

## CROWDSOURCING FRAMEWORK FOR MODERN ACADEMIC LIBRARY : A LITERATURE REVIEW

Syahril Ulya<sup>1\*</sup>  
Della Kartika Sari<sup>2</sup>  
Siti Aswani Mohd Ghazali<sup>3</sup>  
Mohamad Rahimi Mohamad Rosman<sup>4</sup>  
Norfitriah Mat Seman<sup>5</sup>

<sup>1</sup> Library and Information Science, Faculty of Social and Political Science, Universitas Airlangga, Indonesia; Email:syahril.ulya-2020@fisip.unair.ac.id; ORCID ID (<https://orcid.org/0009-0008-6390-8450>);

<sup>2</sup> Library and Information Science, Faculty of Social and Political Science, Universitas Airlangga, Indonesia; Email:della.kartika.sari-2020@fisip.unair.ac.id ORCID ID (<https://orcid.org/0009-0006-0112-7814>);

<sup>3</sup> Faculty of Information Management, Universiti Teknologi MARA (UiTM) Kelantan, Malaysia; Email:aswani@uitm.edu.my; ORCID ID (<https://orcid.org/0000-0003-1560-968X>)

<sup>4</sup> Faculty of Information Management, Universiti Teknologi MARA (UiTM) Kelantan, Malaysia; Email:rahimimr@uitm.edu.my; ORCID ID (<https://orcid.org/0000-0001-9715-2905>);

<sup>5</sup> Perpustakaan Tengku Anis, Universiti Teknologi MARA (UiTM) Kelantan, Malaysia; Email:norfitriah@uitm.edu.my; ORCID ID (<https://orcid.org/0009-0003-2647-0406>);

\* Correspondence: Email:syahril.ulya-2020@fisip.unair.ac.id; +6282238407908

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**Abstract:** *Financial problems are faced by libraries widely throughout the world, including developed or developing countries. This condition makes it difficult for libraries to adapt to modernization and reconstruction work, even to provide maximum main services. Library and Information Science (LIS) which has to be as fair as possible to ensure and sustain knowledge as a driver for development. Crowdsourcing as a new collaborative, interactive and incremental paradigm for cultural heritage and multilingual bibliographic data curation, processing and mapping for library. Crowdsourcing uses social engagement techniques to achieve a common goal by working collaboratively as a group. This is reinforced by the fact that libraries are non-profit institutions, so crowdsourcing provides more value for the money involved as well as creating a sense of shared ownership (public). The research methodology used in this paper is literature review. The data contained in the finding were collected from 2017 - 2022 from several Indonesian academic libraries' financial reports and a secondary source. The findings were that libraries faced a lack of funding for library activities and services. Academic libraries as libraries under the auspices of institutions can take advantage of crowdsourcing systems, especially in the implementation of library programs that are hindered by funding from institutions. Crowdsourcing will help academic libraries to achieve goals without funding limitations, effectiveness and time efficiency for the realization of planned programs, active community involvement, building relationships (approaches) with users and strategic marketing to attract wider and more diverse participation.*

**Keywords:** *Modern Library; Financial Problem; Crowdsourcing*

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## **Introduction**

Libraries nowadays have developed as much as society has been developing at such a rapid pace. Libraries in the medieval time were certainly different from libraries that exist now. Library that is traditionally known as a physical place where collections of books, journals, manuscripts, and other sources of recorded information are stored and served to the users. Now, the functioning and environment of libraries have been impacted by the emergence of technology, namely the internet, modern telecommunications, data processing, information retrieval systems, management information systems, etc. As society changes, information needs and information-seeking behavior of library users also change and require libraries to adapt to sustain and maintain their position as the prominent institution of knowledge and learning. Libraries are prone to extinction if they do not evolve to deliver new modern services that meet the needs and expectations of their users.

Libraries in the modern world should continually develop by implementing information technology to meet the user's needs. The implementation of technology in libraries includes creating electronic catalogs, initiating the internet catalogs of libraries, digitizing physical books, self-service book loans, and so on. The development of technology and the growing change in the social, cultural, and economic state of society set out new tasks for libraries (Baryshev et al., 2020): utilizing digital technologies to optimize internal library operations; giving access to the primary collection of printed books to those who need it; library environment modernization; and enhancing and developing library services.

Academic libraries have a significant and crucial role in the development of knowledge and science. Thus, improving library service will have a significant impact to support the development of knowledge in the academic environment. Khan et al (2022) found that beside implementing expert leadership, advanced technological utility in academic libraries significantly accelerate the use of library resources, increase user performance, develop management abilities, and eventually improve academic achievement and services. However, the primary constraint faced by libraries frequently circles around financial source and funding in which academic libraries face the similar problem. This constraint can hinder the modernization of academic libraries and consequently slow down the development of knowledge and science.

Financial problems in libraries have existed for a long time. Financial problems are faced by libraries all over the world, regardless of whether they are academic libraries or public libraries, in developed or developing countries. Financial problems have been faced by libraries since the 1970s during the economic crisis (Çelik, 2000). Developing countries continue to struggle with financial problems that affect the allocation of funds to services and resources. These conditions make it difficult for libraries to adapt to modernization and reconstruction work, even to provide the main services to the fullest (Malhan, I. V. 2001). Financial problems are not only an issue but also a reality, ALA report (2009) mentioned that there is a decline in library use due to reduced funding.

The latest financial issues faced by libraries is after the whole world was hit by the Covid-19 pandemic. Generally, academic libraries have experienced funding cuts during the pandemic, thus experiencing uncertainty about long-term recovery (Frederick, J., & Wolff-Eisenberg, C.

2020). Similarly, Berg et al. (2022) stated that librarians felt the impact of funding cuts during the pandemic, making their work more challenging. Thus, it is clear that financial problems have a direct impact on the development of libraries to be better at providing services, adapting to technological changes, and moving towards modernization. However, various efforts have been made by libraries to tackle these problems, such as partnerships with organizations and grants (Moyer, 2005), community advocacy (Hussey & Velasquez, 2011), purchase-on-demand (Hutchinson, 2019), and communication plans to stakeholders (Borchert, 2023).

Library and Information Science (LIS) has to be as fair as possible to ensure and sustain knowledge as a driver for development. One of the ways libraries can implement to solve financial problems is crowdsourcing. Crowdsourcing as a new collaborative, interactive incremental paradigm for cultural heritage and multilingual bibliographic data curation, as well as processing and mapping for library. Research conducted by Al-Aufi et al. (2022) explains that the crowdsourcing method can be developed by information service institutions and has proven to be effective. Crowdsourcing has high reliability to increase public trust in information service institutions, develop transparent information attitudes and services, and develop technology as a medium for crowdsourcing. The development of crowdsourcing methods through online platforms, especially social media, can solve institutional problems that previously could only be solved through laboratory research and internal development studies (Erickson, 2013).

Information institutions and libraries have utilized online media, especially social media such as Twitter, Facebook, and Instagram in campaigning for crowdsourcing-based service programs. Not only information institutions and libraries, but the existence of the use of crowdsourcing methods has also penetrated into museums and archival institutions (Huang et al., 2017). Crowdsourcing in library and information services is a method for the public to explore the resources and collections owned by the institution (Library News Editor, 2017). As part of their response, some of these institutions - known as LAM (Libraries and Museums) - in Australia have harnessed participatory media such as Facebook and purpose-built digital sites that simultaneously collect, curate and often exhibit life narratives in public archives of crises by the citizen (Davies, 2023).

Crowdsourcing uses social engagement techniques to achieve a common goal by working collaboratively as a group. In financial matters, crowdsourcing is the right choice. This is because many people, both individuals and groups, can participate and contribute to the library. Brabham (2008) argues that "crowd-sourcing is a model appropriate for the utilization of collective talents by aggregating collective intelligence and knowledge and also by increasing the ingenuity of the crowd". Crowdsourcing is needed to overcome financial or staff crises to provide efficient services to its users because libraries can achieve their desired goals without any financial and resource constraints. This is reinforced by the fact that libraries are non-profit organizations, hence crowdsourcing provides more value for money and creates a sense of shared (public) ownership.

### **Method & Material**

The research methodology used in this paper is literature review. The data contained in the finding were collected from 2017 - 2022 from several Indonesian academic libraries' financial reports and a secondary source, such as a thesis of analysis of an academic library's financial report. The finding also includes the analysis of one of the academic libraries in Malaysia's financial report available online. The academic libraries being analyzed in this paper are

Universitas Gadjah Mada Yogyakarta (UGM), National Institute of Islamic Religion (IAIN) Syekh Nurjati Cirebon, Universitas Nahdhatul Ulama (UNISNU) Jepara, Institute of Economic Science (STIE) Amkop Makassar, and Universiti Teknologi MARA Malaysia (UiTM). Both UGM and IAIN Syekh Nurjati are public institutions in Indonesia while UNISNU Jepara and STIE Amkop Makassar are private institutions in Indonesia. IAIN Syekh Nurjati, UNISNU Jepara, and STIE Amkop Makassar are small institutions while UGM itself is one of the oldest and most reputable universities in Indonesia. UiTM is one of the largest universities in Malaysia with its branches located all over the states.

### Findings

There are several institutions that transparently provide opportunities for the public to be able to access the institution reports and secondary source that contain their libraries' financial information. The findings are described in the description below:

#### Library of Universitas Gadjah Mada

Library of Universitas Gadjah Mada (UGM) receives funding allocation from the government and community funds received through the university. The amount of budget allocation of UGM central library from year to year has decreased and increased. The results of data obtained by the UGM central library budget in a span of 5 years, namely from 2022 to 2018, show that there are decreases and increases alternately. The number of library budgets in 2019 increased by around 18.38% from 2018, but decreased in 2020 by -10.78% from 2019. In fiscal 2020, the decrease in funding from the previous year was also due to budget priorities for COVID-19 prevention. Furthermore, in 2021 funding increased from the previous year by 2.85%, then decreased again in 2022 by -5.88%. Broadly speaking, it can be seen that there are fluctuations in funding that occur in that time span.

**Table 1: Table of UGM Library's Budgeting in 5 Years.**

Year	Library's Budget	University's Budget	Ratio (%)
2022	19.166.229.326,00 IDR	3.304.419.404.687,00 IDR	0,58
2021	20.365.363.437,00 IDR	2.809.890.314.889,00 IDR	0,73
2020	19.801.449.222,00 IDR	2.715.249.909.129,00 IDR	0,73
2019	22.216.210.113,00 IDR	2.579.822.390.071,00 IDR	0,86
2018	18.766.446.516,00 IDR	2.942.621.414.623,00 IDR	0,64

Source: Annual UGM Library Report 2018-2022 and Annual UGM performance report 2022

A significant decline occurred in 2020 leading to a reduction in database subscriptions and non-implementation of grants for librarian research. On the other hand, the library budget also has not met the national standards of university libraries based on National Library of Indonesia Regulation Number 13 of 2017. Universities as main organizations allocate a budget to libraries of at least 5% of the total college budget (excluding physical development and salaries). This is not in line with the increase in university funding which tends to increase every year. Even the library's funding ratio does not reach 1% of the university's overall funding.

### **Library of Universiti Teknologi Mara (UiTM)**

In 2018, UiTM Libraries had a total budget of RM17,073,662.10 (seventeen million seventy-three thousand six hundred sixty-two ringgit ten cents) allocated to 14 UiTM Libraries. Shah Alam was the largest recipient at RM10,000,000.00 (ten million Malaysian ringgit), followed by Sabah at RM1,644,500.00 (one million six hundred forty four thousand five hundred Malaysian ringgit) and Selangor at RM1,584,154.26 (one million five hundred eighty four thousand one hundred fifty four ringgit twenty six sen). The recipient of the least funding allocation was Terengganu with RM130,091.28 (one hundred and thirty-nine thousand one hundred twenty-eight sen).

The total revenue received by UiTM Library in 2018 was RM 612,639.65 (six hundred twelve thousand six hundred thirty nine ringgit sixty five cents). Shah Alam was the branch with the highest revenue of RM137,754.29 (one hundred and thirty-seven thousand seven hundred and fifty-four ringgit twenty-nine sen) and Kelantan was the branch with the lowest revenue of RM2,235.98 (two thousand two hundred and thirty-five ringgit ninety-eight sen).

Since 2016, the funding designated to the Malaysian Ministry of Higher Education has reduced to RM13.37 Billion when compared to the 2015 funding of RM15.78 Billion. The funds were further reduced until in 2017 there was also a decrease in the number of book purchases. The reduction in the allocation of funds given to the Ministry of Higher Education each year certainly has a tremendous impact on finances in higher education libraries in Malaysia. College libraries require a lot of money to continue to develop collections and services, so if the funds received are reduced, the library is forced to make budget cuts so as not to affect customer satisfaction.

Based on the information available in Bajet 2018 by the Ministry of Finance Malaysia, UiTM received a funding allocation of 2.4 Billion Ringgit. These funds do not include scholarship grants and other activities. It is quite unfortunate that UiTM allocates funds for the library only with a total budget of RM17,073,662.10 (seventeen million seventy-three thousand six hundred sixty-two ringgit ten sen) which is also then divided into 14 branches. An appropriate level of funding for the long-term development of libraries is needed especially in improving the effectiveness of the resources available to users and also the provision of services in accordance with what has been stated in IFLA Publication 147.

### **Library of IAIN Syekh Nurjati Cirebon**

Another library that transparently provides information on financial management is the IAIN Syekh Nurjati Cirebon Library in 2019. According to the financial report, IAIN Syekh Nurjati Cirebon Library Cirebon has a total budget of Rp. 613,826,000 (six hundred thirteen million eight hundred twenty six thousand rupiah). From the total budget, it is realized into several types of expenditures, namely for routine library activities in the form of procurement of collections, maintenance of library materials, procurement of library facilities and infrastructure, procurement of seminars and workshops, and human resource empowerment in the form of employee salaries. The amount of budget managed by the library is sourced from institutional funds managed by the library's finance department. However, in its realization, the total budget given has not been able to meet the target of library needs. This is also influenced by the factor of lack of maximum budget absorption due to some of the activities of implementing budget realization at the end of the year. There are several activities that have not been realized due to budget factors, namely the procurement of library RFID, the procurement of book transport



elevators, the procurement of a new library center building, and e-Journal International subscriptions (IAIN Central Library Syekh Nurjati Cirebon, 2019).

Although the realization of the majority budget plan has been more than 70%, the budget is still less than the minimum budget stipulated by law, which is 5% of the total budget of the institution excluding employee expenditure. There are several issues in IAIN Syekh Nurjati Central Library that require the allocation of funds and a new budget plan, including:

1. Library buildings that are not in accordance with the National Library Standards for Higher Education Libraries
2. Lack of adequate human resources. There are several units that are vacant due to lack of human resources, such as IT units, front office guards and locker officers, BI Corner service officers, Cirebonese Corner officers and officers for repair and binding of damaged books and Shelving officers (moving books).
3. The ratio of the number of librarians at the IAIN Syekh Nurjati Cirebon library center has not met the National Library Standards for Higher Education Libraries.
4. The ratio of the number of collections in the IAIN Syekh Nurjati Cirebon library center has not met the National Library Standards for Higher Education Libraries.
5. IAIN Syekh Nurjati Cirebon Library has never subscribed to international journals.

#### **Library of Universitas Islam Nahdhatul Ulama (UNISNU)**

UNISNU Jepara Library in 2018 has an annual budget of Rp. 250,000,000 (two hundred and fifty million rupiah) with an average monthly budget of Rp. 21,020,000 (twenty one million twenty thousand rupiah). The source of this budget comes from foundations and also third parties (PNRI). UNISNU expenditure funds other than employee expenditures are Rp. 32,656,000,000 (thirty-two billion six hundred and fifty-six million rupiah), while the library budget each year is 252,240,000 (two hundred fifty-two million two hundred forty thousand rupiah) which is only 0.78% of the ideal budget of 5%. The budget for the library has not been optimal because the library does not have an appropriate development plan and also literacy activities to support academic development in the university environment.

Although the survey results stated that students were satisfied with library services, the library needed to increase the number of collections to meet the needs of users in accordance with the Regulation of the Head of the National Library of the Republic of Indonesia No. 13 of 2017 concerning National Standards for Higher Education Libraries. In addition, other issues to note are:

1. Add scientific journals subscribed per study program because there is only 1 journal that has been subscribed.
2. Subscribe to an electronic journal because the library has not subscribed to any journal at all.
3. Subscribe to a database because the library has not subscribed to any database at all.
4. The area of the collection room is still substandard and also has not utilized multimedia and budget provided very well.
5. It is necessary to improve the quality of user comfort by adding lighting in some parts of the collection room
6. Repository policies that do not yet exist and have not been discussed

### **Library of Institute of Economic Science Amkop Makassar**

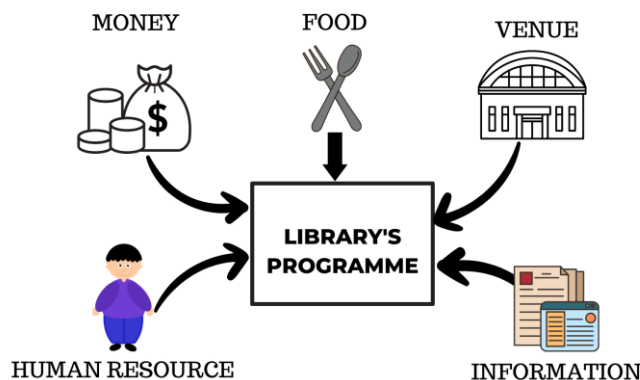
Several financial challenges are also faced by the Institute of Economic Science Amkop Makassar Library. The library's fund comes from the campus and is used to meet the library's needs in which the needs have not been realized completely because of the shortage of the fund. The fund received from the campus management is used for collection acquisition, facilities and infrastructure of the library, collection preservation, e-learning development, and office equipment procurement. However, as in 2019, the fund was allocated for another need, namely the development of other parts of the library's building. The only other source of the library's budget comes from fines in which the amount is still low. This source of funds is used to buy additional office equipment needed (Harzuki, 2020). This financial constraint results in unimplemented programs and limits the library from serving the best services, collection, and program to its users.

### **Discussion**

Financial readiness is a determining factor in the sustainability of library activities and services. Generally, libraries face a lack of funding for library activities and services as described earlier. Academic libraries have a source of funding from the main organization, the university, which allocates funding from government and public funds. The lack of funding from universities to university libraries is due to the global financial situation during the pandemic. It can be seen that UGM library funding has decreased significantly during the pandemic so there must be a reduction in database subscriptions and activities are not carried out. The university as the main organization has not provided funding allocations under the provisions, which has hampered the development of library facilities and infrastructure. Moreover, the library does not have alternative funding besides the main organization to meet its needs. Therefore, the author proposes an alternative to the problem through crowdsourcing.

### **Crowdsourcing**

Crowdsourcing is an effort to gather resources based on the willingness of the community voluntarily and their awareness to achieve goals that are considered important (Ar-Rahiem, 2019). Crowdsourcing is done to find resources including data and information that are effective and efficient to be coordinated in accordance with the authority of individuals and individuals in order to meet needs and achieve goals. Crowdsourcing is usually done through platforms that have a large reach of community access such as through social media, websites, and applications that already have a large database and network. This is done so that crowdsourcing can be widely known by the public, especially those who give focus on non-profit organizations. The quality and success of crowdsourcing is influenced by several factors such as the level of education of a community, collective awareness, access to information, and technological intervention in the community. The dissemination of information both through the network and outside the network greatly affects the success of crowdsourcing (Dede et al., 2020).



**Figure 1: Crowdsourcing system in library.**

Crowdsourcing since its introduction by Howe (2006) has been applied in various institutions that have a wide reach to the community. Crowdsourcing is a powerful strategy to overcome the problem of funding shortages (Erickson, 2013; Al-Aufi et al., 2022). Moreover, crowdsourcing covers a variety of issues that can be addressed according to the type of crowdsourcing that can be implemented as needed; 1) crowdfunding 2) crowd wisdom; 3) crowd creation; and 4) crowd voting. It is important to determine several types of crowdsourcing to be used so that it can be appropriate and achieve the objectives (Howe, 2008). However, it is possible to have a mix-method in crowdsourcing applications. The library can apply crowdsourcing (crowdfunding) in meeting physical (tangible) needs, and apply crowdsourcing (crowd wisdom, crowd creation) in gathering other resources for the implemented program.

### **Motivation and Crowdsourcing**

Andro (2018) argues that crowdsourcing provides benefits for both parties involved, both libraries and users. The motivation for users to participate in crowdsourcing can be viewed from intrinsic and extrinsic motivation. Intrinsic motivation for users to participate in crowdsourcing can be in the form of individual motivation such as; interest in a field, self-development, to prove something, or even for fun (for pleasure). In addition to individual motivation, it can also be viewed from collective motivation such as; feeling useful/impactful to the community; participating for free; the possibility of meeting other people; or even feeling indebted from services that have been obtained. On the other hand, extrinsic motivation can be in the form of immediate benefits such as; economic motivation (money); gifts; and other benefits that can be obtained immediately. Included in extrinsic motivation are benefits that are obtained over time or in the long term such as; developing popularity; seeking job opportunities; adding experience for job development.

However, the aforementioned economic motivations are paradoxical to the problem being solved. How can an underfunded academic library provide economic benefits (money) to participants? Therefore, a more appropriate approach in this case is to provide other rewards. Furthermore, Andro (2018) explains that it is important to maintain the loyalty of participants who are actively involved in crowdsourcing. This can be done by giving awards in various forms such as displaying the names of active participants, recognizing the contributions made to each project, getting certificates, or even getting further training for involvement in programs conducted by the library. The awards received by participants will be a motivation to continue



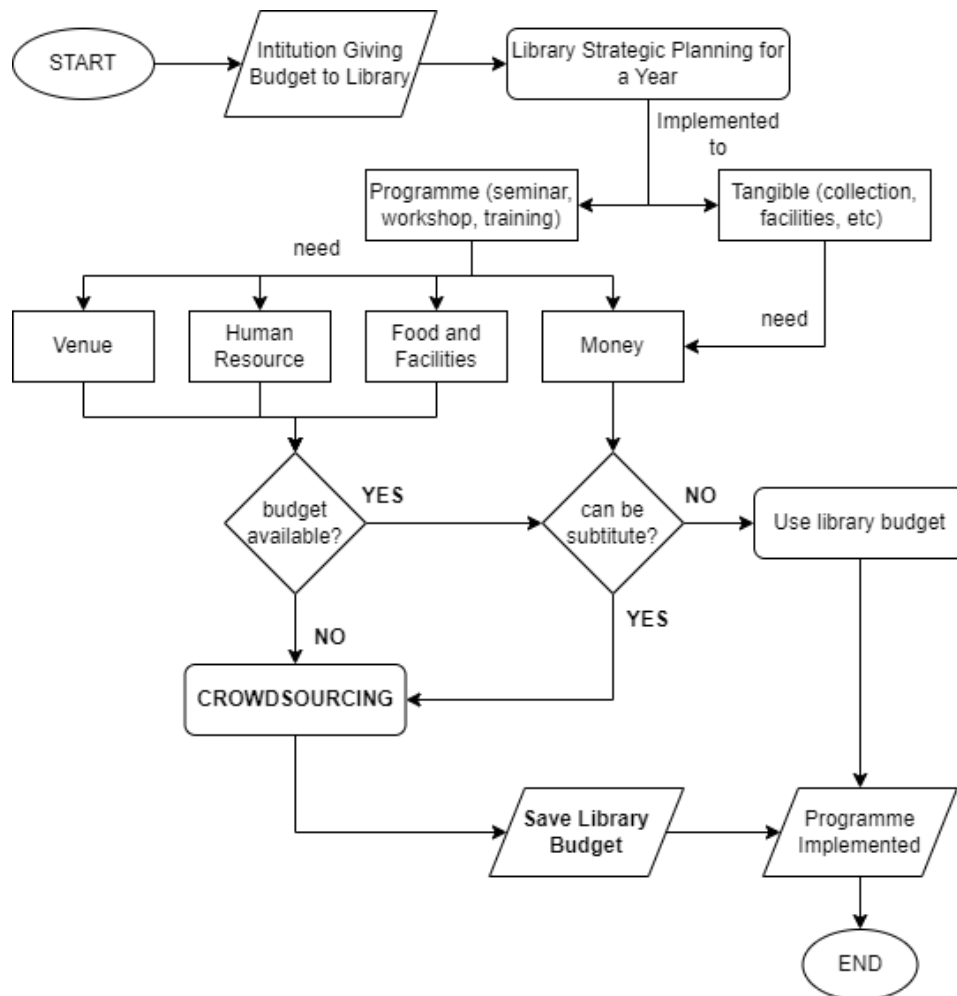
to be involved in the activities, however, the awards are in accordance with the scale of the contribution given (Puspitasari, 2019).

In addition to the motivation of the participants, a gamification approach can be considered to attract participation in crowdsourcing. Gamification can be considered by libraries to build user engagement models such as to solve problems, make contributions, and get rewards or recognition. The implementation of gamification can include participation categories based on contributions such as Gold, Silver, Medal or other similar tier models. The gamification approach in linking participation in crowdsourcing in libraries has been proven to influence participants' interest because it increases feelings of fun, comfort and enjoyment (Zain, Sardi, & Junaedi, 2020). In addition to increasing motivation for participation, gamification-based trust can also be a supporting factor for the further success of crowdsourcing (Xu., Wu, & Hamari, 2022).

Andro (2018) emphasizes that communication and marketing can be one of the keys to attracting participation. The page containing information for crowdsourcing should include detailed program information, and be open to questions from potential participants. These efforts should be made to convince potential participants to join. The content of the marketing should be clear and concise without requiring more effort from potential participants (to dig through the information). The involvement of various parties is the key to crowdsourcing being implemented and can solve the problems faced by academic libraries. So it is important for academic libraries to pay attention to user motivation factors and consider gamification approaches, of course, by adjusting the program context and social environment, as well as communication and marketing tricks. Even in the development of studies, crowdsourcing itself is one of the approaches to build relationships with customers so that they can be able participate (Ellis, & Peña, 2015).

### **Crowdsourcing Implementation in the Academic Library**

As a non-profit organization, the library can apply the concept of crowdsourcing in carrying out library activities. The services in the library are user-oriented services that allow the community to be widely involved, especially users, to participate in certain activities carried out by the library. Academic libraries as libraries under the auspices of institutions can take advantage of the crowdsourcing system, especially in the implementation of library programs that are hindered by funding from institutions with the following scheme:



**Figure 2: Flowchart of implementation of crowdsourcing in academic library**

Source : personal archive

Academic libraries receive budget allocations from institutions to carry out activities in accordance with the main tasks and functions of the organization. In carrying out its functions, the library makes strategic plans and targets to be achieved within a certain period of time, including how the organization's financial management strategy. In financial management, the library allocates the funds received into two types, tangible and intangible budget allocations. Tangible fund allocation is a form of budget realization in the form of collection procurement, infrastructure, facilities, and physical access provision. While the allocation of intangible funds is in the form of organizing seminars, webinars, workshops, training, and non-physically improving the quality of the library. To be able to run the entire program, the library has the challenge of being able to manage finances evenly.

Intangible activities carried out by libraries have more diverse needs such as the need for access, facilities, places, resources, and funds. To be able to cut these needs, the library can open opportunities for the community to participate in activities carried out by the library through a crowdsourcing system. Crowdsourcing held in a library activity is adjusted to the needs, especially resources that can be supported by many parties. In addition, substitutable needs that can be replaced with the sponsorship of other parties can be a priority for the library to do crowdsourcing. For tangible activities, the community can also contribute resources according to the needs of the library such as opening sponsorship for new collections and library facilities.

This can have a positive impact in the form of savings on the library budget, the implementation of all library activity plans without financial constraints, increasing the library's role as a shared institution that is close to all parties, and avoiding the exclusivity of the library as a source of information.

The implementation of crowdsourcing in the library sector has been applied through activity programs, both tangible and intangible activities. One example of the implementation of crowdsourcing carried out by Universitas Airlangga Library is the Library Volunteer program as a form of user contribution in helping libraries to carry out library programs such as book exhibitions, library seminars, talk shows, workshops, and various other activities engaged in library creative (Puspitasari, 2019). The participation and participation of users in library programs is important in creating library connectivity with the community.

Book donation is an example of crowdsourcing (tangible) implementation in the library. Guru Gembul, one of the influences who is active on Youtube with 779k subscribers, donated books to Nurul Hidayah School in East Bandung (Guru Gembul, 2023). His popularity and reach can attract the interest of the wider community to participate in the book donation program initiated by Guru Gembul. 775 books were collected from the book donation program initiated by Guru Gembul from 11 donors who had participated (Guru Gembul, 2023a). Social media platforms have a wide reach in accordance with the purpose of crowdsourcing applications in libraries and the library's mission of inclusiveness.

### **The Advantages and Drawbacks of Crowdsourcing**

Participants who engage in crowdsourcing programs will receive the benefits (Andro, 2018). Crowdsourcing can improve relationships between stakeholders, capacity building, and increase visibility to the public (Lynch et al., 2021). Indeed, crowdsourcing will help academic libraries to achieve goals without funding limitations, effectiveness and time efficiency for the realization of planned programs, active community involvement, building relationships (engagement) with users (Ellis, & Peña, 2015), and strategic marketing to attract wider and more diverse participation (Chhatwal & Mahajan, 2015). Finally, in the context of addressing research problems, crowdsourcing can be a strategy for libraries to deal with funding limitations.

It is undeniable that crowdsourcing has the disadvantage of predicting unexpected results. The first thing that will be faced is the fact that crowdsourcing involves multiple parties. It will be difficult to manage a large number of people, so it takes proper preparation before the crowdsourcing program is implemented by paying attention to the important points in the discussion. The quality of the end result may not be similar to professional work. In the discussion of crowdsourcing, Howe (2008) has discussed the difference between amateurs and professionals as a result of crowdsourcing programs. As the program is conducted on a voluntary basis, participation may not be predicted and may also leave without being predicted (Chhatwal & Mahajan, 2015). The weaknesses or shortcomings of crowdsourcing programs are side effects that can be avoided and anticipated while considering more benefits.

### **Conclusion**

Academic library has a crucial role in the development of knowledge and science by providing quality information and serving the best information services to meet its users' needs and wants. However, financial problems faced by academic libraries often prevent them from serving the best information and services. Therefore, crowdsourcing can be a solution to many financial

problems in the library so that various activity programs that have been prepared by the library can be carried out. Crowdsourcing allows an academic library as an information center that provides services for the community to build connectivity between various parties in order to build a modern academic library. Thus, crowdsourcing has a major impact on the continuity of library activities in carrying out their functions.

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