apM COIN

Blockchain-powered
Customer Rewards Management Platform

Whitepaper_English   Ver 4.0

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1. Abstract

apM Coin project aims to establish a customer reward management platform optimised for on-/off-line B2B commerce transactions in partnership with Korea's largest B2B fashion malls apM, apM PLACE, and apM Luxe.

Customer rewards own a currency's features as they can conduct three functions currency – the means of payment, a unit of account to measure values, and a store of value. Since private organisations issue most customer rewards in electronic form, customer rewards can be regarded as the issuing companies' digital currency. Loyalty programmes also play roles as practical marketing tools that market to and attract customers, and as data collection tools to collect high-quality customer data, which can be used for forecasting customer purchasing patterns.

apM Coin project contemplates that applying digital technology, including blockchain, cloud network, and data analysis technology on current customer rewards systems, will enhance customer reward systems' advantages when customers earn/redeem rewards or merchants utilise data on the rewards platforms. Moreover, by conducting the project partnership with acclaimed industry leaders, the project has built competitive advantages of business development and implementation.

apM Group, a dedicated partner of apM Coin, has been a leader of the Dongdaemun wholesale fashion market for more than two decades. The company has grown its reputation from the superior quality and fast adoption of the latest trend among other wholesale markets. Along with apM Group's plans to implement its customer reward system under the objectives to leverage its competitive advantages, apM Coin project has cooperated with the company to build its customer reward platform utilising blockchain technology. The project will use the platform to collect dispersed market data efficiently; the collected data will project meaningful insights for better customer services and higher company competency. The platform will be equipped with an efficient and secure digital payment system that supports the project's digital assets.

Additionally, based on the mass adoption use case made with apM Group, apM Coin project will expand the platform's service areas to other industries or companies so that more users can actively utilise its customer rewards management platform and the project's digital assets.

2. Market Analysis

2.1. State of Customer Reward Management Market

According to Fortune Business Insights[1] published in December 2019, the global loyalty market size, which was evaluated at USD 2,133.2 million in 2018, has been expected to increase to USD 7,126.8 million by 2026, presenting a CAGR of 16.84% from 2019 to 2026. Also, among various industries, a retail sector would actively adopt a customer reward program to retain customers and encourage repurchase.

As per a Jan 2019 article of Kookmin Ilbo[2] about Korea's most extensive five loyalty programmes – L.point (Lotte Group), OKcashbag (SK Group), Happy Point (SPC Group), CJ One (CJ Group), and Shinsegae Point (Shinsegae Group) –, L.point has more than 38 million members; OKcashbag has more than 34.7 million members; Happy Point has 19.9 million members as of Sep 2018. 80% of members at L.point – the most extensive loyalty programme in Korea – are in the 20-30s; the number of its programme members increases at a compound annual rate of 8%, and 95% of its members are actively using the customer rewards.

2.2. Market Size of Dongdaemun Wholesale Fashion Industry

As reported by Statistics Korea in 2016[3], Korea's apparel wholesale market's total sales exceeded KRW 33,491.7 billion; 90% of the sales occurred in Seoul's wholesale market, generating KRW 30,109.8 billion. Due to the apparel industry ecosystem's unique features, Seoul's wholesale clothing market has been formed from Dondamun, and 20+ wholesale clothing malls are gathered in the Dongdaemun fashion cluster. In the article Hankyung Magazine in 2019[4], the Dongdaemun fashion market's market size was estimated at KRW 15 trillion with KRW 50 billion of estimated daily turnover, which shows that the Dongdaemun fashion market is the heart of Korea's fashion industry.

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[1] "Loyalty Management Market, Size, Share and Global Trend by Type (Customer Retention, Customer Loyalty, Channel Loyalty), By Deployment (On-Premises, Cloud), By Organization Size (SMEs, Large Enterprises), By End-User (BFSI, IT and Telecommunication, Retail, Travel and Hospitality, Manufacturing, Media and Entertainment, Hospitality, and Others) And Geography Forecast till 2026," Fortune Business Insights, Dec 2019

[2] Soojeong Moon, "돈 없어도, 카드 없어도… 즐겨라, 멤버십 포인트 '공짜 쇼핑(Whether you don't have money or credit card, enjoy free shopping with membership points)'", Kookmin Ilbo, 14 Jan 2019, http://news.kmib.co.kr/article/view.asp?arcid=0924056190&code=11151400&cp=nv

[3] "도소매업조사[2016-2016] (Wholesale and Retail Report[2016-2016])", KOSIS, http://kosis.kr/statHtml/statHtml.do?orgId=101&tblId=DT_1KA3001&conn_path=I3

[4] Yeongeun Kim, "'1인 마켓·데이터'입고 진화하는 동대문 패션 시장 (SNS indi markets, data analyasis…Dongdamun Fashion Market is Evolving)", Korea Economic Daily Magazine, 20 Mar 2019, http://magazine.hankyung.com/apps/news?popup=0&nid=01&c1=1003&nkey=2019031800121600015 1&mode=sub_view

2.3. Limit of Current Customer Reward System

The function of currency can be summarised into three categories: the means of payment, a unit of account to measure values, and a store of value. There is a type of currency widely used and works as a currency type though, not recognised as a standard currency. One of these currency types is a customer reward that most people would have gained when purchasing goods and services. A customer reward is an amount earned and accumulated at a specific rate according to the price paid for goods and services; it may be used within the supplier's ecosystem or with its partners.

Customer rewards own the features of a currency. Customer rewards can conduct three functions of a currency, which are the means of payment, a unit of account to measure values, and a store of value. As most customer reward systems are established and managed by private organisations like companies, in electronic form, customer rewards can be considered as digital money of the issuing companies. In other words, it can be said that the company-issued currency is a means to trade through a digital transactional intermediary.

Customer rewards are efficient in terms of cost and convenience. It is possible to trade with either no fee or a low fee because banks do not perform the transaction. Another advantage is that users are at less risk of loss than other payment methods. However, the reward points currently being used has several limitations. First of all, customer rewards are legally interpreted as conditional bonds. Customers cannot be guaranteed that customer rewards' terms will be fulfilled, and it is challenging to enforce fair compensation and protection by law enforcement.

Loyalty programs are widely known as practical marketing tools that market to and attract customers. Additionally, the programs can collect high-quality customer data, which enables the forecast of purchasing patterns. These data are critical to layout effective business strategies such as the size, direction, and business timeline. Although merchandise and service providers contribute significant resources to operating their reward points programs, they still have limited consumer data access.

3. apM Coin Project

3.1. Project Objectives

As mentioned in a previous chapter, customer reward programs are practical tools for marketing and customer acquisitions. They also work as big data platforms that can collect valuable data for effective business growth strategies. Moreover, as more consumers purchase customer rewards to upgrade their products and services and enhance post-purchase satisfaction, customer rewards have become another revenue stream.

Following the rise of K-cultures, i.e. K-pop, K-drama, etc., in a global market, there are increasing demands for K-fashion. Dongdaemun fashion market, the heart of the Korean fashion industry, is also growing. Particularly, since the superb quality and design of clothing products – which are planned, manufactured, and sold in the Dongdaemun fashion cluster – Chinese customers tend to consider them as premium products.

As previously mentioned, the Dongdaemun wholesale fashion market is a powerful offline B2B platform where thousands of Korean and global buyers pay regular visits to place orders for business purposes. More than 20,000 wholesalers generate trillions of Korean Won value of sales revenue, and its B2B business accounts for 90% of the market[5]. Despite its massive market size and high ratio of global buyers, it is not easy to find a well-organised and integrated customer reward system in this market, which can systemically manage/use customer data and promote sustainable customer relations. Since a structured loyalty system for this huge market cannot be found yet, apM Coin project confirms the needs of a customer reward platform with an integrated management system of customer data.

3.2. Roles of Blockchain-powered Solutions

In 2016, Deloitte Center for Financial Services[6] published a report about how blockchain technology can improve existing customer reward management systems. It is said that when blockchain is applied to a customer reward management system, the key factors are a loyalty networks/platform, loyalty application, and loyalty token. Utilising these critical factors described in Deloitte's report, apM Coin project is planning to provide the right kind of customer reward management system that can build a long-term relationship with vendors and customers of the Dongdaemun B2B fashion market.

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[5] Yeongeun Kim, "'1인 마켓·데이터'입고 진화하는 동대문 패션 시장 (SNS indi markets, data analyasis…Dongdamun Fashion Market is Evolving)", Korea Economic Daily Magazine, 20 Mar 2019, http://magazine.hankyung.com/apps/news?popup=0&nid=01&c1=1003&nkey=2019031801216000151&mode=sub_view

[6] "Making blockchain real for customer loyalty rewards programs," Deloitte Center for Financial Services, 2016

3.2.1. Integrated Customer Management Platform

By providing a customer management platform for the B2B market where most customers are global buyers, the project aims to efficiently collect the Dongdaemun fashion market's dispersed customer data and provide quick and effective customer services that meet users' needs. Blockchain technology enables a customer rewards management system of apM Coin project to interact with other companies/organisations' loyalty management systems through systemic protocols and smart contract, and exchange or convert customer rewards between other companies/organisations. In this regard, by utilising these technological functions, the project plans to develop customer rewards that can be used as a payment method in the Dongdaemun fashion market, and build an efficient and secure digital payment system that uses the customer rewards as one of its payment options.

3.2.2. Real-time Reward Management & Improved Interoperability

Under the current Korean law, customer rewards are legally interpreted as conditional bonds, and customers cannot be guaranteed that customer rewards' terms will be fulfilled. It is challenging to enforce fair compensation and protection by law enforcement. There is a transmission latency gap in information between current reward points issuers and service providers, and their respective data are asynchronous. Blockchain can enhance the platform's functions to share real-time information with increased transparency, allowing users to earn, redeem, and monitor customer rewards instantly.

Furthermore, blockchain protocols can also enable platform's reward issuers to be interoperable with other issuers in different customer reward platforms. Thousands of B2B business transactions co-occur; most customers are global buyers from China, Vietnam, Japan, Taiwan, and other Asian countries, so the market has a strong possibility of cooperating with other industry, including lodging, transportation, logistics service providers. The platform's high interoperability can expand opportunities to collaborate with more partners of different industries/businesses, leading to customers receiving and enjoying more benefits offered by more reward issuers of the platform.

3.2.3. Security-enhanced with Tokenisation

In the existing customer reward systems, reward issuers have the sole authority to operate the system. Hence, consumers are vulnerable to problems caused by the issuer, such as computational errors or crucial data omission. As customer rewards are valuable assets provided to customers in the form of conditional bonds, customer rewards should be indispensably protected with strong security.

Blockchain technology can improve the platform's security because customer rewards are tokenised with eigenvalue and are hard to be hacked, forged or changed. Also, apM Coin project will manage a customer reward system across multiple nodes so that the system can limit operational risks, enhance security, and reduce costs of trust.

### 3.2.4. Transparent Management of Terms and Conditions

Reward-issuing companies should notify customers of the loyalty programme's terms and conditions when they join the programme. Also, the terms and conditions of the programme cannot be changed unilaterally. However, in most cases, customers have not acknowledged the unilateral variations of the loyalty programmes' terms and conditions, such as changes in reward rates, discount rates or other reduced benefits.

apM Coin project will establish means and applications that protect the customers(buyers) and/or franchisees(sellers)' rights as it manages terms and conditions of the customer reward programme, including rewards rate, discount rate or other reward benefits. When modifications and adjustments to the terms and conditions are made, all changed data will be recorded on blockchain network. A third party guarantees agreements between consumers and customer rewards management entities through a smart contract, and neither party can unilaterally change or violate the terms.

3.3. Service Model

3.3.1. Mobile Application as End-user Service
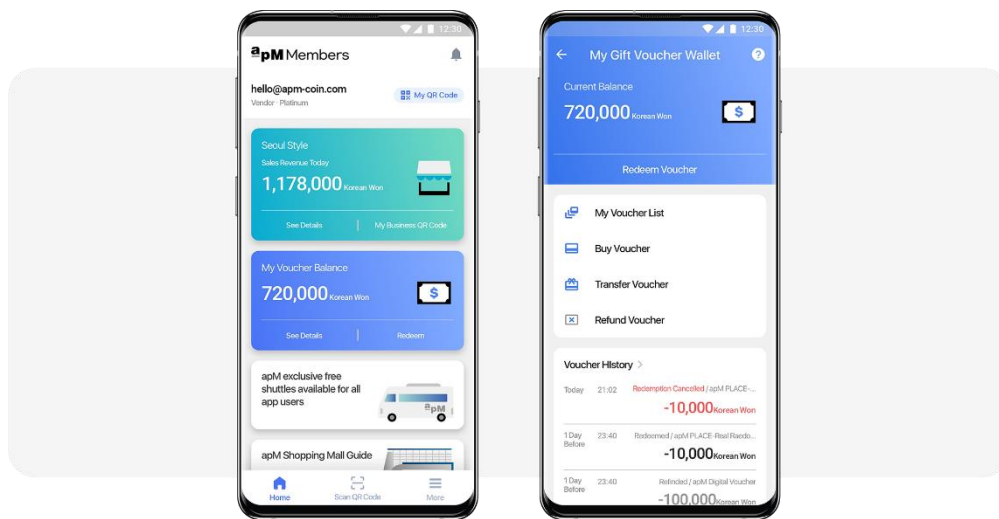
In terms of technology adoption in real-world Business, usability is one of the most important factors that should be counted. apM Coin project will launch a mobile application name apM Members, where vendors (wholesalers) and customers (buyers) can use the platform services with ease on their own mobile devices. Through apM Members mobile app, buyers can earn and redeem customer rewards and receive updates on the latest shopping information, including various customer benefits and events in the malls.

3.3.2. Customer Management System for B2B Market

Primary users of the project's customer reward platform can be categorised into buyers (customers) and vendors (wholesalers) in B2B markets. While the customers experience several benefits of the reward platform through the mobile application, their user data would be collected. These data can be up-to-date market information to understand customers' buying behaviours. The vendors can access these collected customer data after paying the platform's customer management service

fee. Using these data, the wholesalers can manage their customers according to their brand's business strategy and develop business insights for growths.

3.3.3. Blockchain-based Digital Asset Payment Solution
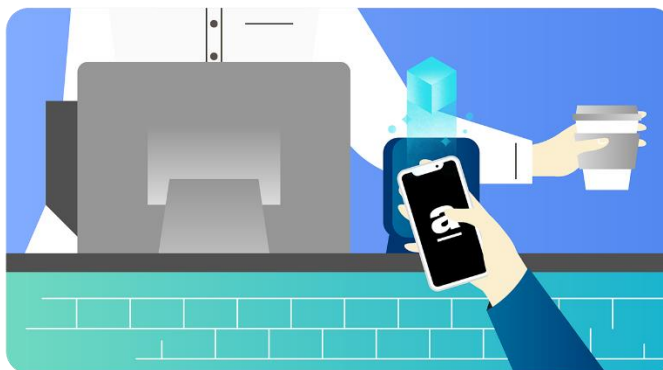
The project's mobile app apM Members will have QR code-based payment service, which is suitable for fast and convenient business transactions between wholesalers and customers. This mobile payment solution supports on-/off-line QR code payments using the project's digital assets, including apM Coin tokens, customer reward points and digital vouchers.

apM Coin's digital assets can be transferred between the app users; they are managed on a blockchain system, which increases security and scalability. Also, these digital assets are intended to be issued as NFTs (Non-Fungible Tokens) on public/private blockchain networks in addition to apM Coin's platform. By utilising features of blockchain-adopted digital assets, apM Coin project will increase its payment-share of its digital assets in the wholesale market's business transactions and expand its digital asset-applied service territory to related industry.

4. Ecosystem Development

4.1. Cooperation with apM Group

It is essential that apM Coin project partners actively adopt and implement their customer reward systems using its loyalty platform. The project's first key partner is apM Group, the Dongdaemun wholesale fashion market's leading player.

4.1.1. apM Group Overview

Category	apM	apM PLACE	apM Luxe
Market Size	10,000 average daily visitors, 150 million cumulative annual visitors, 80% of global buyers		
Opening Year	1999	2016	2012
No. of Floors	11 stories (LL2 to 9th floor)	16 stories (LL4 to 12th floor)	8 stories (LL2 to 8th floor)
Floor Infomation	8th-9th floor: Office 4th-7th floor: Men's wear LL1-3rd floor: Women's wear	4th-8th floor: Premium brands of women's wear *(Diamond floor)* 1st-3rd floor: Women's wear LL2-LL1: Accessories 9th-10th floor: Office 11th-12th floor: Residence hotel	1st-6th floor: Women's wear LL1: Accessories
No. of Brands	500+	500+	300+

apM Group is a dominant player in the Korean wholesale fashion market. The company owns the most extensive wholesale shopping malls in Dongdaemun fashion cluster, apM, apM PLACE, and apM Luxe. Since it opened apM mall in 1999, apM Luxe in 2012 and apM PLACE in 2016, the company has led the Dongdaemun wholesale fashion market trend and has driven the market growth in the global wholesale fashion scene. More than 1,300 wholesale brands are operating their businesses in apM, apM PLACE, and apM Luxe.

apM malls are visited by more than 10,000 buyers per day on average, of which 80% of them are visited from abroad. To improve global buyers' customer satisfaction, apM Group has provided various customer services such as translation support, shuttle bus, accommodation at its residence hotel, and outsourced professional buyers.

The company has expanded its business area in an online wholesale fashion market. To solidify its Business overseas, apM Group is planning to expand globally.

4.1.2. Objectives of Cooperation with apM Group

Dongdaemun apparel market is one of the top five global fashion meccas. The market has enhanced K-fashion's presence in an international fashion market, as 75% of wholesale clothing products are exported overseas. Also, it is said that 20% of the Chinese unbranded clothing market are originated from Dongdaemun, which explains the Dongdaemun apparel market has a massive influence on the global fashion market. The remarkable growth of the market is the result of fast responsiveness, where advertised clothing seems to appear in the stores the very next day. This responsiveness is realised because of Dongdaemun's geographical advantages, which combine strategic planning, production, and distribution.

However, the Dongdaemun wholesale market has struggled to cope with rapid changes facing the era of digital transformation. When most of the other fashion markets are armed with computerised, online, and digital data, the Dongdaemun market still mostly focuses on its offline market and is transacting mainly with cash. For this reason, both customer and transaction data are manually recorded. All information is inevitably fragmented, making it difficult to obtain accurate insight from such data. Despite Dongdaemun's strong presence as the top five global fashion mecca, it can deleverage its strength that the market cannot fully implement a well-structured big data management system about its market and customer data.

In order to deal with such changes and develop its competitive advantages, apM Group is planning to establish a customer reward system that encourages customers to visit regularly and place more orders in the malls by providing satisfying customer services; and structurally manage customer and business transaction data which can be a reliable source of business insights. Given that thousands of B2B transactions proceed simultaneously and a large number of international buyers from China, Taiwan, and South East Asia, the blockchain-applied customer reward platform of apM malls will collect dispersed customer data in the Dongdaemun wholesale market, provide the quick and effective customer services on the integrated digital platform, and aims to add a digital payment system with high efficiency and security while developing customer rewards as digital currency tailored for the market.

apM Group directly manages facilities for its mall's customers. These facilities include cafes, residence hotels, shuttle buses, lockers, VIP lounges, and purchasing agent services. Although all facilities and services are actively provided offline, due to the lack of structured tools to collect customer data of these facilities, it is difficult to manage the customer data, which can be used for marketing and business strategies. Customers are likely to miss some customer benefits because of the absence of an information-sharing platform for various shopping events and customer service information at the malls. In this regard, apM Group and apM Coin project has formed strategic cooperations as apM Group explored solutions for its integrated customer reward system, which works as a marketing platform for acquiring new customers and building customer loyalty and a digital payment system with the branded customer rewards.

4.2. Service Application in apM Malls

This customer rewards management platform's service areas will be gradually expanded in the apM malls considering the Dongdaemun wholesale fashion market's feature. Most wholesalers of the market are not accustomed to e-payment and integrated data management system, so the system's sudden introduction may make them uncomfortable.

Thus, apM Coin project will gradually deploy its services that fit for apM malls' business so that the malls' wholesaler and customers – who are most actual service users – can spontaneously experience the technology and business advantages of the platform. Also, as this customer rewards platform provides services that accommodate the Dongdaemun wholesale fashion market's needs to acquire apM malls' customers as its primary service users, it can expand its service market to other shopping malls or industry.

4.2.1. The First Rewards Programme for apM Shopping Malls

apM Coin project will provide its customer rewards system to apM, apM PLACE and apM Luxe. The malls' customers can earn customer rewards points – titled a.point – via apM Members mobile app when they purchase products/services in apM Members program partners. The reward points are calculated and collected according to the rewards programme's terms and conditions regarding the rewards rate. The customers can redeem the points for products of their choice in the reward program partners according to the terms and conditions.

apM Coin project will expand the programme partners for rewards redemption and the ways to spend the rewards. It will enable apM Members app to continuously attract buyer customers as loyal app users and encourage the buyers to use the programme.

4.2.2. Mobile App-Only Services for Improving User Loyalty and Shopping Experience

In order to encourage users to use apM Members mobile app spontaneously and continuously, most end-user services will be provided to apM malls' customers and vendors through apM Members app only. Like free shuttle bus and complimentary beverage services, the malls' facilities services will be exclusively offered to the app users, under the objectives of adopting most customers and visitors of apM malls in the beginning stage of app launch. By doing so, the project and apM malls can recognise actual users of these exclusive customer services which were offered to random individuals of the mall visitors. This will allow the project and apM malls to clearly set the target, evaluate their features, and lead them to improve shopping experiences that satisfy actual users' needs.

In addition to the app-only services, apM Members will support apM digital voucher services, which will enable apM, apM PLACE and apM Luxe' wholesale brands and customers to use the app for their business transactions. The entire process for managing, storing and redeeming the vouchers will be available on apM Members app only. apM digital voucher is another brand-new payment option that can be used in apM malls. The voucher is issued on apM Coin's platform and safely managed by blockchain technology. Payment with the digital vouchers is easily and promptly processed as vendors and customers simply scan QR code on apM Members. By utilising apM digital vouchers, apM Coin project will add an efficient digital payment method to support the vendors' businesses while engaging more users to use digital payment services on the app.

4.2.3. Technology Support for Boosting Business in apM Malls

apM Chain Platform will safely record user data when apM Members app users collect and redeem rewards points, purchase and use apM digital vouchers, and use various app-only services. The data will be collected and organised on the project's integrated platform. It will be processed on a data analysis system on apM Chain Platform, and the users will be variously categorised from multidisciplinary perspectives.

Also, the project will share this customer/market data with apM malls' vendors

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through customer management service on the platform. The customer management service is a paid service. After the vendors pay the service subscription fee, they can manage their loyal customers on the integrated system and conduct marketing promotions to the app users. The vendors can also use the customer data to project business insights for business growth and keep up with market trends.

5. apM Chain Platform System Architecture

Application Layer	apM Members Mobile App		Admin Website	
End-user Service	For Customer (Buyer) Use	For Vendor (Wholesaler) Use	For Operator Use	For Engineer Use

Business Layer	Token Management	Voucher Management	Payment	QR Management	Data Management
SDK Layer	Customer Relationship Management (CRM)	VIP Management	Terms & Conditions Management		Others

Blockchain Layer	Ethereum Blockchain	Sidechain (BaaS)

apM Chain Platform is a customer reward platform of apM Coin project. The platform system consists of three layers – the blockchain layer, business layer and application layer.

5.1. Blockchain Layer

The blockchain layer comprises the form of simultaneously applying Ethereum blockchain and BaaS sidechain for efficient operations and security. The layer transparently records all information regarding the terms and conditions of the customer reward program, which become a standard for issuing and using all the programme's digital assets, including apM Coin tokens, a.point customer rewards and digital vouchers. Also, the layer manages the information, ensuring data integrity with blockchain. Since the layer adopts standard protocols, the system is designed to be easily integrated with other services.

5.2. Business Layer

The business layer is formed on cloud infrastructure, and all platform's functions are developed in the form of RESTful API. All business logic of the project's end-user services – including token management, payment system, data collection system, customer management system, VIP management system, terms and condition management systems – are implemented on this layer. The business layer is also equipped with data recording modules to record all business logics' conditions and save all logs on blockchain, and master management modules. As the business layer is developed to easily control API access of each function and integrate with SDKs, partners' applications can use apM Chain Platform functions.

5.3. Application Layer

The application layer is an entry point that users (including customers and wholesalers) can access apM Chain Platform services. apM Member mobile application is a part of this layer as it is developed for users to use the platform services via mobile devices. apM Coin project focuses on providing user-friendly service environments to all ecosystem participants of apM Group, including buyers and sellers.

The mobile app function includes apM Coin token utilisation, a.point redemption and acquisition, digital vouchers purchase and mobile payment. Additionally, the platform operator can use all administrative functions such as managing the loyalty programme terms and conditions and authorising/managing user identity verification. Data engineers or system administrator can manage overall platform data and monitor the system status through a respectively built administrator's website in this layer.

Furthermore, aside from apM Members mobile application, other projects or companies can provide their services to our users through the platform's private API.
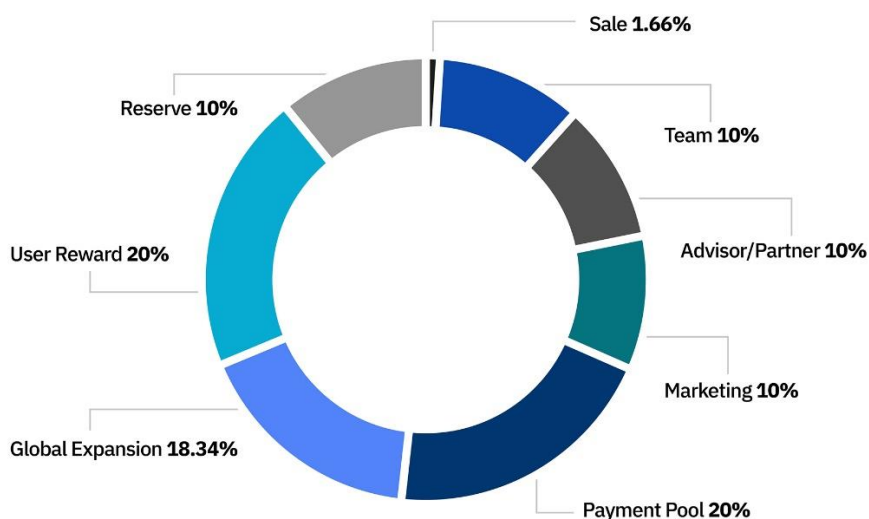
6. Token Economy

6.1. Token Overview

Token	apM Coin
Ticker	APM
Platform	Ethereum
Token Standard	ERC-20
Total Total Supply	1,812,500,000 APM

6.2. Token Metrics

The token distribution plan of the listing token is as follows. However, the following information can be changed as the project proceeds.


Category	Amount (APM)	Ratio (%)	Lock-up Period (From the first exchange listing)
Sale	30,000,000	1.66%	Up to 13 months
Team	181,250,000	10%	1 year
Advisor/Partner	181,250,000	10%	-
Marketing	181,250,000	10%	Up to 1 year
Payment Pool	362,500,000	20%	Up to 2 years

| Category	Amount (APM)	Ratio (%)	Lock-up Period (From the first exchange listing)
Global Expansion	332,500,000	18.34%	Up to 20 years
User Reward	362,500,000	20%	Up to 20 years
Reserve	181,250,000	10%	Up to 2 years
Total	**1,812,500,000**	**100%**	

6.3. Token Utility

apM Chain platform's end-users can use the platform's services via apM Members mobile app. Primary users of apM Members can be categorised into customers who purchase goods in apM shopping malls and vendors who sell goods in the malls' shops. apM Coin tokens will be used as a payment method when the app users purchase apM digital vouchers sold on apM Chain platform and when the vendors access customer management services. Furthermore, for sustainable development of token economy, apM Coin project will permanently lock up or burn the part of apM Coin tokens that are received by providing products/services on apM Chain platform.

6.3.1. Purchasing apM Digital Voucher
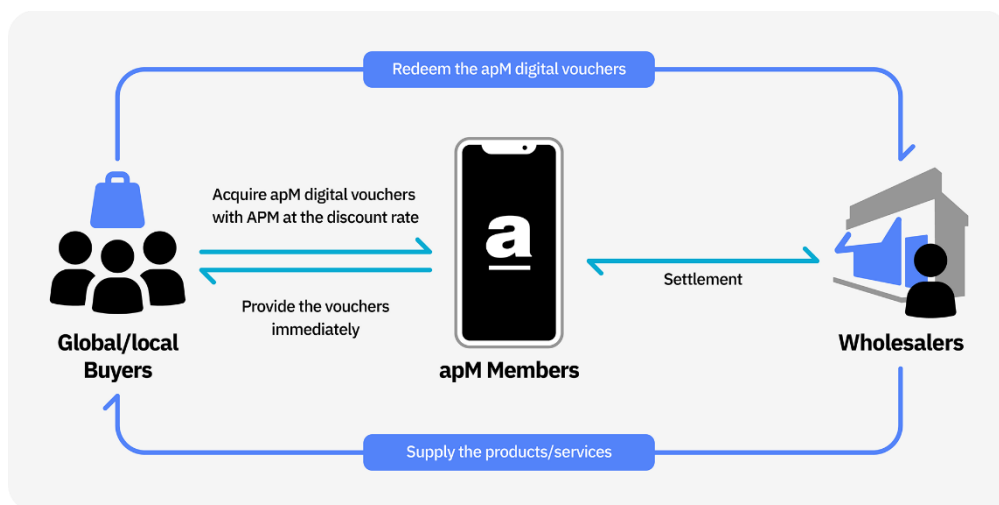
apM digital voucher is a type of electronic prepaid methods, having a fixed amount of Korean Won. The digital voucher can be used as one of the payment options when the app users purchase goods/services in member stores of apM digital vouchers, such as wholesale brand shops, café, food trucks, and snack bars. Customers can buy apM digital vouchers on apM Members app regardless of their geographical and time limitations; the purchased vouchers can be redeemed right after the vouchers are transferred to the app upon payment. The payment methods to buy apM digital vouchers are KRW cash, apM Coin tokens and others. When purchasing the digital vouchers by using apM Coin tokens, customers will receive the highest discount rate.

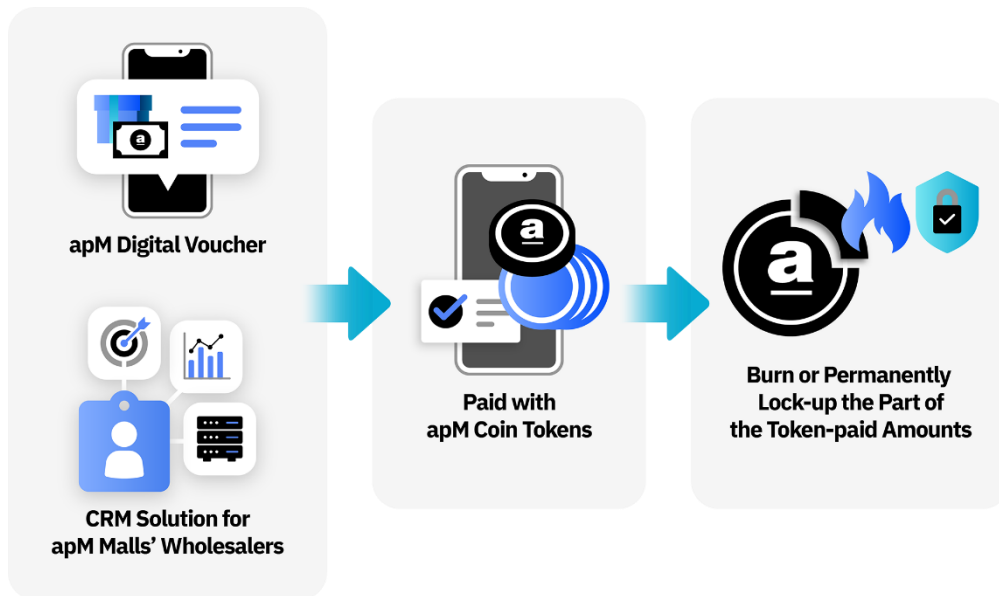### 6.3.2. Subscribing Customer Management Services
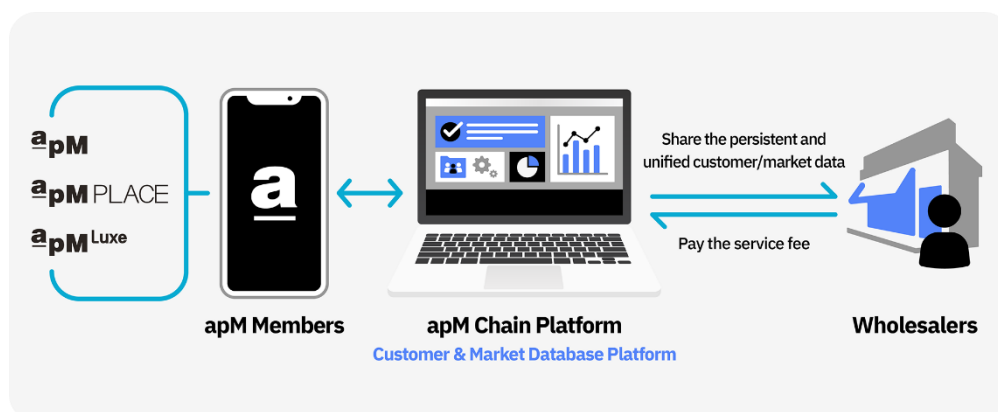
As previously mentions, when customers and vendors use apM Members app, their data will be recorded on the platform. The collected data has all the latest information to grasp the features of markets and app users. The vendors – who are business owners of 1,300 wholesale brands in apM, apM PLACE and apM Luxe – can use the customer management system of apM Coin project after paying the service subscription fee with apM Coin tokens. The customer management system will have functions for analysing customer data, managing loyal customers and promoting the vendor's brands.

6.4. Token Liquidity Management Plan

In exchange for offering apM digital vouchers or the customer management system on the platform, apM Coin project will receive apM Coin tokens. As more customers and vendors make the payment with apM Coin tokens to purchase the vouchers or use the customer management systems, the number of tokens the project receives will increase. For stable and sustainable development of APM token economy, apM Coin project will permanently lock up or burn the potion of the received tokens. Also, for managing liquidity in stable manners, the project will strategically manage the received tokens except for the permanently locked-up or burnt APM tokens.
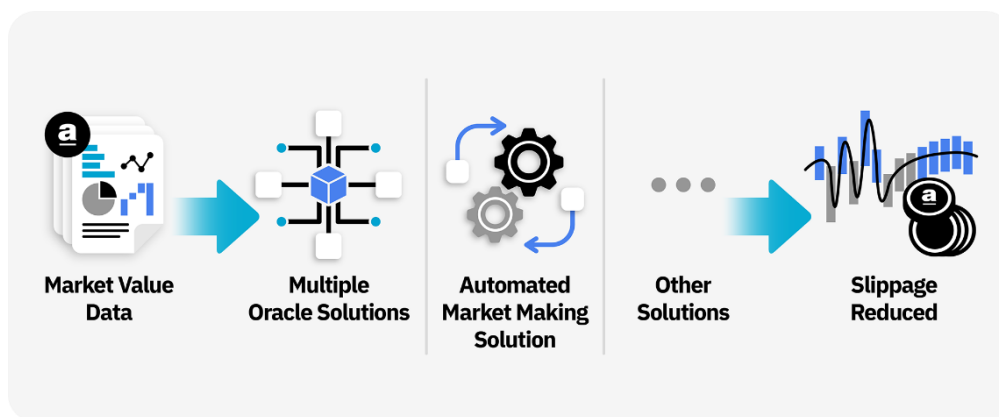
6.4.1. Permanent Token Lock-up/Burn for Sustainable Decrease in Circulating Supply

apM Coin project will permanently lock up or burn a part of APM tokens that the project receives by providing goods/services in the token utilities to the users. The token permanent lock-up/burn is planned to be conducted every half-year. As more users use token-applied services – i.e., purchasing apM digital vouchers and signing up for the customer management services – the increasing number of apM Coin tokens are used in the token utilities, whereas the circulating supply of apM Coin tokens is limited. Thus, the overall circulating supply will be decreased, and so will the maximum circulating supply. The permanent token lock-up/burn ratio will be announced later.

apM Digital Voucher

CRM Solution for
apM Malls' Wholesalers

Paid with
apM Coin Tokens

Burn or Permanently
Lock-up the Part of
the Token-paid Amounts

6.4.2. Multiple Oracle Network and AMM Applications for Minimising Slippage

APM market value can be dramatically distorted for a moment, or high slippage can instantly occur on exchanges, when users buy APM tokens on exchanges to purchase apM digital vouchers or subscribe to the customer management services, or when they make payments with APM tokens for the digital vouchers or the customer management services.

Market Value
Data

Multiple
Oracle Solutions

Automated
Market Making
Solution

Other
Solutions

Slippage
Reduced

apM Coin project will integrate multiple decentralised oracle networks on its token-applied payment solution of apM Chain platform. The oracle networks will ensure the users to receive the most accurate and fair KRW-APM market exchange rates when they make payments with APM tokens on the app. Meanwhile, to suppress slippage, the project will use the APM tokens, which the project gets by providing goods/services to the app users, to provide liquidity through an automated market maker(AMM) system during the settlement cycle instead of selling the received tokens. The project will deal with some price risks related to the settlement cycle.

7. Project Roadmap

STAGE 0 **-Y2020 Q4**	Develop apM Members mobile app Build infrastructure for earning customer rewards and collecting market data Develop a payment system for apM digital voucher in-app payment

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STAGE 1 **Y2021** **Q1-Q3**	Launch apM Members mobile app Launch apM digital voucher Deploy a customer rewards operation system in apM shopping malls: starting from the malls' facilities

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STAGE 2 **Y2021 Q4** **-Y2022 Q2**	Expand apM Member's service areas related to customer reward collection and redemption Adopt apM Coin's digital-asset-applied in-app service

▼

STAGE 3 **Y2022 Q3-**	Expand service areas related to apM Coin's digital-asset-applied in-app services Expand the platform to the global level by partnering with external services

The project roadmap is subject to change during the project implementation.

Legal Disclaimer

This whitepaper is intended to provide information about business models, technologies and teams to those interested in the apM Coin platform and [Listing Tokens and Reward Points (collectively, "apM Tokens")]. This whitepaper is based on the status at the time of the writing (As-is) and whether that the apM Coin team is correct or appropriate for any content, including the conclusion, schedule and performance of the project as it appears in the roadmap for the future is not guaranteed. This whitepaper may change under the policies and decisions of the apM Coin team, and the final version shall take precedence over any changes.

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apM Tokens have no other purposes other than their use in the apM Coin platform outlined in this whitepaper, and their value and functionality are not guaranteed. apM tokens are not securities or investment products. The ownership of apM tokens is not to be constructed as a right to claim any distribution or repayment of profits, etc., to the apM Coin team, nor shall it be constructed as having any intellectual property rights.

Purchasing tokens involves significant risk. You may lose all or a substantial portion of the funds used to purchase the tokens, and the apM Coin team makes no warranties regarding the purchase price or the value of the apM tokens. When you refer to this whitepaper to purchase apM tokens, be sure to understand and accept these risks.

Exclusion of Liability

The information in this whitepaper may be translated into other languages from time to time or used in the communication process with multiple participants. We acknowledge that there may be changes or misinterpretations in the course of such

translation or communication. Since the Korean whitepaper on the homepage has the highest overriding effect, it is your responsibility to verify the whitepaper with the highest priority.

The apM Coin team notices and explains the risks as follows. The apM Coin team does not make any representations or warranties concerning any of the following risks described by the apM Coin team. The risks below are entirely bone by apM Token buyers and participants in the apM Coin platform.

Warnings about Future-forecasting Statements.

This whitepaper contains information about plans and practices ("Future Plans") at this time. These plans are expressed with words and phrases such as "can", "will do", "expect", "anticipate", "goal", "predictions", "intend", "plan", "look for", "believe", "potential", "continue", "it will be there", and these words were used based on the assumptions and analysis that are considered reasonable in light of the [apM Coin] team's experience, current situation, the anticipation of future developments and other factors. However, there are risks and uncertainties in the contest, and the actual results and outcomes of the [apM Coin] project may be different from plans.

Potential Risks

Before deciding to purchase and participate in apM tokens, we strongly encourage you to carefully read and understand the elements and risks involved. Risks include but are not limited to: Tokens or coins are closely scrutinised by various regulatory agencies around the world, including the SEC, and apM tokens may be considered as securities in many countries, including the United States. In this case, the terms of the securities law may limit the possession of more than a certain amount of apM tokens, transfer of apM tokens may be restricted, certain conditions may be added for selling apM tokens and other related Business that facilitate exchange or transfer may be restricted.

You may lose your apM tokens due to the loss of your private key to your digital wallet. If access to the private key is not possible due to loss, destruction or damage of the private key, the holder may not have access to the blockchain-based digital assets, such as the apM token, and the apM Coin team cannot restore it.

Smart contract technology is still in its early stages of development, and its application involves significant risks associated with operational, technical, regulatory, and financial factors. A smart contract may not be suitable for the original purpose, and deficiencies, vulnerabilities, or other issues that may be inherent in the smart contract may cause technical problems or loss of apM Coin tokens.

Potential participants, such as individuals and companies, may choose not to participate in apM Coins or use apM tokens after launch. Their awareness of such coins/tokens and their potential use may not be high. Also, apM Coins may not be operational. In such cases, the value of apM tokens, etc., can be significantly reduced or lost.

The apM Coin function includes the storage and transmission of personal information of participants, and it is exposed to the risk of leakage of personal information due to security problems caused by various methods, such as cyber terrorism. Although the

apM Coin team will take various security measures, like preventing unauthorised access to the database, privacy violations could still occur for several reasons. This can result in legal and financial loss, loss of confidence, such as a decline in the reputation of apM Tokens and may have a negative impact on apM Coin project.

The risk of government regulation on blockchain-related industries is increasing. Depending on whether the government is regulating the blockchain industry and the level of government regulation, the Business of these companies may be significantly affected, directly or indirectly. The apM Coin team strives to comply with relevant laws and regulations and ensure stable operation within limits permitted by law to ensure the sound development of blockchain technology.

However, due to future legal regulations, apM Coin project may be negatively affected; moreover, if government regulatory measures are taken against apM tokens, a considerable amount of time and resources may be spent to respond.

apM COIN