CHAPTER I
INTRODUCTION

This chapter explain about background, problem formulation, objective, scope of problem, and outline of the report of the research.

1.1   Background

During the Industrial Revolution 4.0, information is needed for almost all existing agencies. According to (Pendit, 1992), Information is a set of data that is processed into something that is useful for its users. Information system is a system that is able to process data into information that can benefit the users of the system. The rapid development of information system technology has helped many activities in an agency in the form of rapid dissemination of information only with internet access.

An institution will engage in the activity of procuring goods and services through one or more providers after assessing its needs for such items and services and continuing until the provider delivers the institution's the procurement's findings (Agus, 2018). Procurement of goods is the fulfillment of the needs of an institution in the form of goods while procurement of services can be in form of construction or consultation. Procurement of goods and services in general is regulated through PERPRES No. 12 Tahun 2021 tentang Pengadaan Barang dan Jasa Pemerintah.

Universitas Andalas is one of the public high educational institutions that has goods and service procurement activities. Meeting the needs of goods and services is an important part that cannot be separated in the implementation of educational institutions. Procurement of campus goods and services is an activity to meet the needs of goods or services by campus officials both at the university level and at the faculty level which is financed by APBN (Anggaran Perancanaan

Belanja Negara) or state funds and campus funds where the process starts from identifying needs to handing over work results (Agus, 2018). The procurement of goods and services at Universitas Andalas is regulated through Peraturan Rektor No. 5 Tahun 2022 tentang Pengadaan Barang dan Jasa. UPT-PPBJ (Unit Pelaksana Teknis Pengelola Pengadaan Barang dan Jasa) or Technical Implementation Unit for Procurement Management of Goods and Services is an institution that regulates the course of procurement at Universitas Andalas which acts as a commitment-making official and procurement official.

Based on PERPRES No. 12 Tahun 2021, the process flow of a procurement generally starts from planning, preparing for procurement, conducting procurement either through self-management or by selecting suppliers, contract implementation, and ending with the handover of goods and services. The flow of a procurement at Universitas Andalas also goes through the same process. Procurement package will be preparred and Planned by Satuan Kerja or Unit Work and will be posted by UPT-PPBJ trough LPSE (Layanan Pengadaan Secara Elekronik) or Electronic Procurement Service and began to make procurement preparations. LPSE is a service unit for the electronic system of goods and services procurement established by LKPP (Lembaga Kebijakan Pegadaan Barang dan Jasa Pemerintah) or Government Procurement Policy Institute in carrying out electronic procurement of goods and services that can be accessed from lpse.unand.ac.id which display can be seen in **Figure 1.2**. LPSE records all procurement data that has been carried out by all Satuan Kerja in Universitas Andalas. UPT-PPBJ is also in charge of determining the HPS (*harga perkiraan sendiri*) or self-estimated price and criteria needed by providers after Unit Kerja determine how much ceiling cost of each package will be.
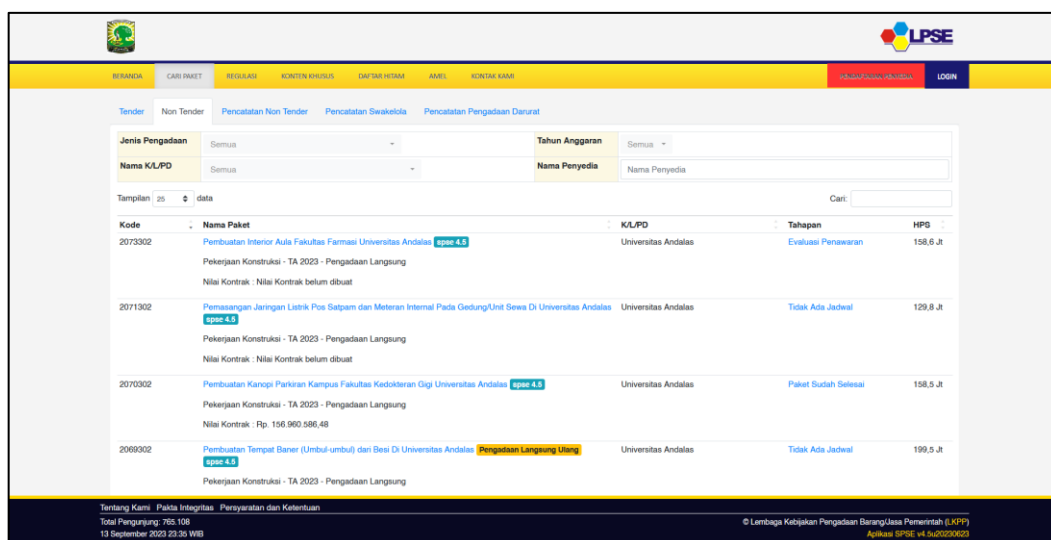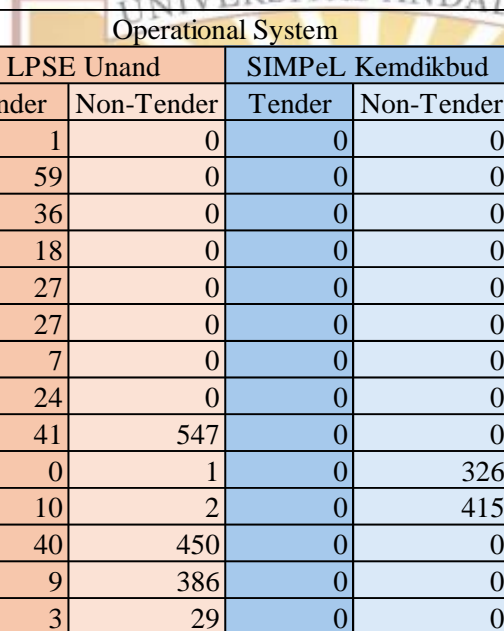
Figure 1.1 LPSE's Website

Furthermore, UPT-PPBJ will make a selection of providers who will meet the package criteria. The provider is selected based on the criteria given before and the price they offered, whether it is in accordance with HPS. After that UPT-PPBJ will offer the contract price by the provider offers. The provider will fulfil the procurement until everything is received by the Satuan Kerja that will be supervised by UPT-PPBJ.

Nowadays, Universitas Andalas carries out procurement using LPSE Unand as the main operational system. Although, based on the results of an interview with Prof. Dr. -Ing. Agus Sutanto, M.T as the head of UPT-PPBJ Universitas Andalas, apart from LPSE, Universitas Andalas has also used the SIMPeL Kemdikbud (Sistem Informasi Manajemen Pengadaan Langsung – Kemdikbud) or Direct Procurement Management Information System that can be accessed from https://simpel-lpse.kemdikbud.go.id/,which displayed in **Figure 1.5.** SIMPeL Kemdikbud was carrying out goods/services procurement activities from 2020 until 2021 only for non-tender procurement package. Based on **Table 1.1**, it can be seen that Universitas Andalas uses the SIMPeL Kemdikbud from 2020 to 2021. This is done because all collage have to do all direct procurement from SIMPeL Kemdikbud. However, Universitas Andalas have to return to using LPSE because based on the changes of Universitas Andalas to PTN-BH (Perguruan Tinggi Negeri

Badan Hukum) or Legal Entity State University, that not allowed to use SIMPeL Kemdikbud as operational system for their procurement activities. Universitas Andalas has been designated as a PTN-BH Since August 31 2021, requiring Universitas Andalas to have its own laws, including regarding the procurement of goods and services. This causes data from the procurement of goods and services of Universitas Andalas to be separated in two system so that the data is not well integrated.

Table 1.1 Number of Procurement from Several Operational System in Universitas Andalas

Period	Operational System			
	LPSE Unand		SIMPeL Kemdikbud	
	Tender	Non-Tender	Tender	Non-Tender
2011	1	0	0	0
2012	59	0	0	0
2013	36	0	0	0
2014	18	0	0	0
2015	27	0	0	0
2016	27	0	0	0
2017	7	0	0	0
2018	24	0	0	0
2019	41	547	0	0
2020	0	1	0	326
2021	10	2	0	415
2022	40	450	0	0
2023	9	386	0	0
2024	3	29	0	0

Figure 1.2 SIMPeL Kemdikbud

Based on UU Nomor 14 Tahun 2008, public information is information that is produced, stored, managed, sent, and/or received by a public agency related to the administration of a state, or within the scope of higher education. Meanwhile, a public agency is an institution related to the administration of which part or all of the funds are sourced from the state budget. Every public information is open and accessible to all users of public information and can be obtained quickly, on time, simply, and at low cost. Information disclosure at Universitas Andalas is regulated by PPID (Pejabat Pengelola Informasi dan Dokumentasi/Information Management and Documentation Officer) Unand. Information on the procurement of goods and services of Universitas Andalasis also addressed by PPID Unand as an information disseminator, but the details of the information are still regulated by UPT-PPBJ. Packages of goods and services procurement that have been completed and are still in process will be announced by PPID Unand through the PPID Unand website (https://ppid.unand.ac.id) in the "Informasi Publik" section. The display of PPID Unand can be seen at **Figure 1.3.** Based on the above opinion, it can be stated that UPT-PPBJ is a public agency because all funds in the procurement activities carried out by UPT-PPBJ come from the APBN. Therefore, UPT-PPBJ is obliged to publish public information that will be announced by PPID.

Figure 1.3 PPID Unand

Currently, LPSE Unand can be said to be a information disclosure system as well as a transactional information system owned by UPT-PPBJ. However, as a information disclosure system, LPSE Unand has not fulfilled its function as an information provider because the information displayed is in the form of raw data that has not been processed into information that can be seen on **Figure 1.1** and **Figure 1.4.** However, UPT-PPBJ does not have the authority to change the appearance and form of the Unand LPSE system because the LPSE authority only lies with LKPP. According to (Pendit, 1992), Data is the raw result of observation while information is the result of processing data that is more meaningful and impactful. So based on the explanation above, LPSE cannot be categorized as information disclosure system.

Figure 1.4 Data View of LPSE Detailed after Click

In addition, UPT-PPBJ wants to display their annual report, namely the realization of procurement records into information that is open to the public. The UPT-PPBJ annual report can be seen in **Table 1.2** and **Table 1.3** below. **Table 1.2** show record of procurement realization that show how progress and percentage of procurement activities that have been completed from each Satuan Kerja. Percentage is taken from how much of the ceiling (pagu) has been completed compared to the total ceiling of a Satuan Kerja. The data is processed using Microsoft Excel, so the data at LPSE Unand must first be transferred to Microsoft Excel and then converted into an annual report. The data taken from LPSE Unand can be seen in **Table 1.3**. UPT-PPBJ said that the use of Microsoft Excel is sufficient in making annual reports, but in terms of information disclosure, Microsoft Excel cannot handle this problem. A system is needed that is able to process data and then publish the data so that the public can access it.

Table 1.2 Record of Procurement Realization from LPSE Unand

No	Fakultas/Unit	Paket		Realisasi (Rp)		Pagu	Ket
		Total	Berjalan (*)	Pagu	Berjalan		
1	Pertanian	28	16	1,361,200,000	1,345,133,233	2,088,274,742	65%
2	Ilmu Budaya	9	1	1,445,000,000	1,154,887,172	2,079,650,000	69%
3	Teknologi Pertanian	34	6	392,027,224	388,970,836	1,511,808,988	26%
4	Peternakan	21	-	-	-	2,548,128,000	0%
5	Kedokteran	60	25	7,850,000,000	6,957,833,202	14,916,578,096	53%
6	Kedokteran Gigi	22	12	2,157,035,891	2,018,585,456	3,684,576,995	59%
7	Farmasi	21	1	200,000,000	199,034,100	2,580,000,000	8%
8	Keperawatan	8	2	325,000,000	294,460,800	925,140,000	35%
9	Teknik	73	23	2,561,298,600	2,280,969,324	11,396,817,203	22%
10	MIPA	14	2	342,000,000	328,948,500	1,789,880,428	19%
11	Ekonomi	32	10	1,459,890,000	1,283,716,730	3,024,894,359	48%
12	Hukum	23	1	150,000,000	117,802,725	3,363,080,004	4%
13	Ilmu Sosial & Politik	28	12	1,137,974,625	1,110,549,115	8,791,296,750	13%
14	Kesmas	11	2	146,380,000	144,416,550	743,586,005	20%
15	FTI	7	-	-	-	567,500,000	0%
16	Pasca	1	-	-	-	120,240,000	0%
19	Lembaga-lembaga	6	3	549,800,000	541,339,630	1,281,875,000	43%
20	Rumah Sakit	56	44	44,422,312,947	39,221,985,825	58,489,304,522	76%
21	Rektorat	129	64	39,350,694,870	35,089,318,991	58,498,839,747	67%
	Total (tanpa Pra-RKAT)	583	224	103,850,614,157	92,477,952,189	178,401,470,839	58%
	Tender Pra-RKAT (Des. 21)			17,721,364,004	16,343,655,494	17,721,364,004	
	Total (dengan Pra-RKAT)			121,571,978,161	51,432,974,485	196,122,834,843	62%

Realisasi Pengadaan Barang/Jasa Update 25/08/2023

Table 1.3 Procurement Package Record of UK Fakultas Teknik

No	Nama Paket	Pagu (Rp)	Metode Pemilihan	Sumber Dana	Kode RUP	Waktu Pemilih	Status	Penyedia	Nilai Kontrak	Pagu realisasi	Rencana Tindak Lanjut
PAKET PENGADAAN SATKER UNIVERSITAS ANDALAS YANG SUDAH DIPUBLIKASI DI- SIRUP										
UPDATE 25 Agustus 2023										
https://sirup.lkpp.go.id/sirup/ro/penyedia/kldi/PT6										
FAKULTAS TEKNIK										
*77	Sewa Kendaraan Dinas Fakultas Teknik Universitas Andalas	*160000000	E-Purchasing	Lainnya	42918573	Feb-23					
178	Sewa Kendaraan Dinas Fakultas Teknik Universitas Andalas	160,000,000	PL	Lainnya	43502418	Feb-23	Penyedia Sudah Terpilih	PT. Mulya Dana Triarga	159,840,000	160,000,000	1
179	Pengadaan Bahan Praktikum Laboratorium Departemen Teknik Mesin Universitas Andalas	110,000,000	PL	Lainnya	43502588	Feb-23	Penyedia Sudah Terpilih	KURNIAWAN	109,457,443	110,000,000	1
200	Pengadaan Peralatan Laboratorium Penelitian dan Hidrolika Lingkungan di Departemen Teknik Lingkungan Fakultas Teknik Unand	74,703,000	PL	Lainnya	43625003	Feb-23	Penyedia Sudah Terpilih	CV.Telaga Ruyung	63,825,000	74,703,000	1
201	Pengadaan Peralatan Laboratorium Udara dan Mikrobiologi Lingkungan Departemen Teknik Lingkungan Fakultas Teknik Unand	85,470,000	PL	Lainnya	43625022	Mar-23	Penyedia Sudah Terpilih	PT.SUMINDO CITRA ASSAYOSHI	Rp 82,695,000	85,470,000	1
204	Pengadaan Bahan Praktikum Laboratorium Departemen Teknik Lingkungan Fakultas Teknik Unand	49,850,000	PL	Lainnya	43641835	Mar-23					
205	Elektro Fakultas Teknik Universitas Andalas	30,000,000	PL	Lainnya	43641914	Feb-23					
206	Pengadaan Bahan Praktikum Laboratorium Departemen Teknik Industri Fakultas Teknik Universitas Andalas	45,000,000	PL	Lainnya	43641946	Mar-23					
207	Pengadaan Poster dan Bahan Praktikum Departemen Teknik Sipil Fakultas Teknik Universitas Andalas	84,000,000	PL	Lainnya	43641974	Feb-23					
208	Bahan Praktikum Laboratorium DTL untuk Kegiatan Riset Kolaborasi Indonesia Undip dan UI	12,582,000	PL	Lainnya	43642019	Mar-23					
209	Pengadaan Peralatan Laboratorium Departemen Teknik Industri Fa	186,818,000	PL	Lainnya	43642081	Mar-23					
210	Pengadaan Peralatan Laboratorium Departemen Teknik Sipil Fakult	193,000,000	PL	Lainnya	43642114	Feb-23					
211	Pengadaan Peralatan Laboratorium Departemen Teknik Mesin Faku	125,000,000	PL	Lainnya	43643022	Mar-23					
212	Pengadaan Peralatan Laboratorium Penelitian dan Hidrolika Lingku	74,703,000	PL	Lainnya	43643050	Mar-23					
213	Pengadaan Seragam PimNas Fakultas Teknik Universitas Andalas	24,000,000	PL	Lainnya	43643122	Mar-23					
214	Pemeliharaan/Perbaikan Teknologi Informasi dan Komunikasi (TIK)	30,000,000	PL	Lainnya	43643168	Mar-23					
215	Pemeliharaan/Perbaikan Sarana Air, Listrik dan Jaringan Internet di	335,500,000	PL	Lainnya	43643217	Jan-23					
216	Perbaikan Eksterior Gedung Departemen Teknis Sipil Fakultas Tekni	120,000,000	PL	Lainnya	43643287	Feb-23					
217	Perbaikan Interior Departemen Teknik Sipil Fakultas Teknik Univers	150,000,000	PL	Lainnya	43643351	Mar-23					
218	Pengadaan Toner dan Cartridge FT dan Departemen Di Fakultas Tel	114,880,000	PL	Lainnya	43643427	Mar-23	Penyedia Sudah Terpilih	CV. GUNAWAN	107,764,350	114,880,000	1

Based on the above problems, it can be concluded that UPT-PPBJ needs a solution that is able to process data into information and publish the information. This problem can be solved with a website-based information system. Information system consists of two words, namely system which means a collection of elements that are put together to achieve a goal, and information means a set of data that is processed to be better understood. The information system based on the description above is a collection of elements that are put together to process data into information that is easily understood. UPT-PPBJ cannot simply transfer data between information systems because they do not have access to the databases of the two information systems and applicable regulations do not allow data from one system to be in another information system. UPT-PPBJ does not have an instrument capable of retrieving all data on the operational system quickly, but must do it manually which will take a long time. Therefore, an instrument that can collect automatically is needed, namely website scrapping.

Based on the explanation above, a new information system is needed that can integrate data from the two information systems. The information system designed must fulfill the resolution of the problem, namely: being able to retrieve data from both operational system, integrate data and process it into information, and be able to publish the information. Therefore, this research was designed with the title "Design of Information Disclosure System for Goods and Services Procurement at Universitas Andalas".

1.2   Problem Formulation

Based on previously mentioned in background, the problem formulation of this research is how to design an information system that can collect data from separated information system, integrating, and turning it into information disclosure related to the procurement of goods and services in Universitas Andalas.

1.3 Objective

Objective of this research is to design an information system that can collect data from separated information system, integrating, and turning it into information disclosure related to the procurement of goods and services in Universitas Andalas.

1.4 Scope of Problem

Data used in this research are only for tender and non-tender package.

1.5 Outline of The Report

The study contains six chapters as follows:

CHAPTER I INTRODUCTION

This chapter explain about background, problem formulation, objective, scope of problem, and outline of the report of the research.

CHAPTER II LITERATURE REVIEW

This chapter contain theories and references that be used in this research.

CHAPTER III RESEARCH METHODOLOGY

This chapter contain research methodologies to solve the problem of the research.

CHAPTER IV SYSTEM DESIGN

This chapter contain phases of system design based on Waterfall Method.

CHAPTER V ANALYSIS

This chapter contains analysis from system that already developed.

CHAPTER VI CONCLUSION

This chapter contains final phase of this research, namely conclusion and suggestions.