an increase in the number of Indonesian students studying abroad in 2017-2020, decreasing in 2021-2022, and increasing again in 2023. In 2023, there were 55,961 Indonesian students studying education abroad with a percentage of 9% of the world's student population studying outside their home country (The Jakarta Post, 2023).

According to (Wilczewski & Alon, 2023), the overseas study process can improve foreign language communication skills, expand knowledge, culture, new perspectives and experiences, improve the quality of educational progress, increase adaptability and self-confidence as well as broader relationships. Based on previous research, it is known that the majority of students who study abroad gain successful experiences that lead to increased self-confidence (L. Peng et al., 2025). This is in line with (Reibenspiess et al., 2022), that the experience of studying abroad provides significant positive changes such as hard skills, soft skills and interpersonal skills from the aspects of academic and cultural experience. However, the cost required to carry out studies abroad is an important consideration for continuing to study abroad. For example, registration fees, university tuition fees, accommodation and transportation costs, insurance costs, living costs while abroad and unexpected costs that need to be prepared. The large number of costs that must be incurred makes students choose the scholarship route to finance education both from within and outside the country (Singh et al., 2023). There are various kinds of scholarships to make your dream of studying abroad come true. Funding provided by the Education Fund Management Institute (LPDP) is the most supportive scholarship for studying abroad (Okorie et al., 2023). This institution is a non-echelon work unit within the Ministry of Finance. LPDP is also a Public Service Agency (BLU) whose function is to manage the Education Endowment Fund (DAP) according to Article 1 point 4 of Presidential Regulation Number 12 of 2019. Apart from that, LPDP also provides support for the government's vision, namely in creating superior human resources for progress of the Indonesian state through a program providing scholarship services (McDermott et al., 2025).

One form of implementation program for providing scholarship services, LPDP collaborates with the Ministry of Education, Culture, Research and Technology in the International Mobility Program. This program is known as the Indonesian International Student Mobility Awards (IISMA) in 2021. The aim of the IISMA program is to build a good name and image for Indonesia in the eyes of the world through cultural promotion activities as well as improving the quality of Indonesian education (Margono et al., 2024). IISMA is a scholarship provided by the Ministry of Education, Culture, Research and Technology for Indonesian students for a one-semester international mobility program abroad. There are two types of funding categories in providing IISMA scholarships, namely undergraduate and vocational students. This scholarship provides full funding which includes registration and education fees, arrival and living costs, visa and flight accommodation costs, PCR, quarantine, health insurance,

emergency costs. According to data in 2022, there have been 2145 alumni receiving IISMA undergraduate scholarships and 409 vocational recipients in various countries (Dawya & Okvitawanli, 2024).

The number of applicants for the Indonesian International Student Mobility Awards (IISMA) program continues to increase from 2021 to 2023. In the first year of the opening of the IISMA program in 2021, the number of applicants was 2,551 participants with the number of participants accepted being 970, the number of tightness was at 38% (Zidani & Sudarwati, 2023). The increase occurred in the second year of opening program registration by 294.002%. The total number of applicants for the IISMA scholarship in 2022 is 7501 applicants, the number of participants who passed the selection was 1,155 participants with a strictness of 15.39%. In 2022, there will be IISMA vocational pathway (IISMAVO) with a total of 1,209 registrants, the number of those passing the selection is 409, the number of stringencies is 33.82% (L. Peng et al., 2025). In 2023 the number of IISMA registrants will increase to 10,496 undergraduate students, the number of those passing the selection will be as many as 1,132, the number of tightness reached 10.78%. Meanwhile for IISMAVO, the number of registrants was 2,208 participants, the number of participants passing the selection was 560, the level of rigor was 25.36% (Pemerintah Republik Indonesia. (n.d.), 1945). The following is a graph of the increase in the number of applicants for the IISMA scholarship program in 2021-2023.

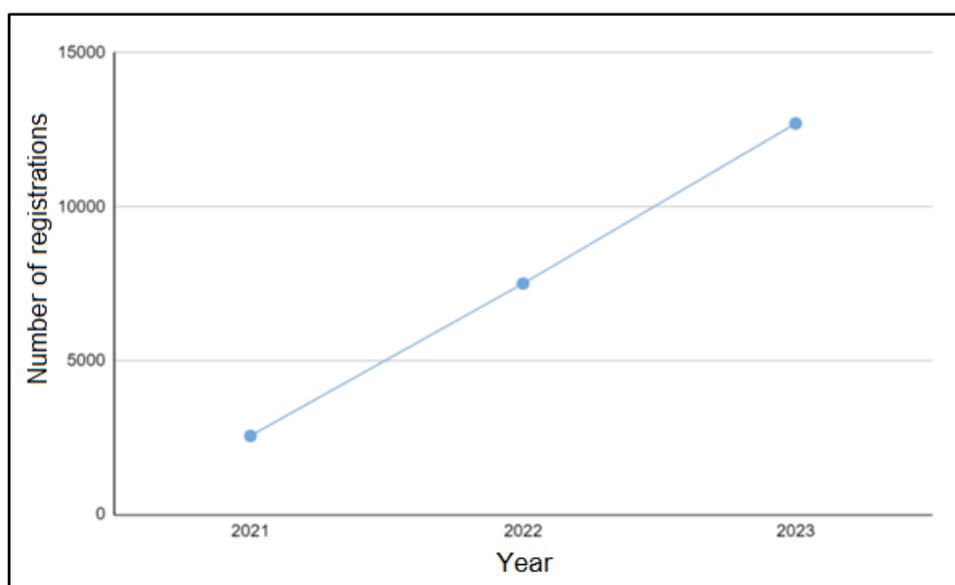


Figure 1

The increasing number of IISMA applicants

The increasing number of applicants for the Indonesian International Student Mobility Awards (IISMA) program increases the intensity of competition between program applicants. This of course requires prospective scholarship recipients to prepare themselves carefully. Based on the results of the pre-research survey, there were various problems faced when participating in the program selection and registration process. This includes preparation for filing documents, selecting a destination university, writing scholarship essays, preparing for language tests, and certain requirements from the destination university, as well as sudden information notification issues. Students experience problems adjusting to the academic system that uses the European Credit Transfer and Accumulation System (ECTS) and mingling with people from different backgrounds, cultures and languages (Dawya & Okvitawanli, 2024). According to (X. Peng & Dai, 2025), the biggest problem for prospective scholarship applicants is that the information needed to prepare for scholarship applications is not met. As many as 75.4% of

prospective scholarship applicants use the scholarship provider's website as a source of information to prepare for scholarship applications. As many as 61.9% of students said the importance of overseas study scholarships and the need for access to information regarding tips and tricks for becoming a scholarship recipient, facilities and requirements amounted to 58.5%.

Based on the problem description and background, research needs to be carried out to create a solution to the problem of prospective IISMA scholarship applicants to help plan and prepare prospective applicants who will apply for IISMA scholarships in the future. This solution will be developed using the concept of design thinking which consists of several stages, namely empathize, define, ideate, prototype and testing. At the problem definition stage, prospective consumers utilize the empathy map method as a form of visualization used to map the information that has been collected so that a solution design that is more relevant, valuable and satisfying is obtained. The advantage of this design thinking approach lies in its ability to encourage the emergence of innovative ideas when going through the stages of inspiration, idea and implementation so that the development and exploration of new solutions is easier to do. Therefore, it is necessary to develop a solution to the problems of prospective scholarship applicants in terms of planning IISMA scholarship registration so that it is easier and optimal.

METHODOLOGY

Data Collection

This research was conducted from March 2023 to August 2023. The data used in this research are primary data and secondary data. Primary data is the results of the questionnaire for prospective IISMA scholarship applicants. Secondary data is data on the number of applicants for the IISMA scholarship, data on the number of students studying abroad, and data on destinations of selected countries for study abroad sourced from the internet.

Primary data was collected through in-depth interviews using questionnaires distributed to respondents. The questionnaire consists of two types of questions, namely closed questions and open questions. Respondent identity questions consist of name, age, university location, gender, education level, expenses and type of device use. Open questions based on aspects of the empathy map such as hear, see, say and do, think and feel. The closed questions for the solution test consist of 30 questions with answer options on a Likert scale of 5 assessment scores, 1 indicates the respondent strongly disagrees with the statement to 5 means the respondent strongly agrees with the statement.

Respondents were selected using a non-probability sampling method in the form of a purposive sampling technique. The aim of choosing this method is to make the data obtained more representative by determining certain criteria. The criteria for research respondents were 18-23 years old, active students registered at domestic or private universities, planning/having previously participated in the IISMA scholarship program registration selection. Determining the number of respondents is based on the Roscoe method, namely the appropriate sample size for research is between 30 and 500 respondents.

Data Analysis Method

This research uses qualitative and quantitative analysis. Qualitative analysis focuses on understanding human behavior and views to find the problems faced by potential product consumers. The research tools used are empathy map and business model canvas with the aim of mapping the interview results to become the most appropriate business model. Data is obtained sequentially from the empathy map then the business model canvas which is processed and sorted until it is displayed in a radar graph of the solution test results. Quantitative analysis in the form of testing the research solution uses 5 Likert scale scores ranging from 1 to 5, 1 indicates that the respondent strongly disagrees with the statement

to 5 which means the respondent strongly agrees with the statement. The research stages were carried out based on five stages of design thinking, namely empathize, define, ideate, prototype, test, and improve.

RESULT AND DISCUSSION

Empathize Stage

In the empathize stage, activities were carried out to distribute questionnaires to prospective IISMA scholarship applicants. The criteria for respondents are 18-23 years old, an active student at a State University/Private University and have plans/have previously participated in the IISMA scholarship program registration selection. The questionnaire consists of two parts, the first part contains the identity of the respondent and the second part contains open questions. Open questions were created based on the aspects in the empathy map, namely see, hear, say and do, feel and think, pain and gain.

Based on the results, the identities of potential user respondents were classified according to gender, age, university location, education level, expenditure, and type of device use to search for IISMA scholarship information. The female gender is 74.5% and the male gender is 25.5%. The age range of 18-23 years was 46.9%, followed by 20-21 years at 44.8%, and 22-23 years at 8.16%. University locations are in West Java as much as 19.4%, East Java 16.3%, Central Java 13.3%, DKI Jakarta 9.2%, Yogyakarta 7.1%, and others as much as 34.6%. The highest level of education of respondents was second year at 38.8%, followed by first year 25.5%, third year 24.5%, and fourth year 11.2%. The expenditure of 49% of the total respondents was in the range of Rp. 1,000,001-Rp. 2,000,000, then 40.8% was in the range \leq Rp. 1,000,000, 8.2% was in the range of Rp. 2,000,001-Rp. 3,000,000 and 3.2% had expenditure \geq Rp. 3,000,001. The most common type of device used to search for information is mobile phones, 73.5%, followed by desktops, 21.4%, and tablets, 5.1%.

Based on research data, 73.4% of the total number of respondents experienced difficulty in searching for and finding information on preparation for IISMA scholarship registration. The majority of respondents experienced problems that were more or less the same as each other. According to the respondent with the initials HAN, the problem he experienced was limited information, the information needed was incomplete/only general. Furthermore, respondents with the initials GG experienced difficulties when preparing for language tests (IELTS), writing registration essays, and finding mentors who could help with the IISMA scholarship application preparation process. Meanwhile, the respondent with the initials CLS is actively preparing to learn English because he is afraid that his foreign language skills will not be sufficient to register for IISMA.

Define Stage

The define stage is mapping the data or information that has been obtained from research respondents. The total number of research respondents was 98 people. Mapping is done in two ways, namely star bursting and empathy map. The star bursting method consists of the 5W+1H aspects, namely who, what, when, where, why and how. Meanwhile, the empathy map consists of see, say and do, think and feel, and hear.

The results of mapping using the star bursting method are that the target users of the platform are active students from state universities or private universities aged 18-23 years and who are planning or have participated in the IISMA scholarship registration selection. The problem experienced by prospective scholarship applicants when searching for information is limited complete and integrated information because information sources are very numerous and scattered and do not display the expected detailed information such as university and course selection. Furthermore, respondents also felt confused about where to start their preparations because there were no partners, mentors or mentors to consult directly. Apart from that, prospective scholarship applicants also find it difficult to prepare for registration requirements such as writing essays, language tests and interviews. Research respondents obtained

scholarship information from various sources such as websites, social media, and community groups. Based on this description, respondents need a solution that can solve the problems experienced by prospective ISMA scholarship applicants.

The stage after star bursting is mapping using an empathy map. A visualization of the data mapping from the questionnaire results can be seen in Figure 1. An explanation of each aspect of the empathy map is as follows.

Think and Feel

The majority of respondents see IISMA as a great opportunity to realize their dream of studying abroad. This program gives them a sense of satisfaction and focus on studies without financial burden. The experience of studying internationally is considered valuable for expanding networks and understanding different cultures. However, the complex and rigorous registration process results in stress, worry, and hesitation.

Hear

Sources of information on preparation for IISMA registration come from various platforms, both official and unofficial. Respondents felt helped by various platforms such as the official IISMA website, social media, and personal connections such as friends and alumni. However, too many sources mean they have to visit different platforms.

See

Respondents really paid attention to the completeness, accuracy and ease of access to information provided by registration preparation media/platforms. Social media is a favorite because it provides complete, interactive, easy to understand and fun information through visual content.

Say and Do

Respondents researched information from various sources, recorded the information found, took part in socialization, joined groups, and prepared documents and English language skills in preparation for applying for the IISMA scholarship.

Pain

Prospective applicants face difficulties in obtaining accurate and complete information about selection requirements. Difficulties also arise in preparing English, writing essays, interviews, lack of mentor guidance, and financial constraints to fulfill requirements.

Gains

Respondents hope that there will be an integrated platform for preparing IISMA scholarship applications. They expect information in the form of tutorials, interactions, content, and an active community. Features such as Q&A, progress tracker, consultations, and tutors are expected to be present. Mentors from IISMA alumni are expected to help in preparation for registration.

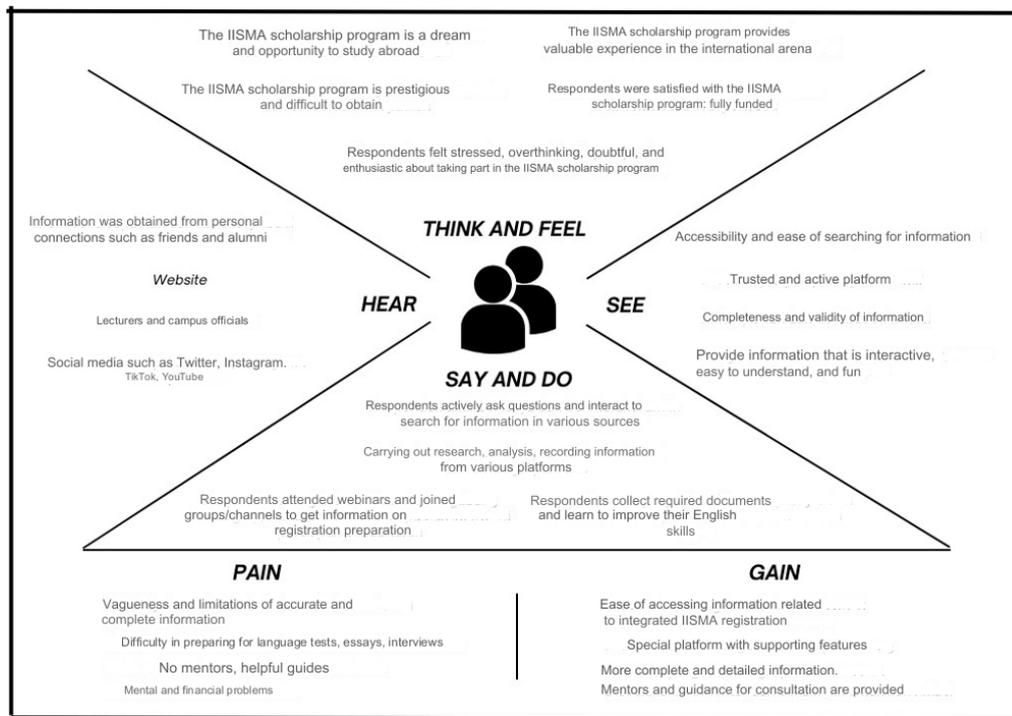


Figure 2
Empathy Map of IISMA Applicants

Ideate Stage

The ideate stage is planning a business model that is in accordance with what was obtained in the empathize and define stages. The business model was created using the business model canvas framework. Apart from that, preparations for creating the platform are visualized using a mind map. The mind map consists of several branches including consumer problems, namely prospective IISMA scholarship applicants, consumer needs, goals for creating the platform, platform focus, platform advantages, consumer target focus, solutions to consumer problems, platform benefits, platform goals, and collaboration with supporting parties. Before mapping, the respondent's answer data is processed using star bursting. Data visualization using the star bursting method selected data with common patterns from the answers given by questionnaire respondents in the 5W+1H topic which included who, why, what, where, when, and how.

The business model canvas was chosen as the analysis framework because it is more comprehensive for each element. Customer segments are prospective IISMA scholarship applicants aged 18-23 years and are active students registered in State Universities and Private Universities who have or are planning to take part in the IISMA scholarship program registration selection. The value proposition is providing complete and integrated information on one platform with features or menus tailored to consumer needs and problem solving. Channels are communicated on a website called IISMA-go which can be accessed at any time. Customer relationships include advertising, collaboration with influencers, search engine optimization (SEO), and referral programs. Revenue streams come from selling advertising space to companies or institutions that want to promote their products or services, paid registration for premium content, and sales of digital products. Key resources are educational content, human resources, and technology. Key activities are collecting, managing and optimizing the required information and data. Key partnerships include universities, educational institutions, alumni who receive scholarships, and the educational community. Cost structures include operational and website development costs, as well as marketing costs.

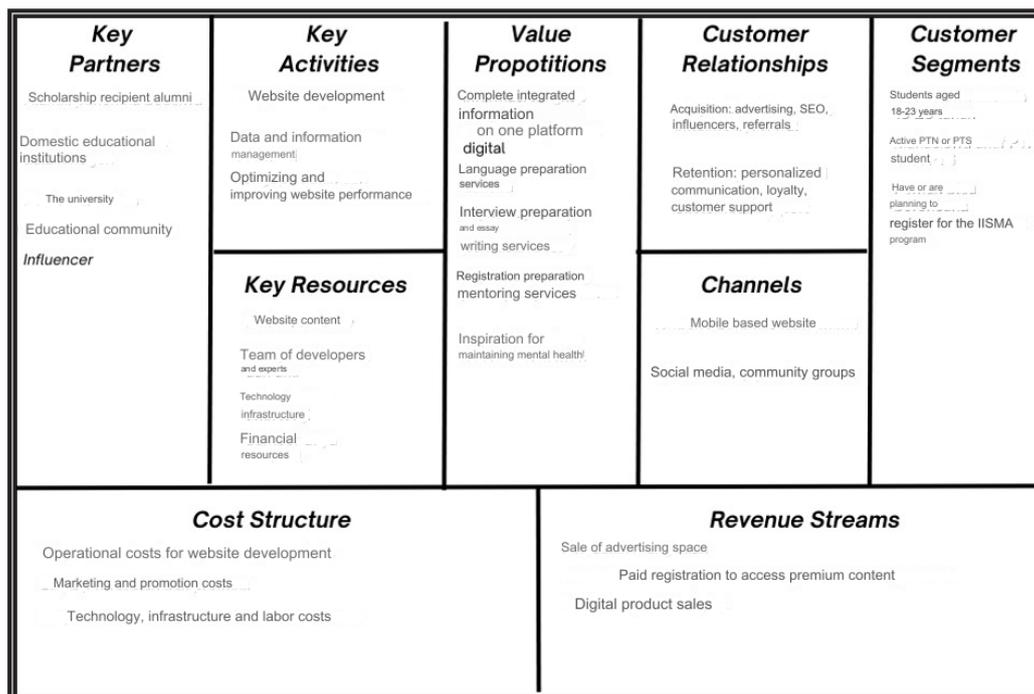


Figure 3
Business Model Canvas for IISMA-go Platform

Prototyping Stage

Prototype creation chooses a website as a platform to help prepare IISMA scholarship registration. The initial prototype design was created via Figma. The features or menus on the website are the result of data analysis of the needs and aspirations of research respondents, which are determined first in the form of a Minimum Viable Product (MVP).

The website is named IISMA-go, which consists of several menus, including a home page, a signup page, sign-in and user profile, a registration guide page, a consultation page with mentors, a useful articles page, a discussion forum page, student essentials page, and prepare registration page. The website prototype can be accessed and operated via the link <https://ipb.link/iisma-go>.

Testing stage

The prototype testing stage was carried out by distributing solution test questionnaires to 51 research respondents. The solution test questionnaire for the test stage uses the USE Questionnaire instrument which has four variables, namely usefulness, ease of leaning, ease of use, and satisfaction with a total of 30 questions. Respondents are given statements and answers to agree or disagree using 5 Likert scale scores.

Based on the percentage of feasibility categories, a prototype is declared very feasible if it reaches a score in the range of 81-100 [16]. Based on the results of the questionnaire, for the usefulness variable, IISMA-go received an average score of 4.41 or if presented as a percentage amounting to 88.2% shows that the usefulness of IISMA-go is very suitable for use. Furthermore, the average value of the ease of use variable is 4.24 or if presented as a percentage, it is 84.8%. This value shows that the ease of use of the IISMA-go system is very suitable for use. The overall ease of learning variable gets an average value of 4.38 or a percentage value of 87.6%, which means it is very suitable for use from the aspect of ease of learning.

Meanwhile, the overall average value of the achievement variable gets a value of 4.44 or if presented as a percentage, it is 88.9%. This shows that IISMA-go has a level of satisfaction that is very suitable for use. According to the four variables above, the IISMA-go prototype as a whole gets a score of 4.37 or a percentage value of 87.4%, which means the IISMA-go prototype is classified as very feasible.

Pivot Stage

Based on the results of solution testing on the IISMAgo website prototype, improvements and updates to the prototype are still needed to better suit consumer needs. There are several aspects of improvement that can be seen in Table 1. The results of prototype improvements can be seen and accessed at the link <https://ipb.link/prototype-iismago>.

Table 1
IISMA-go Pivoting Aspects

User Interface Component	Updated Feature or Improvement
Colours	Improved colour selection for better visual harmony and consistency.
Home Page	Dropdown menus were redesigned and moved into sidebar navigation.
Sign-up, Sign-in, and User Profile	Expanded login and registration options, including email-based account creation.
Registration Preparation	Added calendar tools such as event scheduling, note-taking, and notifications.
Consult with Mentor	Introduced mentor connection features, including video and voice calls. Added account activity status indicators.
Articles	Enhanced article layout for better readability and user experience.
Discussion Forum	Added both academic and non-academic categories to broaden forum discussion topics.
Student Essentials	Included detailed information services about host universities.
Time to Register	Added practice tools for essay writing, language tests, and interviews. Included progress indicators to track readiness.

Improvements were also made to the IISMA-go canvas business model. In the value proposition section, a scholarship registration simulation is added. This simulation covers the entire registration process which includes essay writing simulations, language test simulations, and interview simulations. In the *channel's* element, the addition is for awardees who receive scholarships. Scholarship recipient alumni have a crucial role in promoting the IISMA scholarship so that they can help IISMA-go reach a wider target market. Key activities elements get additional activities to add and update existing features or services on IISMA-go.

In the key partners section, host university is added. The host university plays an important role in providing information regarding academic and non-academic information at their university. Furthermore, for the revenue streams section, IISMA-go gets additional funding flows from consulting service fees carried out personally with mentors. Based on the description above, improvements to the IISMA-go business model canvas can be seen in Figure 3.

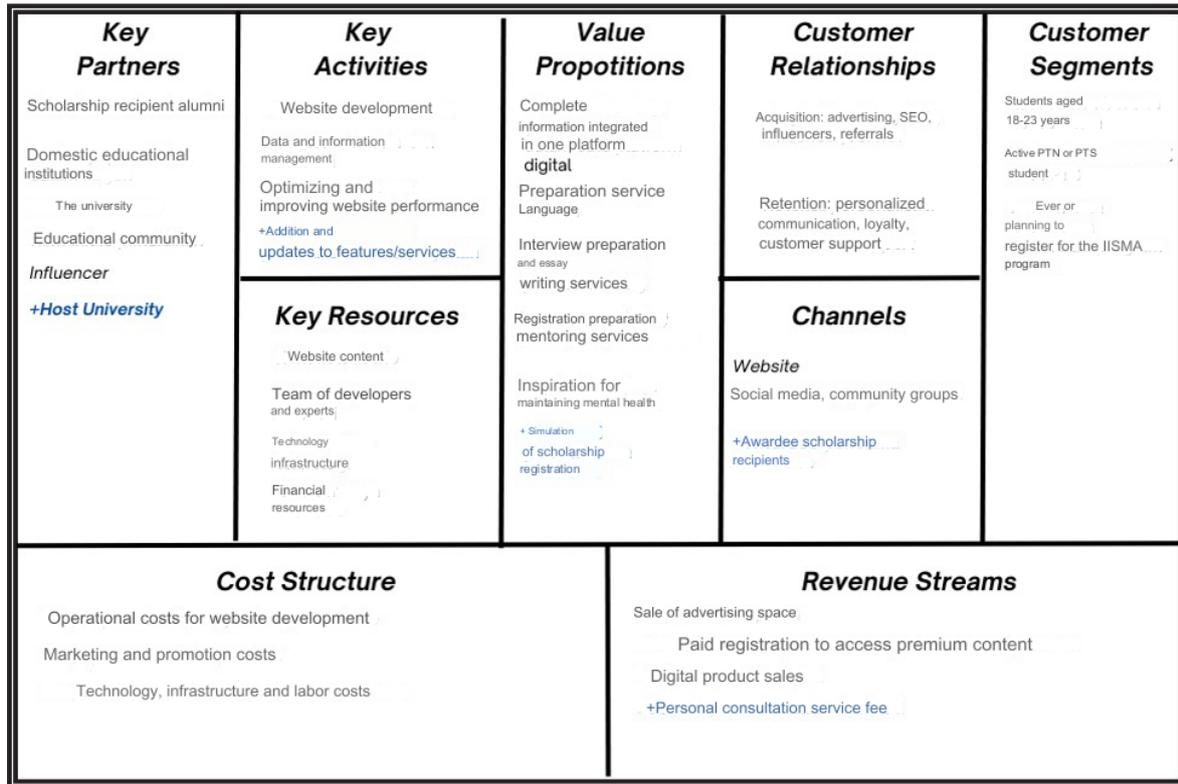


Figure 4
Pivoting BMC for IISMA-go Platform

Figure 4 illustrates the pivoted Business Model Canvas (BMC) for the IISMA-go platform, reflecting adjustments based on user feedback and solution testing from (Zidani & Sudarwati, 2023). This updated model strengthens the platform’s alignment with real user needs by expanding the value propositions to include simulations for registration, essay writing, language tests, and interviews addressing the top difficulties identified by students during the empathize stage of the design thinking process. Additionally, the platform now engages awardee alumni and host universities as key partners, which enhances mentorship and localized university insights. The revenue stream is also diversified with the inclusion of personal consultation service fees, making the model more sustainable. Compared to the earlier BMC, this pivot shifts the focus from just providing content to delivering an integrated, interactive, and personalized experience. These improvements directly respond to the original study’s findings, where 73.4% of respondents faced difficulty accessing centralized, comprehensive IISMA scholarship preparation information. Thus, Figure 4 not only reflects an evolved strategy but also reinforces the practicality and user-driven design of IISMA-go as detailed in the original research.

CONCLUSION

Based on the results of research conducted through interviews, surveys and observations, several problems have been identified by prospective IISMA scholarship applicants when preparing to take part in the IISMA scholarship program selection. Some of these problems are limited access to information integrated in one source, problems with readiness for language tests, essay writing and interviews. Apart from that, the lack of guidance and guidance also means that prospective scholarship applicants need mentors.

Based on an analysis of the problems experienced by prospective IISMA scholarship applicants, problem solutions have been identified that can help prospective scholarship applicants to better prepare for scholarship selection on the IISMA-go website which provides registration guide menu services,

discussion forums, consultations with mentors, useful articles, student essentials, and prepare for registration. This menu service is designed to be a solution to problems that include providing more complete and integrated information, training for language test readiness, essay writing, interviews, as well as providing clear registration process guidance. The next solution is to provide and increase access to mentoring or guidance. The business model based on the research results is designed as a digital business model in the form of the IISMA-go website platform which includes important components in customer segments, value propositions, distribution channels, customer relationships, sources of income, key resources, key activities, key partnerships, and cost structure. IISMAgo as a recommendation for problem solutions is designed in the form of a website that has several features that have been adapted to the needs and problems experienced by prospective scholarship applicants, namely registration guides, consultations with mentors, discussion forums, useful articles, student essentials, and preparing for registration. This business model is designed with a focus on providing solutions to identified problems and creating added value for users. Based on the business model and solutions that have been identified, the prototype design is carried out in the form of the IISMAgo website platform. This website platform includes features and services that support solutions to IISMA scholarship application preparation problems. The usability test in this research was carried out using the USE Questionnaire method. The results of this test show that the overall average assessment of the website prototype is 4.37 or if presented as 87.4% of the four variables which include usefulness of 44.38 or 88.3%, ease of use of 4.24 or 84.8%, ease of learning was 4.38 or 87%, and satisfaction was 4.44 or 88.9%. This assessment shows that the IISMA-go website prototype is very suitable to be developed as a solution to the problem of preparing for IISMA scholarship registration.

REFERENCES

- Dawya, S. A., & Okvitawanli, A. (2024). *More Than Studying Abroad: The Impacts of Indonesian International Student Mobility Awards (IISMA) Program To Its Alumni and Society* (pp. 617–626). https://doi.org/10.2991/978-94-6463-525-6_69
- Kementerian Keuangan Republik Indonesia. (2023). *APBN Pendidikan 2023*. <https://www.kemkeu.go.id/apbn2023/>.
- Lin, Y., Yousaf, Z., Grigorescu, A., & Popovici, N. (2025). Harnessing digital foundations and artificial intelligence synergies: Unraveling the role of digital platforms, artificial intelligence, and strategic adaptability in organizational innovativeness. *Journal of Innovation & Knowledge*, 10(2), 100670. <https://doi.org/10.1016/j.jik.2025.100670>
- Margono, H., Saud, M., & Falahat, M. (2024). Virtual Tutor, Digital Natives and AI: Analyzing the impact of ChatGPT on academia in Indonesia. *Social Sciences & Humanities Open*, 10, 101069. <https://doi.org/10.1016/j.ssaho.2024.101069>
- McDermott, R., Sagala, S., Susetyo, N. A., Insan, A., Harahap, W. D. P., Indrarini, A., & Azhari, D. (2025). The role of digital participation platforms in risk-informed development: A case study of Surabaya, Indonesia. *Progress in Disaster Science*, 26, 100430. <https://doi.org/10.1016/j.pdisas.2025.100430>
- Okorie, O., Russell, J., Cherrington, R., Fisher, O., & Charnley, F. (2023). Digital transformation and the circular economy: Creating a competitive advantage from the transition towards Net Zero Manufacturing. *Resources, Conservation and Recycling*, 189, 106756. <https://doi.org/10.1016/j.resconrec.2022.106756>
- Pemerintah Republik Indonesia. (n.d.). (1945). *Undang-Undang Dasar Negara Republik Indonesia Tahun 1945*. <https://peraturan.bpk.go.id/Home/Details/49408/Uud-1945>.

- Peng, L., Akhter, S., & Hashemifardnia, A. (2025). Podcast-integrated speaking instruction: Enhancing informal digital learning of English, academic engagement, and speaking skills. *Acta Psychologica*, 258, 105158. <https://doi.org/10.1016/j.actpsy.2025.105158>
- Peng, X., & Dai, E. (2025). The impact of a scholarship with no compulsory service requirements on international students' migration decisions upon graduation. *Economic Analysis and Policy*, 86, 779–793. <https://doi.org/10.1016/j.eap.2025.04.003>
- Reibenspiess, V., Drechsler, K., Eckhardt, A., & Wagner, H.-T. (2022). Tapping into the wealth of employees' ideas: Design principles for a digital intrapreneurship platform. *Information & Management*, 59(3), 103287. <https://doi.org/10.1016/j.im.2020.103287>
- Singh, N., Kumar, A., & Dey, K. (2023). Unlocking the potential of knowledge economy for rural resilience: The role of digital platforms. *Journal of Rural Studies*, 104, 103164. <https://doi.org/10.1016/j.jrurstud.2023.103164>
- The Jakarta Post. (2023, April 4). *Transnational education: An opportunity for Indonesia's future*. https://www.thejakartapost.com/opinion/2023/04/04/transnational-education-an-opportunity-for-indonesias-future.html?utm_source=chatgpt.com
- Wilczewski, M., & Alon, I. (2023). Language and communication in international students' adaptation: a bibliometric and content analysis review. *Higher Education*, 85(6), 1235–1256. <https://doi.org/10.1007/s10734-022-00888-8>
- Zidani, I. H., & Sudarwati, E. (2023). "I Didn't Anticipate The Weather, So I Borrowed My Friend's White Cloak": Emotional Geography Of Efl Students Taking Iisma (Indonesian International Mobility Awards) Exchange Program. *IJEE (Indonesian Journal of English Education)*, 10(1), 239–260. <https://doi.org/10.15408/ijee.v10i1.33270>