

# The Role of the Core Banking System: the Case of Bank Aceh's Syariah Conversion

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## **Keywords**

*Conventional Bank Conversion, Islamic Bank, Core Banking System, Case Study, Bank Aceh*

## **Abstract**

The aim of this study is to assess the transformation of a traditional banking system into an Islamic banking system. Utilizing a case study approach and drawing on asset-liability theories, Bank Aceh is chosen for examination of both pre- and post-conversion. The results indicate that the implementation of Qanun (Islamic law) expedited the conversion process in Aceh, by mandating that financial institutions in the province operate under Islamic principles. A unique aspect of this research is the exploration of the conversion process from an information technology perspective, specifically examining the role of the core banking system in transitioning from conventional to Islamic banking. Additionally, the study sheds light on the accounting treatment within the core banking system during the conversion process, a previously unexplored aspect

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## 1. Introduction

This section presents the history of Bank Pembangunan Daerah Aceh (Bank Aceh or the Aceh Regional Development Bank, commonly referred to as Bank Aceh) before and after its conversion to a fully-fledged Islamic bank, the history of PT. Collega Inti Pratama, and implementation of a Syariah Core Banking System at Bank Aceh.

### 1.1. History of Bank Aceh and Its Conversion to Bank Aceh Syariah

The Bank Aceh website reveals the history of the bank (Bank Aceh, 2021). The Aceh Regional Development Bank (Bank Pembangunan Daerah/Bank Aceh) on September 7, 1957, as the initiative of the Transitional Regional Government Council of Aceh Province, after obtaining approval from the Transitional Regional People's Representative Council through decree number 7/DPRD/5, entitled "PT. Bank Kesejahteraan Atjeh, NV". On April 7, 1973, the Governor of the Special Region of Aceh issued decree No.54/1973 regarding the transfer of the bank to the Aceh Regional Development Bank. This process was officially completed on August 6, 1973. Two and a half decades later, after undergoing several changes in deeds and legal status, on April 21, 1999, the legal entity shifted to once more become a Limited Liability Company (Perseroan Terbatas or PT) by notary deed, taking up the name PT. Bank Pembangunan Daerah Aceh (PT. Bank Bank Aceh).

Bank Aceh began its Islamic banking activities with a license from the Bank of Indonesia No.6/4/Dpb/BNA dated October 19, 2004, which allowed them to open an Islamic Branch in the bank's commercial activities. On November 5, 2004, the bank began operational activities based on Islamic principles through its Islamic Business Unit. Following the results of an Extraordinary General Meeting of Shareholders on May 25, 2015, Bank Aceh changed its entire business activities, shifting from the conventional system to a comprehensive Islamic (syariah) system. This was based on the incorporation of a target in the bank's 2012 business plan, which aimed to establish an Islamic Commercial Bank by 2016, and was supported by the issuance of Qanun (Islamic law issued by the Aceh government), specifically No.16/2013, which stated that the provincial government would inject an additional 1 trillion rupiah of capital into Bank Aceh, and 500 Billion for Bank Aceh Islamic Business Unit. Bank of Indonesia regulation No.21 of 2008 also stated that, after 15 years, the Islamic business unit must carry out a Spin Off (process of separating from its parent bank) to become islamic comercial bank, but the final decision is to convert to Islamic commercial bank compared to carrying out a Spin Off of islamic business unit. The results of the Extraordinary General Meeting thus became the

basis for the start of the conversion, after which Bank Aceh established an internal conversion team, supervised by the Financial Services Authority (Otoritas Jasa Keuangan/OJK), to implement the bank’s conversion. The stages of doing so can be seen in the conversion roadmap in Figure 1.

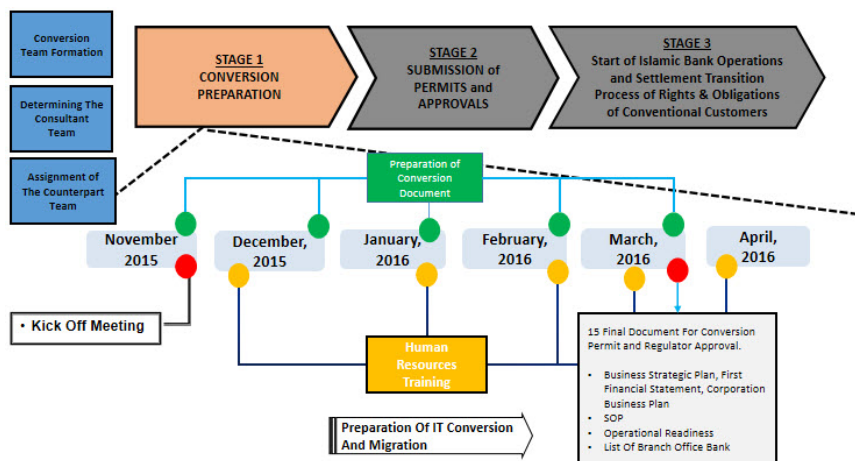


Figure 1. Roadmap of Bank Aceh Conversion Process  
 Source: Bank Aceh (2016)

The conversion process began with the formation of external and internal teams. The external team was a team from the government, while the internal team was a team from Bank Aceh’s internal structure. In the government, the team was led by the Governor of Aceh, with the Provincial Secretary acting as the team coordinator, assisted by the District Secretary at the district level. Then in the internal team, the board of commissioners and the Syariah Supervisory Board acted as advisors, while the board of directors served as the project team leader. The head of the Islamic Business Unit Division acted as the project conversion secretary. Broadly speaking, the conversion work was divided into eight main tasks: 1. Licensing and Approval from the Regulator, 2. Business Mapping and Conversion of Standard Operating Procedures (SOPs), 3. Socialization, Human Resources, Organizational Structure and Training, 4. Bank Strategic Plan, 5. Information Technology (IT) and Infrastructure, 6. Accounting Policy and Reporting to the Regulator, 7. Preparation of SOPs, and 8. Legal Aspects of the Company and Islamic Commercial Banking Products.

The tasks above are based on OJK Regulation No.64/POJK.03/2016, which states that where a conventional bank will change its business activities to become an Islamic bank, the bank must adjust its legal documents; meet capital requirements; adjust the requirements of the Board of Directors and Board of Commissioners;

appoint a Syariah Supervisory Board; and present initial financial statements as an Islamic Bank. In addition, several requirements must be attached when applying for a license, including a set of vision and mission of changing business activities into an Islamic bank; draft changes to the articles of association; names and identities of prospective Controlling Shareholders (Pemegang Saham Pengendali/PSP); prospective members of the Board of Directors; prospective members of the Board of Commissioners and prospective members of Syariah Supervisory Board); Islamic Bank business plan; feasibility study regarding market opportunities and economic potential; plans for customer rights and obligations; proof of operational readiness; and the bank's office network along with its location.

In its implementation, Bank Aceh was assisted by a consultancy company named Karim Consultants to prepare project plans and frameworks. In addition, Karim Consultants assisted in terms of undertaking training and community socialization, developing company strategic plans and SOPs, and acting as coordinators to orchestrate other consultants. Islamic banks require different IT systems and infrastructure to conventional banks, so Bank Aceh appointed PT. Collega Inti Pratama as its IT consultant for the core banking system application. It carried out conversion and migration from a conventional banking system (and its Islamic Business Units) to become Islamic commercial banks, including data mapping, chart of accounts, mapping conventional products, and Core Banking accounting and reporting to the regulator. PT. Collega Inti Pratama was a vendor of conventional Core Banking applications and Islamic Business Units that were running before the conversion, thus it was expected to smoothly facilitate the conversion and migration process.

This sort of conversion process has, of course, both pros and cons. Those who support the conversion of conventional banks to Islamic banks do so because of their desire to fully implement Islamic law. On the other hand, those who are against the implementation of the Qanun assume that Islamic banks have problems in providing facilities and services that meet the needs and demands of the people, as well as the poor perception and literacy level of the community regarding Islamic banking (Alamsyah et al., 2021). A feasibility study through a survey of Bank Aceh customers was conducted by the project team, to ensure the conversion process as one of the licensing requirements to the regulator, and the result showed that 97% of clients from Bank Aceh would choose remain as customers if the bank was to convert to Bank Aceh Syariah (Habir et al., 2020). Additionally, Yasid et al. (2022) found that in the conversion process, the majority of employees have a strong belief in a brighter future after the conversion process to a syariah system.

This is in line with the strength, weakness, opportunity, and threat (SWOT) analysis of the conversion plan, which identified that Bank Aceh had good strengths and opportunities, because it has the widest-reaching banking network in Aceh and is supported by Aceh's demographics, as the population is majority Muslim (Deddy, 2020).

After successfully undergoing the conversion process and running the bank based on Islamic principles since September 2016, Bank Aceh has become more established and has had a positive impact on the welfare of the Aceh community, according to the result of research on 101 respondent from bank aceh customer. (Yoesoef et al., 2020). In terms of the Islamic banking market share in Indonesia after the conversion, Bank Aceh was ranked third, representing 5% of the market share spread in 2021 (Ribowo et al., 2020). In terms of financial performance, after the conversion, there was a significant change in non-performance financing, with the risk of financing becoming lower. In addition, there was a significant difference in return on assets (ROA), as, although it decreased, Bank Aceh's net profit still experienced positive growth, while other factors such as financing to deposit ratio (FDR), good corporate governance (GCG), and capital adequacy ratio (CAR) did not experience significant differences (Budianto, 2021). Nevertheless, the decision was timely, especially after the issuance of Qanun No. 11 of 2018, which ordered all conventional banks in Aceh to become Islamic financial institutions.

### **1.2. History of PT. Collega Inti Pratama**

PT. Collega Inti Pratama (referred to as Collega) is an IT company established on February 3, 2001 (Collega, 2023) that focuses on developing banking technology. It has become the market leader for the core banking systems of Regional Development Banks throughout Indonesia. The core banking system is known as OLIBs, which is an acronym for OnLine Integrated Banking System.

OLIBs is a local company that has expertise and competence in the field of technology and is supported by experts who have proficiencies in banking. Collega products are grouped into three, namely: Modular and Open Banking Products, which consist of Olibs 724 Conventional products, Olibs 724 Syariah, Olibs Open API, Digital Lending and Treasury; Omni Banking Products, which consist of Olibs Switching 724 products, Olibs ESB Middleware, Olibs Digital Ecosystem, Olibs CMS Corporate, Olibs Kasda, Olibs Samsat, Olibs Internet Banking and Olibs Mobile Banking; and Smart Banking Products, which consist of APOLO products, Antasena, Olibs OBOX, Olibs GoAML, Olibs SCV, Olibs BI & DWH, Olibs Statement of Financial Accounting Standards (Pernyataan Standar Akuntansi Keuangan/PSAK) 71 and Olibs PSAK 73. Collega also provides a Data Center service located in Sentul,

Bogor, and a Disaster Recovery Center located in BSD Tangerang.

To date, Collega has become a banking IT outsourcing service partner spread across 13 provinces for banking product, consisting of two Islamic Commercial Banks (Bank Aceh Syariah, and Bank NTB Syariah), three Islamic Business Units (Bank Jago, Bank Sumatera Utara, and Bank Nagari), and one digital bank (Bank Aladin), as well as nine conventional banks (Bank Sumatera Utara, Bank Nagari, Bank Jambi, Bank Bengkulu, Bank Kalimantan Tengah, Bank BPD Bali, Bank Sulawesi Tengah, Bank NTT, and Bank Papua). As for non-banking product partners, Collega has worked with the Local Revenue Offices of North Sumatra, Papua, West Papua, and six provinces (124 cities/regencies).

To maintain partner trust in managing outsourcing services, Collega has implemented the ISO 9001:2008 Quality Management System standard, ISO 27001 Information Security Management System Certification, and PCI-DSS Certification (Payment Card Industry Data Security Standard) as a guarantee of the quality of its products. In December 2018, Collega officially became part of the Telkom Group with a 70% ownership share, under Telkom's subsidiary PT. Sigma Cipta Caraka (Telkomsigma). The remaining 30% is still owned by previous owner, PT. Upperco Usaha Maxima.

### 1.3. Implementation of Syariah Core Banking

The experience of Collega in implementing core banking systems in Islamic commercial banks and Islamic Business Units between 2010 and 2022 is demonstrated in Table 1.

Table 1. Experience of Collega in working with core banking system implementation at Islamic commercial banks and Islamic Business Units.

No	Bank	Project	Year
1	Bank Jabar Banten Syariah	- Core banking system migration from Misys to OLIBS with an implementation duration of 3 months.	- 2010
		- Upgrade OLIBs Core Banking to Version 724	- 2012
2	Bank Aceh Syariah	- Implementation of OLIBs for islamic business unit.	- 2007
		- Conversion of conventional business and UUS into an Islamic Commercial Bank, upgrade of OLIBs Core Banking to version 724, and upgrade of Switching to version 724.	- 2016
3	Bank Sumatera Utara	- Implementation of OLIBs for islamic business unit	- 2007
		- Upgrade OLIBs Core Banking to Version 724	- 2018
4	Bank NTB	- Implementation OLIBs for islamic business unit.	- 2009
		- Conversion of conventional business and UUS into an Islamic Commercial Bank, upgrade of OLIBs Core Banking to version 724	- 2018
5	Bank Nagari	- Implementation of OLIBs for islamic business unit.	- 2007
		- Upgrade of OLIBs Core Banking to version 724	- 2018
6	Bank Mandiri Taspen	- Implementation of Olibs 724 islamic business unit.	2019
		- Olibs API	

7	Bank Jago	- Implementation of Olibs 724 Syariah, - Financing Module	2020
8	Bank Aladin	- Implementation of Olibs 724 Syariah - Olibs API	2022

This case study consists of four sections. The following section provides an overview of syariah core banking system while section three discusses the conversion process. Finally, the paper concludes with recommendations for further case studies.

## 2. Literature Review

This section offers literature studies on Syariah core banking system; OLIBs 724; and conversion regulation.

### 2.1. Syariah Core Banking System

The core banking system is an electronic system in the form of an application for the end process of all banking transactions that occur throughout the day, including updating data in bank bookkeeping, including customer functions, savings, loans, accounting, and reporting (OJK, 2016a). An Islamic bank is a bank whose business activities are based on Syariah principles (Banking Law No. 21, 2008). Therefore, a Syariah core banking system is a core banking system used by Islamic banks, where at least customer functions, savings, loans, accounting, and reporting are implemented under Islamic principles.

The Syariah core banking system differs from the conventional core banking system in that it no longer recognizes the concept of interest. Instead, the Syariah core banking system operates on the principle of profit sharing (Fatwa DSN No.15, 2000). The development of the Syariah core banking system must consider several aspects, including the business needs of Islamic banks, regulatory requirements, applicable Islamic accounting standards, and conformity with fatwa in Islamic banking as determined by the Majelis Ulama Indonesia (MUI, National Ulama Council) National Standards Council.

### 2.2. Syariah Core Banking System OLIBs 724

OLIBs 724 Syariah is a core banking system that can serve banking transactions seven days a week, 24 hours a day, non-stop. It is flexible, parameterized, and user-friendly (Collega, 2023). OLIBs724 already supports Islamic business and multi-currency.

#### 2.2.1. The Architecture of Olibs 724 Syariah Application

According to Gartner, the core banking system architecture is a back-end system structure that handles daily banking transactions and posts modifications

to accounts and other financial records (Gartner, 2024). Commonly, core banking systems are connected to general ledger systems and reporting tools (Kvartalnyi, 2023). The architecture of the Olibs 724 Syariah adopts a modern core banking system, offering service-oriented architecture-based and enables real-time processing (Kumar *et al.*, 2019). The architecture of the Olibs 724 Syariah core banking system application can be seen in Figure 2.

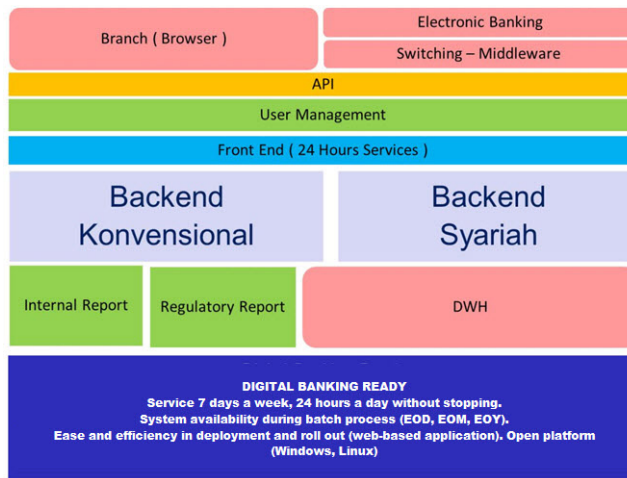


Figure 2. Architecture of Core Banking Application PT.Collega Inti Pratama  
Source: Collega (2022)

The Olibs 724 Syariah core banking application consists of several application layers. The topmost layer is a web-based application layer. For surrounding applications, it uses an electronic banking application that is connected to the layer below using a switching-middleware application. The core banking application already accommodates closed Application Programming Interface (API) and open API, handled by the API layer. Then, for application users, it will be handled at the user management layer. For transactions that run 24 hours non-stop, it is connected with the front end application. Only then at the backend layer are the applications made separately for conventional and syariah banks. For conventional banks, it uses the conventional backend application, while for syariah banks, it uses the syariah backend application. The next layer is the reporting layer which consists of internal reports, regulatory reports, and a data warehouse for the needs of management information systems.

### 2.2.2. Olibs 724 Syariah Application Module

Products in Islamic banking are divided into three groups: fund collection products, consisting of Islamic current accounts, Islamic savings, and Islamic deposits; fund distribution products, consisting of financing based on mudhārabah



contracts, financing based on musyārah contracts, financing based on murābahah contracts, financing based on salam contracts, financing based on istishna contracts, financing based on ijārah contracts, financing based on qardh contracts, and multi-service financing; and service products, consisting of Islamic import letters of credit, Islamic bank guarantees and foreign exchange (sharf) (BI, 2008).

The modules in the Olibs 724 Syariah core banking system has developed all products that exist within the codification of Islamic banking products, in addition to other modules according to the needs of Collega’s clients. The modules developed in the Olibs 724 Syariah core banking system can be seen in Figure 3.



Figure 3. Olibs 724 Syariah Application Module PT.Collega Inti Pratama  
Source: Collega (2022)

The development of the Olibs 724 Syariah application is based on contracts in Islamic banking. The development of this model is in line with the principles of Islamic banking, which does not recognize maysir (gambling), gharar (uncertainty), and ribā (usury) (Banking Law No.21, 2008). For the type of fund collection module, the developed modules are Wadi’ah savings module and Mudhārabah savings module, Wadi’ah current account module and Mudhārabah current account module, Mudhārabah deposit module, and Mudhārabah investment certificate module. For fund distribution products, the developed modules are buying and selling modules through Murābahah, Salam, and Istishna contracts, profit-sharing modules through Mudhārabah, Musyārah, diminishing Musyārah, financing of Islamic current account, pawning, and Mudhārabah investment certificate as well as a loan fund module with Qardh contract. Other modules besides fund collection and fund distribution are banking service modules such as transfer services, bank

guarantees, and other modules based on fee-based income. All these modules are integrated into the bookkeeping module, and accounting records use accrual-based accounting in their recognition and profit distribution using a cash basis. In terms of profit sharing, the Olibs 724 Syariah application also accommodates income smoothing by adding profit sharing from the bank's portion according to expected income, but when profit sharing exceeds expected income, the amount of profit sharing is distributed as is without being reduced first.

The accounting of the Olibs 724 Syariah application is developed based on the Guidelines for Islamic Banking Accounting and PSAK (Pernyataan Standar Akuntansi Syariah or Statement of Syariah Accounting Standard) Syariah, such as PSAK 102 for Murābahah, PSAK 103 for Salam, PSAK 104 for Istishna, PSAK 105 for Mudhārabah, PSAK 106 for Musyārakah, PSAK 107 for Ijārah, and specifically Murābahah with annuities using PSAK 55/50.

The profit sharing of Olibs 724 Syariah is calculated daily using the population data from the previous month and using the HI-1000 index or index that used to calculate the investment return per Rp.1000. In addition to profit distribution with non-binding Mudhārabah contracts (non-restricted investment), profit distribution can also accommodate binding mudhārabah contracts (restricted investment) with profit sharing done per project, by the investor, and the distribution of project funds (Mudhārabah Muqayadah).

### **2.3. Conversion Regulation**

The conversion from a conventional bank to an Islamic bank means a complete business transformation from ribā-based banking to Islamic ribā-free banking (Suharto, 2018). In Indonesia, a conventional bank may only become an Islamic bank with the permission of OJK. This is done through the issuance of a business activity change license (POJK, 2016). This regulation was made to support national economic growth by creating banking institutions that can serve all layers of society. Islamic banks, as part of the national banking system, need to be developed in a sound and strong manner so that they can provide banking services for the community. One way to achieve this is through the conversion of conventional banks into Islamic banks. This change must be supported with sufficient capital and professional management so that sound and resilient Islamic banks can be created. In addition, the conversion of conventional banks into Islamic banks is intended to accommodate the increasing public demand for the existence of Islamic banking and the interest of investors to enter the Islamic banking industry (Beck *et al.*, 2013).

### 3. Result and Discussions

This section discusses the role of core banking systems, COA data mapping and migration, third party funds, credit product mapping, accounting journals, financial statements, as well as the migration and conversion process.

#### 3.1. The Role of Core Banking System in the Conversion Process

The conversion strategy of Bank Aceh in carrying out the conversion is the ‘Big Bang’ strategy, where changes in systems, business, and operations are carried out simultaneously for all offices at the same time. This is where the core banking system becomes critical, as it is one of the determinants of the bank’s readiness for and success of conversion. At Bank Aceh, the total network of offices to be migrated and converted was 137 offices, with an ATM network of 127 units, alongside a total number of credit customers of 98,317 and 1,151,775 Third Party Fund (Dana Pihak Ketiga/DPK) customers (Bank Aceh, 2016).

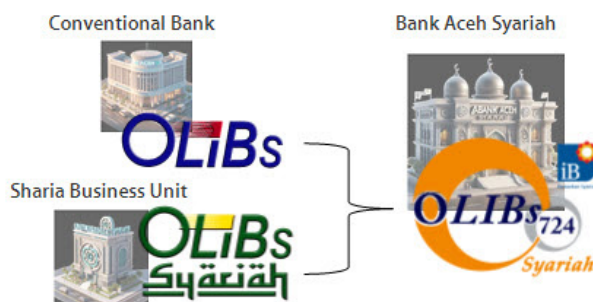


Figure 4. Conversion of Core Banking System  
Source: Collega (2015)

The core banking system used before the conversion consisted of two different core banking systems. For conventional business, CBS OLIBs Conventional was used, while for Islamic business units, CBS OLIBs Syariah was used. Both systems are provided by Collega.

#### 3.2. COA Data Mapping and Migration

The general ledger of a business contains an index of all the financial accounts, called a chart of accounts (COA). It’s an organizing tool that enumerates every financial transaction a business does within a given accounting period, broken down by category and line item. The purpose of the COA is to arrange finance and provide interested parties, including shareholders and investors, with a more transparent picture and comprehensive of a company’s financial health (Liberto, 2024).

The COA of an Islamic commercial bank differs from that of a conventional bank, as the business operations between conventional and Islamic banks are different, and so are the financial reports presented (IAI, 2000). Therefore, during the transition from a conventional bank to an Islamic bank, the COA must be adjusted. This becomes one of the bank’s policies in the conversion process. The value of each account will have its balance moved according to the new target account, allowing for the merging of accounts from many accounts into one account, or the splitting of an account from one account into many accounts. Table 2 provides an example of how COA mapping is done during conversion.

Table 2. Mapping COA Conventional, UUS and BUS

Islamic Bank Chart Of Account										Conventional Mapping		Islamic Business Unit Mapping		
Ref	PD	Level	Sandi	Sub	Sub	Nomor	Narasi	Nominal	REF	URAIAN	Nominal		Nomor	Narasi
1		01	LSMR	Sandi	Sandi 2	Akun	Akun	(GSSL)	IA	IA	(IA)		Akun	Akun
		1	100			101	Kas						101	KAS
		2				10101	Kas					10101	KAS	10101
		3	100			1010101	Kas Besar/Operasional		001010101001	Kas Besar/Operasional		1010101	Kas Besar	1010101
		2				10102	Kas Kecil							10104
		3	100			1010201	Kas Kecil		001010201001	Kas Kecil		1010201	Kas Kecil	1010401
		2				10103	Kas Head Teller							10102
		3	100			1010301	Kas Head Teller		001010301001	Kas Head Teller		1010301	Kas Head Teller	1010201
		2				10104	Kas Teller							10103
		3	100			1010401	Kas Teller		001010401001	Kas Teller 1		1010401	Kas Teller	1010301
									001010401002	Kas Teller 2				1010302
									001010401003	Kas Teller 3				1010303
									001010401004	Kas Teller 4				
									001010401005	Kas Teller 5				
		2				10105	Kas Intransit							
		3	100			1010501	Kas Intransit		001010501001	Kas Intransit		1010701	Cash In Transit	
		2				10106	Kas ATM							10105
		3	100			1010601	Kas ATM		001010601001	Kas ATM 1		1010601	Kas ATM 1	1010501
									001010601002	Kas ATM 2		1010602	Kas ATM 2	
									001010601003	Kas ATM 3		1010603	Kas ATM 3	
									001010601004	Kas ATM 4		1010604	Kas ATM 4	
									001010601005	Kas ATM 5		1010605	Kas ATM 5	
									001010601006	Kas ATM 6		1010606	Kas ATM 6	
									001010601007	Kas ATM 7		1010607	Kas ATM 7	
									001010601008	Kas ATM 8		1010608	Kas ATM 8	
									001010601009	Kas ATM 9		1010609	Kas ATM 9	

Source: Collega (2024)

COA mapping is one of the parameters used by the core banking system conversion team as a basis for transferring balances between accounts. This mapping also serves as a reference during proofing or the process of proving whether this COA data migration is appropriate or not. COA mapping is an integral part of the conversion process and becomes a part of the historical log that must be stored as audit material for the conversion process, both by the bank’s internal auditors, independent auditors, and regulatory auditors.

### 3.3. Third Party Funds Product Mapping and Migration

At Bank Aceh, third party fund (Dana Pihak Ketiga/DPK) products, which consist of current accounts, savings, and deposits, were mapped to Islamic third party products. These include Wadi’ah Current Account and Mudhārabah Current Account products, Wadi’ah Savings and Mudhārabah Savings products, as well as Mudhārabah Deposit products. The determination of this product mapping

is following the Bank’s policy by looking at the characteristics of the previous products, for example, whether the conventional product received interest services or not, the type of customers from the account whether it is an individual customer or a business entity, and other characteristics such as the segment of the product that can determine several existing products can be made into one product in the target product, or the product is separated into different products later.

Table 3. DPK Product Mapping

APP CODE	OLD PRODUCT CODE	NOTED	DESCRIPTION	MAPPING	NEW PRODUCT CODE	ISLAMIC BANK PRODUCT DESCRIPTION	CONTRACT TYPE
02	01	UUS	TABUNGAN WADIAH	01	01	SIMPEDA REGULER WADIAH	WADIAH
02	03	UUS	TABUNGANKU	02	02	TABUNGANKU REGULER WADIAH	WADIAH
02	07	KONVEN	TAHARAH	04	04	TAHARAH	WADIAH
02	02	UUS	TABUNGAN TAHARAH				
02	03	KONVEN	TABUNGAN SIMPEL	05	05	SIMPEL WADIAH	WADIAH
02	01	KONVEN	TABUNGAN SIMPEDA				
03	01	UUS	TABUNGAN MUDHARABAH	21	21	SIMPEDA REGULER MUDHARABAH	MUDHARABAH
02	21	KONVEN	TABUNGAN SIMPEDA				
03	04	UUS	TABUNGAN MUDHARABAH	22	22	SIMPEDA	MUDHARABAH
02	18	KONVEN	TAB SIMPEDA PEMERINTAH	23	23	SIMPEDA PROGRAM PEMERINTAH / SW	MUDHARABAH
02	19	KONVEN	TAB SIMPEDA SWASTA				
02	04	KONVEN	TAB SIMPEDA BPR				
03	02	UUS	TABUNGAN MUDHARABAH BANK	24	24	SIMPEDA PROGRAM BPR	MUDHARABAH
02	08	KONVEN	TABUNGAN SIMPEDA GURU NON PNS	25	25	SIMPEDA PROGRAM GURU NON PNS	MUDHARABAH
02	09	KONVEN	TABUNGAN SIMPEDA GURU NON PNS	26	26	SIMPEDA PROGRAM GURU NON PNS	MUDHARABAH
02	10	KONVEN	TABUNGANKU	31	31	TABUNGANKU REGULER MUDHARABAH	MUDHARABAH
02	13	KONVEN	TABUNGANKU BPR				
02	14	KONVEN	TABUNGANKU BANK PEMERINTAH	32	32	TABUNGANKU PROGRAM	MUDHARABAH
02	15	KONVEN	TABUNGANKU BANK SWASTA				
03	03	UUS	TABUNGAN SIMPEL IB	33	33	SIMPEL MUDHARABAH	MUDHARABAH
02	11	KONVEN	TABUNGAN BOS	34	34	TABUNGAN BOS	MUDHARABAH
02	23	KONVEN	TABUNGAN BSA LAKU PANDAI	36	36	BSA LAKU PANDAI	MUDHARABAH
02	06	KONVEN	TABUNGAN TRIPAT ABP			TIDAK DI MAPPING	

Source: Collega (2024)

Mapping of third party fund products determines the COA mapping especially for the third party fund products ledger, mapping of data conventional account at the database and table level during conversion, and as well as being a reference during migration and proofing conversion results. In addition, the product parameters of each will adjust according to the new products. Specifically for the Islamic business unit products, there is no change in the contract, but it is still possible for product changes to occur, due to the renumbering of products, and the separation or merging of products in Islamic commercial banks.

### 3.4. Credit Product Mapping and Migration

Conventional credit products can be grouped into three major groups: consumptive credit products, working capital loans, and investment loans. For conventional loans, PSAK 55/50 is used in its accounting, while for the Islamic business unit, accounting still uses PSAK 102 for Murābahah and other PSAKs according to each contract. So, in the process of mapping credit products, only conventional credit products are mapped; for Islamic business unit products, there are no changes. Existing credit products are then mapped to new financing

products in the Islamic bank. For Murābahah financing, following the bank’s policy using PSAK 55/50, so islamic business unit Murābahah financing products using PSAK 102 are maintained until closed or paid off; subsequent Murābahah accounts will use Murābahah products with the PSAK 55/50 accounting method. CBS Olibs 724 Syariah accommodates both PSAK 102 and PSAK 55/50 for Murābahah products in its system.

Table 4. Credit and Financing Product Mapping

APP CODE	OLD PRODUCT CODE	NOTE	DESCRIPTION	APP CODE	NEW PRODUCT CODE	RENUMBERIN	ISLAMIC BANK PRODUCT DESCRIPTION	CONTRACT
05	01	UUS	MURABAHAH MODAL KERJA	05	01	01	MURABAHAH MODAL KERJA	MURABAHAH
05	02	UUS	MURABAHAH INVESTASI	05	02	02	MURABAHAH INVESTASI	MURABAHAH
05	03	UUS	MURABAHAH KONSUMSI	05	03	03	MURABAHAH KONSUMSI	MURABAHAH
08	01	UUS	UJRAH RUKO PUSAT PERTOKOAN PANCOR	08	01	01	UJRAH RUKO PUSAT PERTOKOAN PANCOR	UJRAH
08	02	UUS	UJRAH RUKO PASAR UMUM MASBAGIK	08	02	02	UJRAH RUKO PASAR UMUM MASBAGIK	UJRAH
08	03	UUS	UJRAH RUKO PASAR UMUM AIKMEI	08	03	03	UJRAH RUKO PASAR UMUM AIKMEI	UJRAH
08	04	UUS	MULTIUSA TAHARAH SEJAHTERA-UMROH	08	04	04	MULTIUSA TAHARAH SEJAHTERA-UMROH	UJRAH
08	05	UUS	MULTIUSA TAHARAH SEJAHTERA-PENDIDIKAN	08	05	05	MULTIUSA TAHARAH SEJAHTERA-PENDIDIKAN	UJRAH
08	06	UUS	MULTIUSA TAHARAH SEJAHTERA-KESEHATAN	08	06	06	MULTIUSA TAHARAH SEJAHTERA-KESEHATAN	UJRAH
08	07	UUS	MULTIUSA TAHARAH SEJAHTERA-PERNIKAHAN	08	07	07	MULTIUSA TAHARAH SEJAHTERA-PERNIKAHAN	UJRAH
09	01	UUS	PMKS UMUM MUDHARABAH	09	01	01	PMKS UMUM MUDHARABAH	MUDHARABAH
09	02	UUS	PEMBIAYAAN MUSYARAKAH UMUM	09	02	02	PEMBIAYAAN MUSYARAKAH UMUM	MUSYARAKAH
11	01	UUS	TALANGAN HAJI	11	01	01	TALANGAN HAJI	QARDH
04	03	KONVEN	Kredit Modal Kerja - PUNDI	05	21	21	PMKS - PUNDI	Murabahah
05	03	KONVEN	Kredit Modal Kerja - PUNDI	05	21	21	PMKS - PUNDI	Murabahah
04	06	KONVEN	Kredit Modal Kerja - KREATIF	05	22	22	PMKS - KREATIF	Murabahah
05	06	KONVEN	Kredit Modal Kerja - KREATIF	05	22	22	PMKS - KREATIF	Murabahah

Source: Collega (2024)

Even though there are no changes to contracts for the Islamic business unit’s financing products, they are still included in the mapping process. This is because product codes may be renumbered and products merged or separated following the mapping of credit and financing products.

### 3.5. Accounting Journal Mapping

#### 3.5.1. Murābahah Accounting Journal Mapping

For credit products that are mapped to become Murābahah products, accounting for such products both before and after conversion uses PSAK 55/50. However, there are differences in recording conventional and Islamic products, namely in the conventional financial statements, where the outstanding credit value is recorded as credit given, with the amortized cost account offsetting the credit account. In Islamic banking, financing is recorded as Murābahah receivables, consisting of the principal value and deferred Murābahah margin, and the amortized cost account and deferred Murābahah margin as offsetting the Murābahah receivables.

Table 5. Murābahah Accounting Journal Mapping Scheme

JOURNAL OF LOAN CONVERSION INTO MURABAHAH							
CONVENTIONAL				SYARIAH			
Parent GSSL ( General Sub Sub Ledger )	Principal	#####	1E+06	Parent GSSL ( General Sub Sub Ledger )	Murabahah Receivables	1100170	1,400
	Outstanding Amortise	-220			Deferred Margin	1101170 001	-400 Post ID 183
	Fair Value	780			PSAK Difference	1100351 004	-220 Post ID 198
	Outstanding Interest ( Based On Payment Schedule	400			Fair Value		780

Source: Collega (2024)

In such a scheme, a policy is needed to determine the value of the deferred Murābahah margin, as this was not previously needed for conventional credit products. At Bank Aceh Syariah, the value of the deferred Murābahah margin is determined from the instalment schedule or cash flow of the credit until the due date, assuming it has not yet been received by the bank. Therefore, the core banking system will calculate the value of credit interest based on the instalment schedule in the conventional product to be the basis for recognizing the deferred Murābahah margin for Murābahah products.

### 3.5.2. Mudhārabah and Musyārahah Accounting Journal Mapping

Unlike financing products mapped under Mudhārabah or Musyārahah contracts, the previous PSAK 55/50 has now become PSAK 105 or PSAK 106. Therefore, a policy is needed for the remaining unrecognized amortization, whether it constitutes income or cost.

Table 6. Mudhārabah and Musyārahah Accounting Journal Mapping Scheme

JOURNAL OF LOAN CONVERSION INTO MUSYARAKAH							
CONVENTIONAL				SYARIAH			
Parent GSSL ( General Sub Sub Ledger )	Principal	1,000	1051301	Parent GSSL ( General Sub Sub Ledger )	Musyarakah Receivables	1140151	1,000
	Outstanding Amortise ( was disclosed into income, so the values become 0 )	0			Other Income In Advance	2500151	- Post ID 287
	Fair Value	1,000					

Source: Collega (2024)

For such products, the remaining provision/amortization component, which is a component in forming the fair value of the credit, is recognized as income/cost, thus becoming nil in value before the initial Islamic commercial bank balance sheet is prepared.

### **3.6. Financial Statement Mapping**

Based on OJK circular No.2/SEOJK.03/2017 regarding the change of conventional commercial bank operations to become an Islamic commercial bank, in general provisions section A (requirements for application for business activity change) point 10, it is stated that the bank must present an initial financial statement as Islamic commercial bank showing the current year's profit and loss as well as the previous year's profit and loss which have a balance of Rp. 0.00 or nil. Therefore, during the process of converting the financial statements into Islamic commercial bank reports, the income and expenses for both conventional financial statements and Islamic business unit financial statements will be eliminated.

Financial statement mapping is based on COA mapping and Bank of Indonesia reporting code mapping. Each account is mapped based on Financial Monetary Stability Report code that applies when converting codes used by the core banking system in creating financial reports, such as balance sheet reports and profit and loss reports, including those for internal purposes and regulatory reports.

According to International Financial Reporting Standards (IFRS), an asset is recognized in the financial statement when its likely that the future economic benefits of the asset will flow to the company and the asset has a cost or value that can be reliably determined. Liabilities are recognized when its likely that an outflow or resources including economic benefit will emerge from the settlement of a current obligation, and the amount at which the settlement will occur can be reliably determined. The mapping of assets and liabilities is shown below.

#### **Asset Mapping:**

Based on the code mapping, a working template can be created on how asset accounts are mapped into Islamic commercial bank reports. From this mapping, it can be seen which accounts, after being converted in balance, should be the sum of the values of a conventional bank and its Islamic business unit, and which accounts may differ or are the sum of several accounts. For example, calculating the outstanding credit to be converted into Murābahah it done by adding the Murābahah receivables account and the deferred Murābahah margin.



Table 7. Asset Mapping of Balance Sheet

FS CONVENTIONAL & ISLAMIC BUSINESS UNIT		CONVENTIONAL	SYARIAH	TOTAL	ISLAMIC BANK FINANCIAL STATEMENT				
NO	TYPE / DESCRIPTION	AMOUNT	AMOUNT	TOTAL	NO	AKTIVA	AMOUNT	GAP	NOTE
1	KV, SY KAS				1	Kas			
2	KV, SY BANK INDONESIA				2	Penempatan pada Bank Indonesia			
3	KV ANTAR BANK AKTIVA				3	Penempatan pada Bank Lain			
4	SY GIRO PADA BANK LAIN				4	Tagihan Serah dan Forward			
5	SY PENEMPATAN PADA BANK LAIN				5	Surat Berharga Dimilik			
6	PENY. DANA ANTAR BANK (-/)				6	Tagihan atas Surat Berharga yang dibeli dengan jenis diolah kembali			
7	KV SURAT BERHARGA DAN TAG LAINNYA				7	Tagihan Asetisasi			
8	CPN SB - TERSEDIA UNTUK DIJUAL (-/)					Piutang			
9	KV KREDIT YANG DIBERIKAN				8	a. Piutang Murabahah			
10	SY PIUTANG MURABAHAH					b. Pendapatan margin Murabahah yg Ditanggihkan (-/)			
11	SY PEMBIAYAAN MUSYARAKAH				9	c. Piutang Istisna			
12	SY PINJAMAN QARD				10	d. Pendapatan margin Istisna yg Ditanggihkan (-/)			
13	KV, SY CKPN (-/)				11	e. Piutang Qardh			
14	KV PENYERTAAN				12	f. Piutang Sewa			
15	KV PENYIS PENYERTAAN					Pembayaran Bagi hasil			
16	SY Aktiva Ijarah				14	a. Mudharabah			
17	KV, SY AKTIVA TETAP DAN INVENTARIS				15	b. Musyarakah			
18	KV, SY AKM, PENYIS AKTIVA TETAP				16	c. Lainnya			
19	KV, SY BIAYA DIBAYAR DIMUKA					Pembayaran Sewa			
20	KV BUNGA ASAN DITERIMA				17	a. Aset Ijarah			
21	KV REKENING TUNDA				18	b. Akumulasi Penyusutan/Amortisasi (-/)			
22	SY PIUTANG LAINNYA				19	c. Cadangan Penurunan Nilai (-/)			
23	SY LIANG MUKA				20	Penyertaan			
24	KV, SY RUPA - RUPA AKTIVA LAINNYA					CKPN Aset Produktif			
25	KV RAK CABANG SYARIAH AKTIVA				21	a. Individu			
26	KV REKENING ANTAR KANTOR CABANG AKTIVA				22	b. Kolektif			
27	KV REKENING ANTAR KANTOR CAPEM/KKAS AKTIVA				23	Aset Tidak Berwujud			
					24	Akumulasi amortisasi (-/)			
					25	Sulan			
					26	Aset Istisna dalam Penyelesaian			
					27	Taman Istisna			
					28	Aset Tetap dan Inventaris			
					29	Akumulasi Penyusutan (-/)			
					30	Properti Yang Bangkai			
					31	Aset yang diambil alih (AYDA)			
					32	Mobilisasi harta			
						Aset Antar kantor			
					33	a. Kegiatan Operasional Di Indonesia			
					34	b. Kegiatan Operasional Di Luar Indonesia			
					35	Cadangan Kerugian Penurunan Nilai Aset Lainnya -/			
					36	Persediaan			
					37	Aset Pihak Tanggahan			
					38	Rupa-rupa Aset			
						TOTAL AKTIVA			

Source: Collega (2024)

The total combined assets of conventional and Islamic business units will not always be the same as the total assets after conversion. For example, in the case of Bank Aceh Syariah, the total combined assets of conventional and Islamic business unit are larger than the total assets after conversion. This is due to the policy of presenting Inter-Office Accounts which were previously presented grossly and are now presented net, so their values offset each other. This is crucial in the proofing stage of financial reporting, so when there is a difference between the value before and after conversion, it can be explained based on the bank's conversion policies.

Liabilities Mapping:

For liabilities, the process is simpler, as the conventional and Islamic accounts are similar. For example, conventional checking, savings, and deposit accounts are mapped to checking, savings, or deposit accounts, but are adjusted according to the type of contract used for the syariah account (Wadi'ah or Mudhārabah).

Table 8. Liabilities Mapping of Balance Sheet

PASIVA		CONVENTIONAL	SYARIAH	TOTAL	ISLAMIC BANK FINANCIAL STATEMENT	AMOUNT	GAP	NOTE
NO	TYPE	DESCRIPTION	AMOUNT	AMOUNT	PASIVA			
1	KV	GIRO			1 a. Giro			
2	SY	GIRO WADIAH			2 b. Tabungan			
3	KV,SY	KEWAJIBAN SEGERA LAINNYA			Dana Investasi Non Profit Sharing			
4	SY	BAGI HASIL YG SLM DIBAGIKAN			3 a. Giro			
5	KV	TABUNGAN			4 b. Tabungan			
6	SY	TABUNGAN WADIAH			5 c. Deposito			
7	SY	TABUNGAN MUHARABAH			6 Kewajiban Kepada Bank Indonesia			
8	KV	DEPOSITO			7 Kewajiban Kepada Bank Lain			
9	SY	DEPOSITO MUHARABAH			8 Kewajiban Spot dan Forward			
10	SY	DEPOSITO MUHARABAH			Surat Berharga Dibebankan			
11	KV	PINJAMAN BANK INDONESIA			Kewajiban Akseptasi			
12	KV	PINJAMAN YANG DITERIMA			9 Pembiayaan yang Dibebankan			
13	KV	ANTAR BANK PASIVA			9 Setoran Jaminan			
14	KV	KEWAJIBAN SURAT BERHARGA			Kewajiban Antar Kantor			
15	KV,SY	SETORAN JAMINAN			a. Rekening Operasional DIT Indonesia			
16	KV,SY	RUPA-RUPA PASIVA			b. Rekening Operasional DIT Luar Indonesia			
17	KV	BUNGA AKAN DIBAYAR			10 Kewajiban Pajak Tanggungan			
18	KV	MODAL PINJAMAN			11 Dana Investasi Kewajiban			
19	KV	MODAL DASAR			Dana Investasi Non Profit Sharing			
20	KV	MODAL YANG BELUM DISETOR			a. Giro			
21	KV	CADANGAN-CADANGAN			b. Tabungan			
22	KV	PENDAPATAN IKOM/PEHENSIF SURAT BERHARGA			c. Deposito			
23	KV	LABA/RUGI TAHUN LALU			d. Kewajiban Kepada Bank Lain			
24	KV	LABA/RUGI DARI OPERASI YANG DIHENTIKAN			e. Surat Berharga			
25	SY	REK CABANG SYARIAH PASIVA			f. Pembiayaan yang Dibebankan			
26	KV	REKENING ANTAR KANTOR CABANG PASIVA			Modal Pinjaman			
27	KV	REKENING ANTAR KANTOR CAPEM/K.KAS PASIVA			Modal Kantor			
28	SY	LABA RUGI DR OPERASIONAL YG DIHENTIKAN			1.2 a. Modal Dasar			
29	KV,SY	LABA/RUGI TAHUN BERJALAN			1.3 b. Modal yang Belum Diletor (-/-)			
		TOTAL PASIVA			c. Saham yang dibeli Kembali (Treasury Stock) -/-			
					Perkiraan Tambahan Modal Di Setor			
					a. Agio			
					b. Ditagih (-/-)			
					c. Modal Sumbangan			
					1.4 d. Dana Setoran Modal			
					a. Penyusutan Akibat Penjabaran Laporan Keuangan			
					i. Lebih Lebih			
					ii. Lebih Kurang (-/-)			
					f. Denda/Penalti (Mengurangi Keuntungan/Laba)			
					g. Keuntungan			
					h. Mengurangi (-/-)			
					f. Labanya			
					g. Keuntungan			
					h. Mengurangi (-/-)			
					Lebih Perubahan Kembali Aktiva Tetap			
					Cadangan			
					1.5 a. Utang			
					1.6 b. Tugasan			
					1.7 Laba/Rugi			
					a. Tahun-tahun lalu			
					i. Laba			
					ii. Rugi (-/-)			
					b. Tahun Berjalan			
					i. Laba			
					ii. Rugi (-/-)			
					c. Operasional yang dihentikan			
					i. Laba			
					ii. Rugi (-/-)			
					d. Pajak Tanggungan			
					i. Laba			
					ii. Rugi (-/-)			
					TOTAL PASIVA			

Source: Collega (2024)

Just like assets, the total combined liabilities of conventional and Islamic business units before and after conversion can differ in amount. The difference in the presentation pattern of Inter-Office Accounts also affects the total amount on the liabilities side. The total liabilities value after conversion is smaller compared to the total combined liabilities of conventional and Islamic business units.

### 3.7. Migration and Conversion Process

Bank Aceh choose the big bang migration model over piloting model, before the big bang migration and conversion process, several stages must be completed first as an integral part of IT readiness. These include the process of mapping tables at the core banking system database level as the basis for data migration, gap analysis, development of core banking system applications according to gap analysis results,

testing of applications consisting of System Internal Tests and User Acceptance Tests, and the implementation of training of trainers and training of end users of core banking system applications.

Simulations of the migration and conversion processes, as well as Operational Readiness Tests, are carried out several times to ensure that all scenarios of the ‘Go-Live’ stages and islamic commercial bank operations can run well. The stages at the time of Go-Live are illustrated in Figure 5.

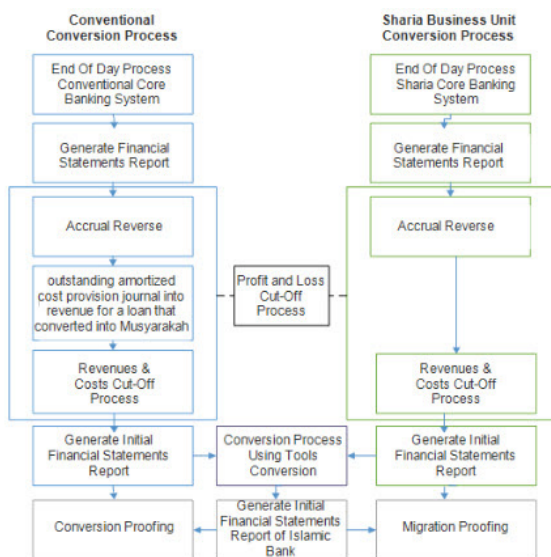


Figure 5. Go-Live Migration and Conversion Process

Source: Collega (2024)

The process begins with the preparation of conventional financial and Islamic business unit product statements as usual, as these reports will later become the final reports of those institutions. This is followed by the cancellation of accruals from interest expenses and interest income for conventional products, the cancellation of accruals for profit-sharing expenses and financing income for Islamic business unit products, and other policy journals related to the conversion of conventional bank and Islamic business unit products that are mapped to Islamic commercial bank products, such as the policy of eliminating the remaining credit amortization to be converted into Mudhārabah and Musyārahah, and the journaling of deferred Murābahah margins for credits to be converted into Murābahah. As a requirement for the initial Islamic commercial bank balance sheet, income and expenses are eliminated, both for conventional banks and Islamic business units. The profit value resulting from the elimination is booked as a discontinued operation profit/loss position into one account group with the previous year’s profit/loss and this

year's profit/loss.

After the initial balance sheet for conventional bank and Islamic business unit products is released, the initial Islamic commercial bank balance sheet is formed, where the transfer of balances from each account refers to the COA mapping. As for the profit/loss report, it is presented as nil. The next profit/loss report will be valued at income and expenses by the operational business of the Islamic commercial bank.

#### **4. Conclusion**

The role of the core banking system in the conversion process of Bank Aceh Syariah received full support from the management of Bank Aceh Syariah, the regulators (Bank of Indonesia and OJK), and the Aceh provincial and local governments. Good Corporate Governance plays an important role in this process, and each stage and progress need to be supervised by all involved parties (Mukhlisin *et al.*, 2019). Although this conversion was the first such case in Indonesia, the core banking system was able to perform its role well, enabling the conversion process to smoothly and successfully transforming Bank Aceh into Bank Aceh Syariah.

Nevertheless, there were some shortcomings in the process, but these are being resolved gradually, such as adjusting the codes used for reporting and the development of additional features of the core banking system. In addition, education for customers remains important, ensuring that customers who were previously users of conventional financing can gradually change and understand the products and characteristics of Islamic banks. This is important because customer satisfaction and trust are crucial in improving customer loyalty to Islamic banks (Kartika *et al.*, 2019).

In addition, a more detailed guide is needed for the conversion and migration process, such as when forming the initial balance sheet of an Islamic commercial bank, where there is an elimination of income and expenses and the previous year's profit/loss and this year's profit/loss. This requires policy harmonization between the syariah bank supervisory board, banks, and regulators to develop a standard for financial reporting (Mukhlisin *et al.*, 2015).

This paper primarily focuses on analyzing the IT component of the core banking system used by Bank Aceh to become Bank Aceh Syariah. This analysis can be further developed by analyzing other conversion processes and IT vendors to understand the conversion stages that a core banking system undergoes during the conversion process.

## REFERENCES

- Alamsyah, A.R, Amri, Y. (2021). Pros and Cons of Converting Conventional Banks into Syariah Banking Based on Qanun Number 11 of 2018. *Islamic Investment Journal Vol.6 No.2*, 118-130.
- Bank Aceh (2016). *OJK Bank Aceh Syariah Conversion Preparation Material BAS-OJK*. Unpublished.
- Bank Aceh, 2021. *Sejarah Singkat Perusahaan*. Available at: [https://www.bankaceh.co.id/?page\\_id=82](https://www.bankaceh.co.id/?page_id=82), accessed on 20 March 2024.
- Banking Law No.21, (2008). *Islamic Banking Law of Republic of Indonesia Number 21, Year 2008* available at: [https://www.ojk.go.id/waspada-investasi/id/regulasi/Documents/UU\\_No\\_21\\_Tahun\\_2008\\_Perbankan\\_Syariah.pdf](https://www.ojk.go.id/waspada-investasi/id/regulasi/Documents/UU_No_21_Tahun_2008_Perbankan_Syariah.pdf)
- Beck, T, Demirguc-Kunt, A, Merrouche, O (2013). islamic vs conventional banking: business model, efficiency and stability. *Journal of Banking & Finance* 37(2013) 433-447.
- BI (2008). *Syariah Banking Product Codification. Directorate of Syariah Banking, Central Bank Of Indonesia, 2008.*
- Budianto, Sofyan, D.A. (2021). Comparative Analysis of Bank Aceh's Financial Performance Before and After Syariah Conversion." *Academic Accounting Journal, Vol 4 No. 2*, p.288-300.
- Collega (2022). *Syariah CBS presentation material*, March 31, 2022. Unpublished.
- Collega. (2023). *About Collega*. Available at: <https://www.telkomsigma.co.id/id/subsidiary/pt-collega-inti-pratama/>, accessed on 22 November 2023.
- Collega (2024). *Scope of Work for Conversion from Conventional Bank to Syariah Bank V2.0*, PT. Collega Inti Pratama. Unpublished.
- Conversion (2015). *Material on the IT Conversion Stages of Bank Aceh*, September 23, 2015. Unpublished.
- Deddy, N, (2020). *Analysis of Conversion Strategy PT.Bank Aceh Syariah*. Faculty of Islamic Economics and Business UIN Sumut.
- Fatwa DSN No.15 (2000). *Principal Of Profit Distribution In Sharia Financial Institution*, Dewan Syariah Nasional (DSN).
- Gartner (2024). *Core Banking System*. Available at : <https://www.gartner.com/en/information-technology/glossary/core-banking-systems>, accessed on 22 may 2024.
- Habir, D., Soemtrio, W. *The Conversion of Regional Development Bank to Islamic Bank: Case of Bank Aceh Syariah and Bank NTB Syariah*. IPMI International Business School, Jakarta. KNEKS.
- IAI, (2000). *Syariah Financial Accounting Standards - Basic Framework for*

*Preparation and Presentation of Syariah Financial Statements.*

- Kartika, T., Firdaus, A., & Najib, M. (2020). Contrasting the drivers of customer loyalty; financing and depositor customer, single and dual customer, in Indonesian Islamic bank. *Journal of Islamic Marketing*, 11(4), 933-959.
- Kumar, A, Salvaterra, G, Kulkarni, T (2019). *Digital Tranformation Hit Core Banking*. Available at: <https://www2.deloitte.com/us/en/pages/consulting/articles/core-banking-digital-transformation-strategy.html>, accessed on 20 March 2024.
- Kvartalnyi, N (2023). *10 Requirement for Building Digital Banking Architecture*. Available at: <https://inoxoft.com/blog/10-requirements-for-building-digital-banking-architecture/>, accessed on 20 March 2024.
- Liberto, (2024). *Chart Of Account (COA) Definition, How It Works, and Example*. Available at: <https://www.investopedia.com/terms/c/chart-accounts.asp>, accessed on 20 March, 2024.
- Mukhlisin, M., & Nofianti, L. (2019). The Role of Good Corporate Governance and Accounting in Islamic Financial Institutions. *In Research in Corporate and Shari'ah Governance in the Muslim World: Theory and Practice* (pp. 115-126). Emerald Publishing Limited.
- Mukhlisin, M., Azid, T., & Hudaib, M. (2015). The need for Syariah harmonization in financial reporting standardization. *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 8 Iss 4 pp. 455 – 471.
- OJK (2016a). Change of Conventional Bank Business Activities into Syariah Bank. POJK No.64/POJK.03/2016.
- OJK (2016b). Standar of Information Technology Implementation for BPR and BPRS. POJK No.75/POJK.03/2016 available at: <https://ojk.go.id/id/regulasi/Pages/POJK-tentang-Standar-Penyelenggaraan-Teknologi-Informasi-bagi-Bank-Perkreditan-Rakyat-dan-Bank-Pembiayaan-Rakyat-Syariah.aspx>
- Ribowo, S., Nurdin, I.B (2020). Analysis of BUMD Bank Conversion into Syariah Bank Its Implications for Increasing Market Share of Syariah Banks in Indonesia: Case Study of Bank Aceh Syariah and Bank NTB Syariah. Ad-Deenar: *Journal of Islamic Economics and Business*, Vol: 6/NO:01.
- Suharto, U. (2018). Riba and interest in Islamic finance: Semantic And Terminological Issue. *International Journal of Islamic and Middle Eastern Finance and Management*, 11(1), 131-138.
- Yasid M., Laela S.F (2022). The Success Factors of Conversion Process Using Adkar Model: A Case Study of Islamic Saving Loans and Financing Cooperativ. *Jurnal AFKARUNA*, Vol.18 No.1 June 2022.
- Yoesoef, Y.M, Khairisma (2020). Existence of Bank Aceh Post Conversion to the Welfare of Aceh Community. Al-Masharif: *Journal of Islamic Economics*. Volume 8 Number 2 Page 162-176.