

Causes of Ineffective Electronic Journal Subscription in Academic Library

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Abstract

Problem Statement: The high cost of e-journal subscriptions makes it difficult for universities to have several databases for scientific disciplines. Meanwhile, database subscriptions is one of the library accreditation assessment points that create prestige for universities in Indonesia. **Purpose:** This study aims to determine the ineffectiveness of e-Journal subscriptions in the IPDN Library. **Method:** Method: Data were collected by interviewing 13 respondents out of a survey of 90 with the Convergent Parallel Mixed Method. The obtained data were further analyzed using a technique adapted from Sin and Kim's research, which is based on the factors influencing a person's desire to use electronic journal database facilities. This technique analyzed the readiness of human resources, infrastructure, budget, and legal protection. **Result:** The result showed that the librarian's human resource's support is in the very good category. Furthermore, users possess very good computer and software skills, good motivation and electronic search skills, and moderate foreign language skills. However, university libraries still lack infrastructure support due to insufficient search equipment, inadequate internet network, and limited content. Although budget support is included in the lacking category, institutional support related to the legal protection is sufficient, while sharing and using e-resources are carried out with the National Library. In addition, due to the numerous academic institutions in Asia, sharing and use of e-resources have become difficult, with poor collaborations among universities within the country. **Conclusion:** The causes of ineffective e-journal subscriptions are budget constraints, limited supporting devices, poor internet network, limited content, as well as lack of e-resource collaboration and sharing with other university libraries.

Keywords: E-Journal Subscription; e-Resources; Library Services; Academic Library, IPDN Library

Abstrak

Permasalahan: Tingginya biaya langganan e-journal menyebabkan tidak semua perguruan tinggi mampu memiliki banyak database disiplin ilmu, bahkan banyak yang tidak mampu memiliki satu pun. Sementara itu, menjadi salah satu poin penilaian akreditasi perpustakaan di Indoneisa dan menjadikan prestise tersendiri bagi perguruan tinggi. **Tujuan:** Penelitian ini bertujuan untuk mendeskripsikan mengapa langganan *E Journal* di Perpustakaan IPDN kurang efektif. **Metode:** Penelitian ini menggunakan Convergent Parallel Mixed Method. Pengambilan data melalui wawancara mendalam terhadap 13 informan dan survey terhadap 90 responden. Teknik analisa datanya menggunakan analisis yang telah diadaptasi dari model penelitian Sin dan Kim mengenai faktor-faktor yang mempengaruhi keinginan seseorang untuk menggunakan fasilitas pangkalan data jurnal elektronik dan menganalisa faktor kesiapan SDM, infrastruktur, anggaran, dan payung hukum. **Hasil:** Temuan penelitian menunjukkan bahwa berkaitan dengan dukungan SDM pustakawan sangat baik, kemampuan menggunakan komputer dan software pemustaka sangat baik, motivasi dan keterampilan penelusuran elektronis tergolong baik, serta kemampuan bahasa asing sedang. Adapun berkaitan dengan infrastruktur masih sangat kurang, yang disebabkan karena perangkat pendukung penelusuran masih sangat kurang, jaringan internet sangat kurang, dan konten yang

disediakan terbatas. Selanjutnya dalam hal dukungan anggaran termasuk dalam kategori kurang. Dukungan kelembagaan berkaitan dengan payung hukum tergolong cukup, akan tetapi sharing dan pemanfaatan e-resource hanya terlaksana dengan Perpustakaan Nasional saja, sementara dengan beberapa lembaga akademik di asia tidak berjalan baik, bahkan belum dilakukan kolaborasi dengan universitas di dalam negeri. **Kesimpulan:** Penyebab langganan *e-journal* menjadi kurang efektif di IPDN diantaranya adalah keterbatasan anggaran, keterbatasan perangkat pendukung, jaringan internet yang buruk, konten yang terbatas, serta belum dilakukannya kolaborasi sharing/pemanfaatan e-resource dengan perpustakaan perguruan tinggi lain.

Kata kunci: Langganan *e-Journal*, *e-Resources*, Layanan Perpustakaan; Perpustakaan Akademik; Perpustakaan IPDN

I. INTRODUCTION

Background. The rapid technological development led to the inception of the internet, which has become a basic need of society (Hendarsyah, 2012; Jarke, 2020). The internet supports the combination of broadband, fixed, and mobile services (Lintao, 2020). Technology plays an essential role in the field of education in creating and improving quality and effectiveness (Muhtadi, 2006). Novianto and Sari stated that educators cannot avoid the technological approach, teachers are not overwhelmed by the rapid thinking of the millennial generation students, due to the easy access to information and knowledge (Novianto, 2011; Sari, 2019). However, it is necessary for teachers to possess adequate data, technology, and human literacy skills to provide answers associated with the challenges of development in this technological era (Ghufron, 2018).

One of the higher education library innovations is e-journals (Ansor, 2017), which is similar to the digital era's innovation at the Library Department of Governance Institute of Home Affairs (IPDN Library). The e-journal is an identity and media used for scientific publication in an institution (Nashihuddin, 2020). It functions as a medium for digital information and communication regarding materials and references (Dermawan, 2018; Mustati & Nadjib, 2016; Sevilla, 2017; Venorita, 2017). E-journal also plays an important role in disseminating knowledge (Pama'tan & Panca, 2020; Setiawan, 2020), and provides better speed for receiving information than printed journals (Handayani et al., 2019). In addition to the speed of information, electronic journals also save time, money, and energy (Rejeki, 2013). Furthermore, due to its digital nature, students are able to utilize the Library, irrespective of the time and location (Fatmawati, 2020; Rahmawati et al., 2020). Librarians also do not need to index the journals, because electronic service providers have provided these facilities. The IPDN Library has served at least one database since its inception in 2013 (IPDN Library report, 2020).

Problem Statement. The existence of a higher education e-Journal service does not mean solving the problem associated with accessing digital library services in Indonesia. The main obstacle faced by e-Journal services is the high cost of subscriptions (Giantama, 2014; Saufa & Hidayah, 2018), which is not balanced by increased access statistics. The limited journal budget means that many libraries in higher education institutions are only able to subscribe to one of the disciplinary databases irrespective of the scientific disciplines. Hence, only certain universities are capable of disbursing large budgets for accessing these e-journals. Therefore, university libraries such as the Central and regional campus IPDN need to subscribe to some scientific databases because it is a point of

accreditation assessment by the National Library. Meanwhile, significant use both in quantity and quality does not necessarily occur.

Previous Literature Review. Numerous studies related to the use of e-journals have been previously conducted. Wulandari et al. stated that the use of e-journals in the Padjadjaran University (UNPAD) Library is insignificant, hence a marketing strategy is needed to increase the enthusiasm of its users. The research indicated that generation Z students use e-journals to increase knowledge, complete assignments, deepen course material, and write articles. The majority of social media used are Whatsapp, Instagram, and Youtube. Therefore it is necessary to compile messages with an informative and persuasive model on the benefits of e-journals, address information related to its usage, and choose appropriate communication channel (Wulandari et al., 2020). Ekarini et al. stated 75% of library users lack socialization and instructions on e-journal services at the Lampung University, due to their unawareness of the collection. Therefore, libraries need to be more active in carrying out socialization activities and information literacy classes (Ekarini et al., 2018). In other studies, 32.3% of respondents rarely used e-journals due to their limitation to reference sources, while 49.8% referred to the research objectives. Technically, the results were smooth due to the easy access of e-journal, however, the biggest obstacle was found in the use of language (Kamim & Christiani, 2019). Furthermore, Asri carried out a research to determine the external factors that influence the use of e-journal in Brawijaya University. The results showed that users have sufficient interest and motivation in using electronic journal collections, with a percentage of 64.21%. In terms of work relevance, 75% stated that electronic journal collections are relevant as a source of learning and work for users (Asri, 2016). Subsequent research found that a lot of consideration is needed when e-journal subscriptions are focused on one institution, including finance, user readiness, and stakeholders' use. According to Rifai, expensive subscription fees become cheap when accompanied by a high usage level (Rifai, 2019).

State of The Art. Preliminary studies have explored and measured the usefulness of e-journal services in certain libraries. However, no research discusses the ineffectiveness of e-journal subscriptions irrespective of the high annual budget.

Purpose. This study aims to describe the ineffectiveness of E-Journal subscriptions in the IPDN Library.

II. METHOD

This is a qualitative and quantitative research with data analyzed through the Convergent Parallel Mixed Method (Sugiyono, 2013). Creswell stated that qualitative and quantitative data were simultaneously collected and analyze separately, to determine whether the findings are complementary or not (Creswell, 2018). The authors collected quantitative data from 90 students in final level Diploma 4 (Semesters 5, 6, 7, and 8) that used electronic journals, using the Slovin formula (Rosalina & Wardhani, 2020). Furthermore, questionnaires were used to obtain data from each selected indicator (Sugiyono, 2013) with Kim's research model (Sin & Kim, 2013) used to determine the factors that influence a person's desire to use electronic journal database facilities. The author also collected qualitative data through in-depth interviews with 13 informants comprising 3 Heads of the IPDN Library Unit at Central and Regional Campuses, 2 electronic resources administrators at Jatiningor Central Campus, and 3 librarians and 5 users of e-journal services on each campus. These data were collected to provide a descriptive analysis of the unpreparedness of e-journal services in fulfilling the need for scientific information among the IPDN academic community at the Central and Regional campuses. The author also measured the readiness to implement electronic journal

services through 4 indicators selected and presented by several experts, namely human resources, infrastructure, budget, and legal protection (Glyptis et al., 2020; Kovačić, 2005; Limani et al., 2019; Musa, 2010; Putri & Darmawan, 2018). This research also utilized a purposive sampling model (Campbell et al., 2020), with the overall data analyzed using the reduction procedures adapted to the case study model (Creswell, 2018).

III. RESULTS AND DISCUSSION

The Readiness of e-Journal Services at IPDN Library. The Jatinangor IPDN Library has implemented e-Journal services since 2013. The concept of implementing electronic journals subscribed by this Library consists of two databases, namely publication and subscription. This study focuses on using (paid) e-journal subscriptions subscribed by the Jatinangor IPDN Library from 2013-2019, as shown in Table 1.

Table 1.

E-Journal Database Subscribed by the Jatinangor IPDN Library in 2013-2019

Year	Subscribed Journal Database	Number of Disciplines
2013	Proquest	Entire Database
2014	Proquest	Entire Database
2015	Proquest	Entire Database
2016	Proquest	Entire Database
2017	Cambridge Core	250 Journal Titles
2018	Cambridge Core	250 Journal Titles
2019	Ebsco	Political Science Complete 250 Journal Titles

Source: IPDN Library, 2020

Table 1 shows that the IPDN e-journal database subscriptions change yearly. From 2013 to 2016, the Library subscribed to Proquest with a fairly extensive database, although students' needs were only related to government science. Furthermore, in 2017 and 2018, it subscribed to Cambridge Core with a selection model of 250 journal titles selected from more than 20,000 titles. This was carried out to ensure the IPDN academic community needed the information contained in the subscribed journals. Furthermore, in 2019, the IPDN Library was only able to subscribe to the journal package from EBSCO, namely Political Science Complete. This makes the e-journal serviceable to serve a few study programs from the Faculty of Government Politics. Meanwhile, other study programs, such as Development Management, Government Management, Empowerment and Development, Population and Civil Registry Administration, Public Sector Safety Management, and Government Policy were not served (Suripto, Personal Communication, 2020).

The e-journal database service is useful to the academic community due to its ability to support references, academic activities, research, development, and community service. For postgraduate and doctoral students, this service helps students explore as many and complete references as possible (Akbar, Personal Communication, 2020). In addition, the existence of e-resources makes it easy for students to obtain references from their homes or boarding houses without the need to visit the Library (Rahmadanita, Personal Communication, 2020). However, based on the observation of the survey results, visitors prefer to use the national library e-resources socialized to users rather than the database subscribed by the Library. This is seen in the decrease in the number of visitors accessing the IPDN library journal subscription database.

Table 2.

Number of Visitors Per Year to the IPDN Journal Subscription Database for 2015-2019

Year	Subscribed Journal Database	Average Number of Visitors per Year
2015	Proquest	553
2016	Proquest	767
2017	Cambridge Core	268
2018	Cambridge Core	217
2019	Ebsco	315

Source: IPDN Library, 2020

Table 2 shows that the average number of visitors to the IPDN journal subscription database increased in 2016 with a drastic decrease in 2019. This is because the IPDN library in 2019 intensively educated users on the use of National Library e-resources to visitors after the implementation of the MoU between the Indonesia National Library and IPDN in January 2019 (Suripto, Personal Communication, 2020). The impact is that users indirectly acquire adequate references from all databases subscribed by the National Library. This research also determined the readiness of implementing electronic journal services through 4 indicators, namely, HR, infrastructure, budget, and legal protection supports.

Human Resource Support. The librarian is the main resource in implementing electronic resources services at IPDN, which is supported by other technical staff, as described in Table 3.

Table 3.

Number of Librarians and Technical Staff Libraries in IPDN Central and Regional Campuses in 2020

Library Location	Number of Functional Librarians	Other Technical Staff
Cilandak IPDN LIBRARY	-	4
Jatinangor IPDN Central Library	21	15
Papua IPDN LIBRARY	-	3
West Sumatra IPDN Library	1	4
Government Management Faculty Library	7	-
Community Protection Faculty Library	4	-
Government Politics Faculty Library	7	-
West Nusa Tenggara IPDN Library	5	1
West Kalimantan IPDN Library	-	3
South Sulawesi IPDN Library	2	2
North Sulawesi IPDN Library	-	4
Postgraduate Library	6	-
TOTAL	53	36

Source: IPDN Library, 2020

Table 3 shows that the IPDN Library's human resources in 2020 comprise of 53 functional librarian staff appointed by the Minister of Home Affairs. In addition, 36 other

technical staff was appointed by the IPDN rector, thereby culminating in 89 people. According to table 3, approximately 7000 users from outside the academic community visited the National Standards for Higher Education Libraries per year. Therefore, it is concluded that IPDN Library's Human Resources possess efficient skills to serve their users.

Table 4.

Number of Visitors to The Jatinangor IPDN Library by Type of User, 2016-2020

Year	Student	Functional for Lecturers and other Academic Community	Total
2016	28092	1180	29272
2017	15700	1638	17338
2018	14368	1124	15492
2019	20099	1105	21204
2020	7649	234	7883

Source: IPDN Library, 2020 (<http://app.elib.ipdn.ac.id/dash/index.php/visitor>)

Table 4 shows that the number of library visitors increased from 2018 to 2019, with a decrease in 2020 due to the COVID-19 pandemic. However, the service has continued to run online through the LFSH (Library Services from Home) policy, which is an online library service (Suripto, Personal Communication, 2020; Hapsari et al., 2020).

Apart from librarians and library technical personnel, an important element that needs to be prepared for the success of e-resources services is the library users. This research distributed a total of 90 questionnaires to users that have accessed the IPDN library e-journal database. The analysis results show that 98% of the respondents were in the very good category due to their ability to utilize the computer's existing devices properly. In addition, 95% tend to properly utilize software such as Microsoft Office and in the very good category.

Furthermore, 78% were in a sufficient category due to their ability to search, download, navigate, and print skills associated with the internet. The ease of using e-journal skillfully and without difficulty led to a score of 73%, and in enough categories. In terms of analyzing the data obtained, the respondents had adequate electronic search skills, with the ability to download and navigate skills. Therefore, in general, there are no significant difficulties in using electronic journals. The user's foreign language skills are in the moderate category of 62%, therefore, the existence of these abilities encourages the maximum use of the journal.

The desire to use electronic journals increases effectiveness in carrying out assignments, which obtained a score of 73%, which is included in the good category. Furthermore, the assistance in searching for the required information obtained a value of 74% and is included in the good category. The existence of trust in the obtained information source increased users desire to use e-library. Therefore, based on the data obtained, users have an increased desire to take advantage of electronic journals, such as its assistance in the effective completion of lecture assignments and searching for information.

Infrastructure, Support Facilities and Content. Infrastructure is an important component in the library service sustainability. However, in terms of accessibility, libraries have not been able to provide adequate supporting tools for searches in the poor category of 51%. This is because the IPDN library only has 5 computers used alternately on the second floor (Hidayati, Personal Communication, 2020). According to the Head of National Library's regulation regarding guidelines for accreditation of higher education libraries,

those with 2000 to 10000 students have at least 20 computer services (Sumiati, Personal Communication, 2020).

Furthermore, based on the questionnaire results, the available internet network was in the very poor category of 45%. This is in line with interviews results conducted with the head of the Library, which stated that the education technology department's bandwidth is not more than 50 Mbps. In addition, in certain conditions such as streaming units, the Library gets a bandwidth of approximately 10 Mbps (Suripto, Personal Communication, 2020). According to the Regulation of the Head of National Library of Indonesia regarding guidelines for accrediting higher education libraries at least a bandwidth of 500 Mbps is given to point A (maximum), which is related to the internet capacity of college libraries. The lack of bandwidth received by the Library also weakens the existing WIFI point. Therefore, the results of the interview and the Percent Index of the scores obtained are classified as insufficient, meaning that the internet network at the IPDN Jatinangor Library Center need to be improved, especially in situations where users are high to support webinars, online lectures, streaming and activities with heavy internet access.

Apart from the subscription journal website, the Library also provides a digital reader database accessible at <http://er.elib.ipdn.ac.id/>, which acts as a backup downloadable journal/book. One of the Library's obstacles is associated with locating the local application server, which is mixed with other applications with a limited capacity. Hence it is inaccessible to many digital readers. Until now, the Library does not have its database backup server (Suripto, Personal Communication, 2020)

The relevance of the information content provided is in line with the need to obtain a 50% score in the poor category. This is in line with the interviews conducted with the head of the Library, which stated that the Library subscribes only to 1 (one) scientific database subject. For instance, in 2019, the Library was only able to subscribe to the Political Science Complete database which serves one study program, while IPDN has 10 divided into 7 campuses.

Budget Support. Funding is the most important part of developing journal subscription services. However, the current IPDN library budget is still very limited, which has not increased since it was subscribed to journals, as shown in table 5.

Table 5.

Total Budget to Subscribe on IPDN e-Journal Database for the Year 2015-2019

Year	Subscribed Journal Database	Total Budget per Year
2015	Proquest	IDR. 185.000.000,00
2016	Proquest	IDR. 185.000.000,00
2017	Cambridge Core	IDR. 185.000.000,00
2018	Cambridge Core	IDR. 185.000.000,00
2019	Ebsco	IDR. 185.000.000,00

Source: IPDN Library Activities Operational Guidelines (POK) 2015-2019

With a limited yearly budget of IDR. 185,000,000.00 per year, the Library is only able to subscribe to one journal database and unable to meet the visitors' needs. Therefore, the Library conducted an MoU with the National Library of Indonesia in 2019 with the IPDN aggressively disseminating the national library resources (Suripto, Personal Communication, 2020). The subscribed databases also have limited scientific subjects,

therefore there is need to buy others such as ScienceDirect. Table 6 shows the comparison of a well-known institution with a large budget.

Table 6.

Comparison of Total Database Subscription to the IPDN Electronic Journal, Indonesian National Library, ITB, UI, and UGM in 2020

IPDN	Indonesian National Library	ITB	UI	UGM
Political Science Review (Ebsco)	Proquest Taylor & Francis World Scientific Wiley Indonesia Heritage Springer Nature CABI CNKI Academic Reference Alexander Street Press Wiley Online Library ScienceDirect mylibrary Cambridge University Press Britannica Library McGraw Hill Emerald Insight Clinicalkey Nursing Clinicalkey Pharmacology Taylor and Francis IGI Global Cengage Learning Westlaw Next IG Publishing Ebsco ebrary Sage	Elsevier ScienceDirect IEEEEXPlore Digital Library Association for Computing Machinery (ACM) Digital Library American Chemical Society (ACS) American Society of Civil Engineers (ASCE) American Physical Society (APS) SpringerLink ProQuest Taylor and Francis McGraw-Hill Access Engineering McGraw-Hill Access Science Nature Nature Biotechnology Nature Climate Change Nature Climate Change Nature Geoscience Nature Materials Nature Nano Technology Nature Physics OnePetro	Annual Reviews Cambridge Ebsco JSTOR Nature Proquest Sage Sciencedirect Springer Database Clinical key Cinahl Dentistry and Oral Science Source (EBSCO) Dynamed Medline Micromedex Wiley Databases Association for Computing Machinery (ACM) American Chemical Society (ACS) American Institute of Physics (AIP) American Physical Society (APS) American Society of Civil Engineering (ASCE) American Society of Mechanical Engineers (ASME) Journal ieeexplore Institute of Physics Royal Society of Chemistry Database APA Business Source Complete (EBSCO) emerald Kluwer Arbitration Hukum online Taylor and francis Westlaw	Cambridge Core Nature Online Oxford Journals Online Sage Journals Sage Research Methods Science Direct Scopus SpringerNature BJOG An International Journal of Obstetrics and Gynaecology BMJ Clinical Key Cochrane Library Immunological Reviews J. Clin. Periodontol. Journal of Internal Medicine Periodontology 2000 Tissue Eengineering American Journal of Agricultural Economics American Journal of Primatology Taylor & Francis Biological, Earth, Environmental & Food Sciences CABDIRECT Animal Health and Production Compendium Aquaculture Compendium Crop Protection Compendium Forestry Compendium Journal of Agronomy and Crop Science J. Food Sci.jpg Accounting and Business Research Bulletin of Indonesian Economic Studies Economic Development and Cultural Change European Journal of Work and Organizational Psychology Financial Accountability & Management Journal of Environmental Economics and Management The Journal of Finance Journal of Gender Studies JHE Journal of Public Economics JUE Global Ethics IMF eLibrary Data The International Journal of Human

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SIAM Journals
AMA (American Management Association)
Cambridge Core
Ebsco Dentistry & Oral Sciences eBooks
Ebsco eBooks
GLOBAL Professional Publishing
KITLV (Koninklijk Instituut voor Taal-, Land- en Volkenkunde)
Springer eBook Collection
Taylor & Francis E-books
University Press Scholarship Online
Wiley Online Library

Source: e-Resources Web of Indonesian National Library, ITB, UI, UGM, 2020

Table 6 shows that the IPDN library budget is low compared with libraries at the national level. This limited budget, in addition to the inadequate number of accesses, is one of the reasons for the ineffective e-journal subscriptions. Furthermore, the budget of e-resources socialization activities to regional campuses has also decreased.

Table 7.
Number of IPDN e-Resources Socialization Activities in 2015-2020

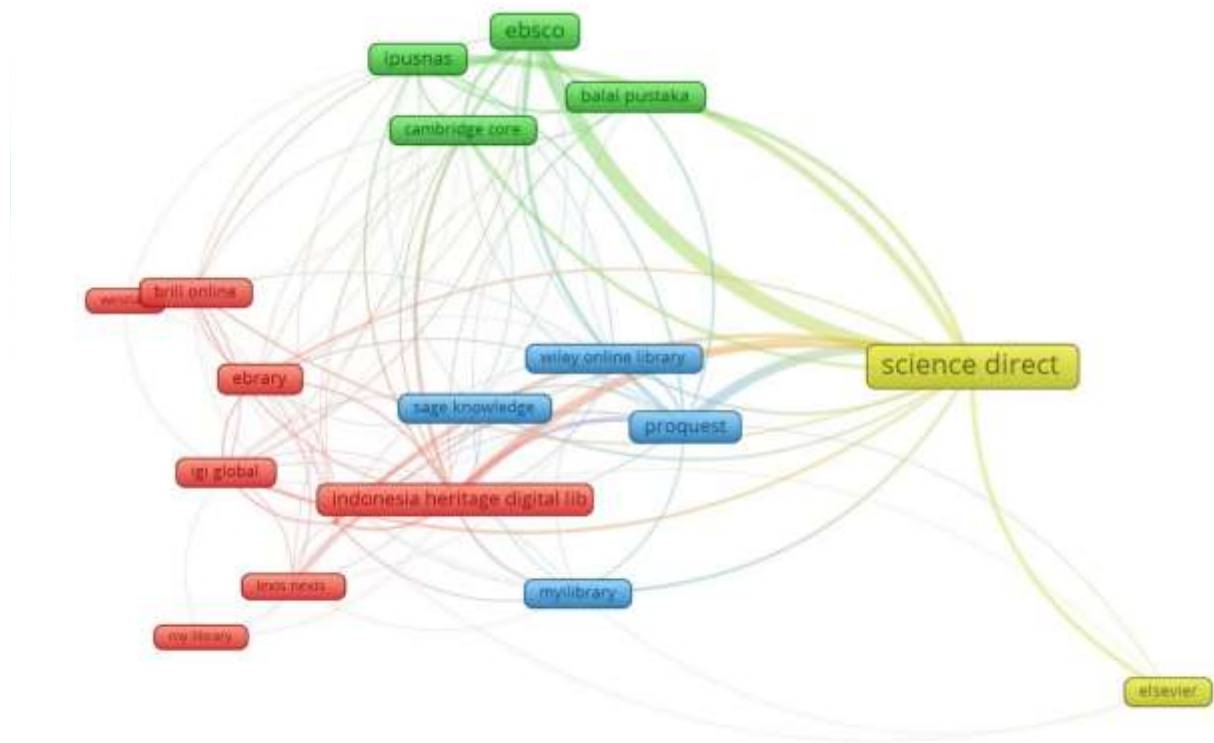
Year	Number of Activities	Locations
2015	8 Activities	IPDN Jatinangor Campus, IPDN Cilandak, IPDN West Sumatra, IPDN South Sulawesi, IPDN Riau, IPDN West Nusa Tenggara, IPDN North Sulawesi, IPDN West Kalimantan, and IPDN Papua
2016	10 Activities	IPDN Jatinangor Campus, IPDN Cilandak, IPDN Sumatra Barart, IPDN South Sulawesi, IPDN NTB, IPDN North Sulawesi, IPDN West Kalimantan, and IPDN Papua
2017	6 Activities	IPDN Jatinangor Campus, IPDN Cilandak, IPDN Sumatra Barart, IPDN South Sulawesi, IPDN NTB, IPDN Papua
2018	5 Activities	IPDN Jatinangor Campus, IPDN Cilandak, IPDN

		West Kalimantan and IPDN West Sumatra
2019	4 Activities	IPDN Jatinangor Campus, IPDN Cilandak, and IPDN West Sumatra
2020	2 Activities	IPDN Jatinangor Campus and IPDN Cilandak

Source: IPDN Library, 2020

The most impactful socialization activities were increasing access to IPDN subscribed journals in 2016. This is because apart from the intense frequency of socialization, all IPDN campuses in the central and regional regions were successfully conducted. Socialization had the highest impact on the increase in knowledge and access to e-journal skills for readers in 2019 due to the content of the socialization material, in the Indonesian National Library e-resources database. Users are increasingly maximizing the use of existing e-resources for the benefit to fulfil their scientific information needs. This is in line with the questionnaire, which showed that users prefer to access the Indonesian National Library database to the IPDN Library, as shown in Figure 1.

Figure 1.
Distribution of National Library e-Resources Database User (*Praja/Student*) During the Last Four Years



Source: Processed data, 2020

Figure 1 shows that 83 respondents accessed the ScienceDirect database more often, with frequently accesses to Ebsco, ProQuest, iPusnas, Wiley, Indonesia Heritage Digital Library, Balai Pustaka, Elsevier, Cambridge Core, etc. Interview results showed that library users tend to often access the National Library e-Resources database compared to the e-resources subscribed to the IPDN library. This is because the National Library e-resources

have a complete database with a scientific field, therefore the information needed to complete assignments, Final Reports, Thesis, and Dissertation is fulfilled. (Hapsari, Personal Communication, 2020).

Legal Protection. The perspective that underlies e-journal services for university libraries is the need for current, fast, and precise information. Furthermore, all research and publication information needs are considered complete, although not all libraries provide this service. The author focuses on the legal foundation in collaborating to improve the e-journal service of the College Library. The possible database for sharing existing information is the MoU.

Table 8.

List of IPDN MoU's Regarding Sharing Research and Academic Resources

MoU Partners	Valid up to Years	Cooperation Items	Information
Yeungnam University, Korea	2020	Exchange Student, Academic Material, Academic Publication, Academic Resources, and Joint Research Activities	The implementation is only an exchange student.
Fatony University, Thailand	2019	Academic exchange program (Resources, Student, selection, and tuition), Joint Research, and Publication	Only exchange students and conferences were carried out.
Universiti College Sabah Foundation, Malaysia	2019	Academic exchange program	Not running due to budget constraints
Rural Development Corporation, Malaysia	2018	Academic Cooperation	Runs a comparative study.
Indonesian National Library	2024	IPDN Library Development Cooperation	Functioning adequately, with IPDN output of 10,000 copies of books, a total of 20 sets of computer equipment for management and digital reader services, as well as access to national library resources.

Source: IPDN Cooperation Section, 2020

Table 8 shows several legal protections related to resource sharing cooperation among institutions. However, sometimes the MoU only runs on paper as legal protection, with poor implementation (Suripto, Personal Communication, 2020). This proves that the

cooperation opportunities between IPDN and several state educational institutions in the Asian region cannot be implemented perfectly. The collaboration with Yeungnam University and Fatony University was limited to student exchange. Meanwhile, the Rural Development Corporation Malaysia was limited to working visits without sharing academic resources. This is due to the limited information known to the Library apart from the budget and resources in the IPDN. The cooperation with the Indonesian National Library has been running adequately until now, with a positive impact on the IPDN, including obtaining a donation of 10,000 printed books related to government science, a total of 20 sets of computer devices used for management and digital reader library services, and complete IPDN access to national library e-resources.

Initially, the IPDN Library did not collaborate with universities in Indonesia regarding sharing electronic resources. However, this collaboration is necessary to enhance services, especially e-journals, as a reference for users in creating new higher-quality knowledge.

Research Findings and Discussion. The result showed that the librarian's human resource's support is in the very good category. Furthermore, users possess very good computer and software skills, good motivation and electronic search skills, and moderate foreign language skills. However, university libraries still lack infrastructure support due to insufficient search equipment, inadequate internet network, and limited content. Although budget support is included in the lacking category, institutional support related to the legal protection is sufficient, while sharing and using e-resources are carried out with the National Library. In addition, due to the numerous academic institutions in Asia, sharing and use of e-resources have become difficult, with poor collaborations among universities within the country.

This research is similar to Mubofu's findings which comprise of slow internet speed and lack of computer equipment with the main factors associated with preventing students from using electronic journals (Mubofu, 2019). Furthermore, it is similar to Rejeki's research, which stated that the location for e-journal access needs to be in a place with good internet connection facility (Rejeki, 2013). The objects used to carry out preliminary studies were universities with adequate infrastructure and budget support, which showed the importance of open access subscriptions by the National Library as well as the Ministry of Research and Technology. This finding was especially true of most university libraries without adequate facilities. Therefore the budget is better used for additional bandwidth, reading garden facilities, adding computer equipment, etc. Furthermore, the annual subscription fees were analyzed in accordance with the policy that covers the university's budgets. However, those already established in terms of infrastructure have excellent stakeholder policies in scientific papers publication. These universities no longer think of expensive subscription fees as long as they provide broad benefits and impacts for scientific development (Rifai, 2019).

IV. CONCLUSION

In conclusion, several shortcomings are associated with the ineffectiveness of the e-journal subscriptions to the IPDN Library, such as budget constraints, inadequate supporting devices, poor internet network, limited content, and inability to collaborate sharing/utilizing e-resources with other university libraries. Therefore, based on these conclusions, newly developed libraries or those with limited budgets do not need to mandate themselves to subscribe/buy e-journal databases at high prices. Furthermore, libraries need to take advantage of the e-resource database of the Indonesian National Library/Ministry of Research and Technology of the Republic of Indonesia (abbreviated as Kemenristekbrin) and collaborate with other universities with large resources.

Disclaimer. This conclusion only applies to new growing university libraries, especially those with limited supporting facilities and budgets, due to their inability to create a good infrastructure such as backup servers, adequate bandwidth/internet network, computer equipment, and comfortable buildings. The research tends to produce different results when the object is an advanced university library, with a large budget to buy/subscribe to electronic resources, and build adequate facilities.

Further Work. The results of this research complimented several previous studies on e-journal services. It further expands the findings assuming a similar study is carried out by directly comparing several developing objects of higher education libraries with new e-journal services.

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