



Blockchain-powered
Customer Rewards Management Platform

WHITEPAPER_English

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1. Abstract

apM Coin project aims to build a customer reward management platform that is optimized for on-/offline business transactions.

A customer reward system can be considered a form of e-money since customer rewards are pragmatic and can be managed by a computer system. However, as most reward systems are built and managed by private organizations like companies/corporations, the systems own risks and limitations including system volatility, interoperability with other systems, and security. This confines the customer reward systems being recognized as an e-money.

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

apM Group, a dedicated partner of apM Coin, as a successful corporation in the Dongdaemun fashion wholesale market for 20 years has grown its reputation from the superior quality and fast adoption of the latest trend among other wholesale markets. Along with the apM Group's plan to implement its own customer reward system under the objectives of leveraging its competitive advantages, apM Coin will cooperate with the company to create its customer reward platform utilizing blockchain and cloud network. Through this platform, the project is planning to collect dispersed market data efficiently, provide advanced customer services on an integrated digital platform, and add an efficient and secure digital payment system while developing customer rewards as a digital currency that is well compatible with the market.

Additionally, based on a mass adoption use case with the apM Group, apM Coin will extend the platform's service areas to other industries or companies to improve its scalabilities.

2. Market Analysis

2.1. State of Customer Reward Management Market

According to Fortune Business Insights¹ 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 in order to retain customers and encourage repurchase.

As per an Jan 2019 article of Kookmin Ilbo² about the Korea's largest five loyalty programs -- 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; OK Cash 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 largest loyalty program in Korea -- is in 20-30s; the number of its members is increasing 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 2016³, the total sales of Korea's apparel wholesale market exceeded KRW 33,491.7 billion; 90% of the sales occurred in the wholesale market in Seoul, generating KRW 30,109.8 billion. Due to unique features of the

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

apparel industry ecosystem, 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 2019⁴, the market size of the Dongdaemun fashion market 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.

2.3. Limit of Current Customer Reward System

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

Customer rewards own the features of a currency. The rewards can conduct three functions currency which are the means of payment, a unit of account to measure values, and store of value. Since most reward systems are issued by private organizations like companies, in electronic form, the rewards can be understood as the digital currency 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 and customers cannot

⁴ Yeongeun Kim, "'1인 마켓· 데이터'입고 진화하는 동대문 패션 시장 (SNS indi markets, data analysis...Dongdaemun 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

be guaranteed that customer rewards' terms will be fulfilled, and it is difficult to enforce fair compensation and protection by law enforcement.

Loyalty programs are widely known as effective 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 timeline of business. Despite merchandise and service providers contributes significant resources to operating their reward points programs, they still have limited access to consumer data.

3. apM Coin Project

3.1. Project Objectives

As mentioned in a previous chapter, customer reward programs are effective 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 their own post-purchase satisfaction, customer rewards have become another revenue stream.

Due to the rise of K-cultures i.e. K-pop, K-drama, etc., in a global market, there are increasing demands about 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 Dongdaemun fashion cluster -- Chinese customers acknowledge them as premium products.

As previously mentioned, Dongdaemun wholesale fashion market can be described as a huge offline B2B platform where thousands of Korean and global buyers pay regular visits to place orders for business purposes -- more than 20,000 wholesalers generates trillions-won of sales revenue and its B2B business account for 90% of the market⁵. In spite of its massive market size and high ratio of global buyers, it is difficult to find a well-organized customer reward system in Dongdaemun wholesale market, which can manage/use customer data systemically and promote sustainable customer relationships 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 integrated management system of buyer data.

⁵ Yeongeun Kim, “1인 마켓· 데이터'입고 진화하는 동대문 패션 시장 (SNS indi markets, data analysis...Dongdaemun 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

3.2. Blockchain-powered Solutions

In 2016, Deloitte Center for Financial Services⁶ published a report about how blockchain technology can improve existing customer reward management systems. It 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 key factors described in the Deloitte's report, apM Coin is planning to provide an enhanced customer reward management system with following features:

3.2.1. Establishing CRM Platform for B2B Market

By providing a customer reward platform optimized for the B2B market where its majority of customers are global buyers, the project aims to efficiently collect dispersed customer data of the Dongdaemun fashion market and provide quick and effective customer services that meet the needs of users. 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. Developing these functions of the technology, the project is planning to provide an efficient and secure digital payment system in the market by developing customer rewards as a payment method optimized for the wholesale fashion market.

3.2.2. Real-time Reward Management & Improved Interoperability

Under the current law, customer rewards are legally interpreted as conditional bonds and customers cannot be guaranteed that customer rewards' terms will be fulfilled; it is difficult 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 functions of the platform to share real-time information with increased

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

transparency, which allows users to earn, redeem, monitor customer rewards instantly.

Furthermore, blockchain protocols can also enable reward issuers of the platform to be interoperable with other issuers in the platform. Thousands of B2B business transactions occur at the same time; as the majority of customers are global buyers from China, Taiwan, and South East Asia in particular, the market has a strong possibility to cooperate with other industry including lodging, transportation, logistics service providers. High interoperability of the platform can expand opportunities to cooperation with more partners of other industries/businesses, which may lead to customers can receive and enjoy more benefits offered by more reward issuers of the platform.

3.2.3. Security-enhanced with Tokenization



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

Blockchain technology can improve the security of the platform because customer rewards are tokenized with eigenvalue, and are hard to be hacked, forged or changed. Also, apM Coin project will manage a customer reward system across multiple nodes,

which lead to limiting operational risks and enhancing security and reducing costs of trust.

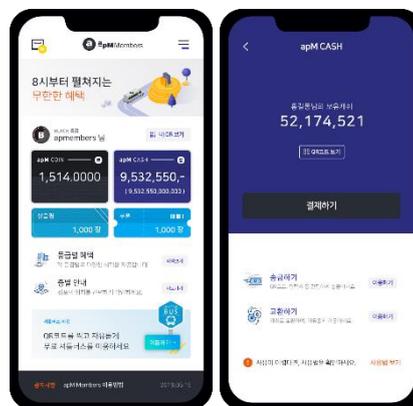
3.2.4. Transparent Terms and Conditions of Loyalty Program

Reward-issuing companies have to notify the customer of the rewards of contract at the time of execution and terms of reward programs can not be changed unilaterally. However, in most cases, consumers have not acknowledged the unilateral variations of terms and conditions of the reward programs, such as changing payment terms with reduced benefits and discount rates of customer rewards.

apM Coin project aims to secure the means and appliances that protect the right of the customers(buyers) and franchisees(sellers) by transparently managing a reward payment rate and discount rate. When modifications and adjustments to the terms are made, the data will be recorded on the blockchain. Agreements between consumers and customer rewards management entities are guaranteed by a third party through a smart contract and neither party can unilaterally change or violate the terms.

3.3. Service Model

3.3.1. End User Services via Mobile Application



In terms of technology adoption in a real-world life, usability is one of the most important factors that should be counted. apM Coin project will launch the mobile

application, apM Members, where buyers and wholesalers can use the platform services of the apM Coin project through their own mobile devices, with ease.

Through apM Members mobile app, buyers can earn and redeem reward tokens (customer rewards) and get updated on the latest shopping information about several customer benefits and events at the malls. The app will include a digital payment function where customer rewards can work as one of the payment options. Cooperation with existing payment services, the project is planning to increase business scalability and enhance shopping convenience.

3.3.2. Customer Rewards System with Tiered Customer Benefits

The core of apM Coin project is a customer reward system with tokenized rewards. A customer reward program is an effective marketing tool to attract customer's loyalty towards a company and amply customer engagement. apM Coin project will launch a customer reward program which includes various customer benefits preferred by B2B market customers; users of the program can easily access to digital applications like apM Member mobile app. Customer can receive benefits including reward tokens or mobile coupons upon their purchase of goods/services; they can enjoy exclusive VIP benefits if customers deposit a certain amount of apM Coin tokens to the platform.

As mentioned in a previous chapter, customer reward programs are effective 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 their own post-purchase satisfaction, customer rewards have become another revenue stream.

3.3.3. CRM System for Wholesale Market

Users of the project's customer reward platform can be categorized into customers (buyers) and wholesalers(sellers). While the customers experience several benefits of the program via a mobile application, their user data is collected on the platform. These data can be an efficient market information to understand customers' buying

behaviors. Wholesalers can have an access to these collected customer data after paying a deposit with a certain amount of apM Coin tokens. Using these data, the wholesalers can manage their own customers based on their business strategy and develop business insights for growths.

3.3.4. Digital Payment Solution with Reward Tokens

As adding rewards tokens in the ecosystem, it is expected that reward tokens would function as an additional payment method through a digital payment system in the wholesale market. Reward tokens are managed on the blockchain network which makes the rewards highly secure, can be traded in a peer-to-peer(P2P) format. The project is planning to add a digital payment solution featuring the reward tokens, which would lead to establishing faster and more efficient trading environment between customers and wholesalers.

The services of the apM Coin project are operated on apM Chain Platform built with blockchain and cloud infrastructure. The platform with blockchain technology will verify and record information about terms, conditions, and operation of the reward program on the blockchain network. The rewards of buyers and sellers will be managed by their mobile devices and the generated and collected data from the devices will be monitored and handled by apM Chain Platform via a blockchain network. The platform will also enhance compatibility with other blockchain networks, services or IPFS(InterPlanetary File System) through SDK(Software Development Kit) and API(Application Programming Interface).

4. apM Coin Ecosystem

4.1. Cooperation with apM Group

It is most important that partners of apM Coin project actively adopt and implement their customer reward systems using apM Chain Platform. The first key partner of the project is apM Group, the leading player in the Dongdaemun wholesale fashion market.

4.1.1. apM Group Introduction



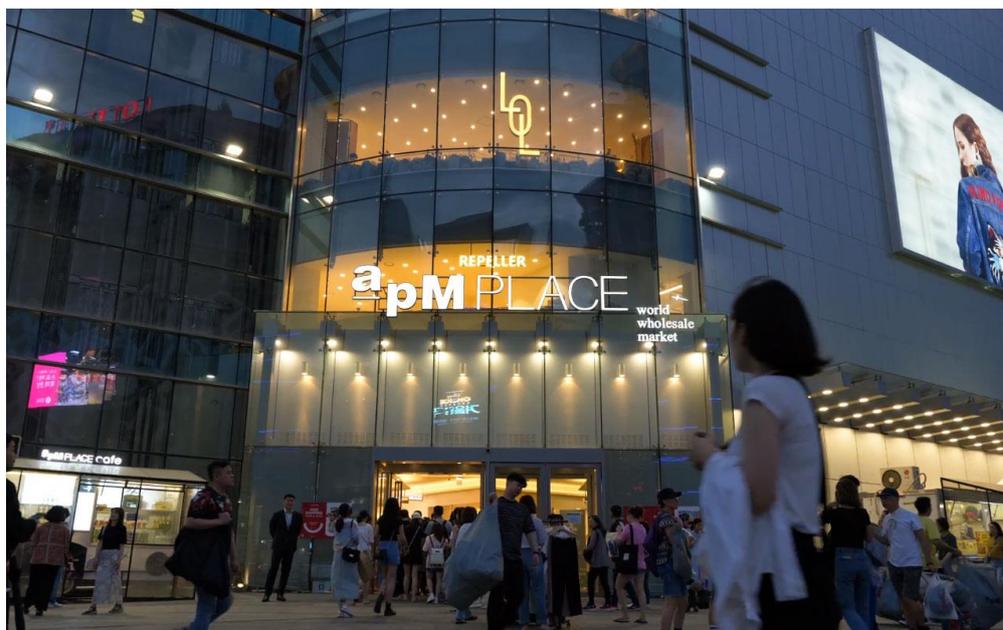
Category	apM	apM PLACE	apM Luxe
Market Size	10,000 of average daily visitors; 150 millions of culmulative annual visitors; 80% of global buyers		
Opening Year	1999	2016	2012
No. of Floors	11 stories (LL2 to 9 th floor)	16 storeis (LL4 to 12 th floor)	8 stories (LL2 to 6 th floor)

Category	apM	apM PLACE	apM Luxe
Floor Information	8 th -9 th floor: Office 4 th -7 th floor: Men's wear LL1-3 rd floor: Women's wear	4 th -8 th floor: Premium brands of women's wear (<i>Diamond floor</i>) 1 st -3 rd floor: Women's wear LL2-LL1: Accessories 9 th -10 th floor: Office 11 th -12 th floor: Residence hotel	1 st -6 th 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 largest wholesale shopping malls in Dongdaemun fashion cluster, apM, apM PLACE, and apM Luxe. Since it opened the apM mall in 1999, apM Luxe in 2012 and apM PLACE in 2016, the company has led the trend of Dongdaemun wholesale fashion market 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 which 80% of them are visited from abroad. To improve global buyers' customer satisfaction, apM Group has provided various services such as translation, shuttle bus, accommodation at its own 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. The Objectives of Cooperation with apM Group

Dongdaemun apparel market is one of the top five global fashion meccas. The market has enhanced the presence of K-fashion in an international fashion market as 75% of wholesale clothing products are exported overseas. Demonstrating the popularity of Korean fashion, 20% of the Chinese unbranded clothing market are originated by Dongdaemun. 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 realized because of Dongdaemun's geographical advantages, which combine strategic planning, production, and distribution.

However, 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 computerized, 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 is not fully implemented a well-structured big data management system about its market and customer data.

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. Considering thousands of B2B transactions occur simultaneously and large 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 the 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 purchase of goods by agents. 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 collect 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, a cooperation between apM Group and apM Coin project has been formed as apM Group launches a customer reward system in the malls to take advantage of the system's marketing benefits like acquiring new customers and building customer loyalty, while the company is planning to add a digital payment system with the function of buying and redeeming customer rewards.



4.2. Service Application in apM Ecosystem

The service areas of this loyalty management platform will be gradually expanded in the apM malls considering the feature of the Dongdaemun wholesale fashion market. Most wholesalers of the market are not accustomed to e-payment and integrated data management system so the sudden introduction of the system may make them uncomfortable. Thus, apM Coin Project is planning to evenly expand the service areas of the customer reward platform in the apM malls, the massive offline wholesale market platform, so that actual platform users, wholesalers and buyers of the malls, can have a sufficient time to experience the service benefits and be adopted to this digital platform.

As the apM Chain Platform can provide the services that accommodate the needs of the Dongdaemun wholesale fashion market at its best level and secure wholesalers and buyers of apM malls as its users, it is expected that apM Chain Platform can expand its business area to other shopping malls or industry.



4.2.1. Tiered Loyalty Benefits

Customers can earn customer rewards when purchasing fashion goods at apM malls or using the facilities of the malls. A ratio of purchased amounts is converted into customer rewards and accumulated in the apM Chain Platform; the data generated is then recorded in the apM network. The more customer rewards a buyer earns, the more likely he/she is to acquire loyalty benefits of the apM ecosystem.

- Customer Benefits by Reward Level (Tentative)

Level	Reward Requirements	Exclusive Benefits
White	Below 10,000	<ul style="list-style-type: none"> • Shuttle bus transportation • Luggage service • Newsletter from apM shopping mall
Blue	More than 10,000, below 20,000	<ul style="list-style-type: none"> • Benefits for White level included • Free coffee (once per month)
Silver	More than 20,000, below 50,000	<ul style="list-style-type: none"> • Benefits for Blue level included • Free coffee (2/month) • Free size upgrade on a beverage at cafes • Free shipping services (1/month)
Gold	More than 50,000, below 80,000	<ul style="list-style-type: none"> • Benefits for Silver level included • Complimentary accommodation at the apM residence hotel (1/month) • Free purchasing agents service (1/month)
Platinum	More than 80,000	<ul style="list-style-type: none"> • Benefits for Gold level included • Complimentary accommodation at the apM residence hotel (2/month) • Unlimited access to VIP lounges • Data-based MD services for orders

4.2.2. Data Collection and Uses

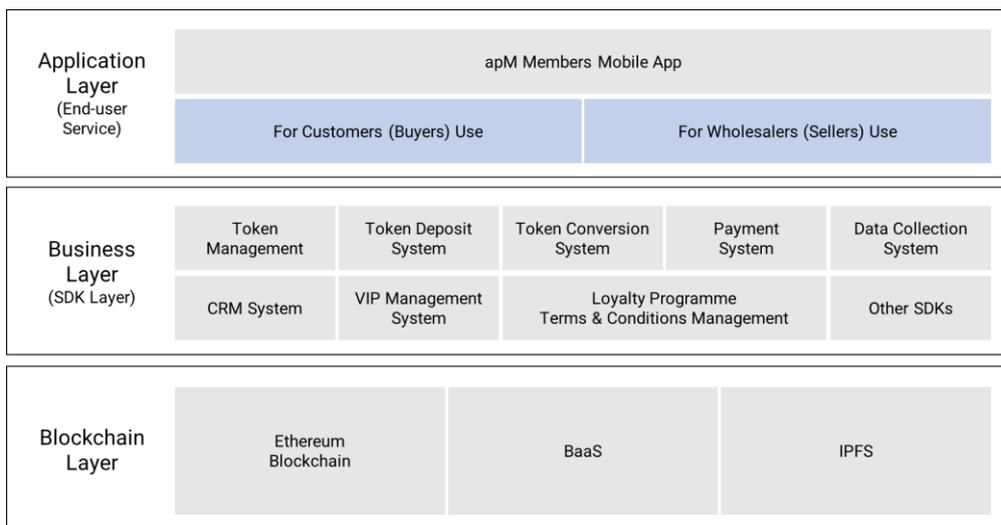
apM Chain Platform will collect customer data of apM malls via apM Members mobile application and the collected data will be used for business growth such as building customer relations and launching marketing campaigns. If data is merely collected and a process ends there, the data may become obsolete. Performing as the CRM platform, apM Chain Platform will analyze the collected customer database which can presume the buyers' features such as customer's flow and shopping preferences. The wholesalers registered for apM Chain Platform will be shared market insights that are projected from the analyzed data; utilizing these insights, the wholesalers can have their own business insight for business growth and respond to market changes. Also, the insights can be used by the platform and malls to develop customer services which will lead to new systems for buyers and sellers and improvement of shopping experiences.

4.2.3. Quick & Simple Payment Option

It is expected that reward tokens can be developed as an additional e-payment method that can create more business transactions between wholesalers and customers. Reward tokens, working as customer rewards, are managed on the blockchain network which makes the tokens highly secure, can be traded in the peer-to-peer(P2P) format. Customers can use apM tokens as a digital currency when they use facilities of apM malls, cafés, shuttle buses, residence hotels, lounges, etc., which are directly managed by apM Group. They can engage in P2P transactions through digital currency when available in the online shopping mall.



5. System Architecture of apM Chain Platform



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

5.1. Blockchain Layer

The blockchain layer comprises the form of simultaneously applying Ethereum blockchain, BaaS and IPFS under the objective to achieve efficient operations and security. In this layer, all assets of the reward program (including tokens of apM Coin project, digital gift certificates and coupons) are tokenised and the integrity of the assets are ensured. Also, this layer records all information of terms and conditions of the customer reward program - which present a standard with related to generating and using the assets in the platform. All histories of tokenised assets are transparently recorded in a published network; since the layer adopts standard protocols, the system is designed to be easily integrated with other services.

5.2. Business Layer

The business layer adopts the form of integrating a cloud system and blockchain network. All functions of apM Chain Platform are developed in the form of API. This layer includes all functions of the platform that end-users can use through the

application layers – token management, token deposit, token conversion, payment system, data collection system, CRM system, loyalty level and VIP management system, terms and condition management of the loyalty program --; and all functions for system admin's use to manage a legacy cloud system. Since the business layer of apM Chain Platform is developed to easily control API access of each functions and integrate with SDKs, partners' applications can use the functions of apM Chain Platform.

5.3. Application Layer

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

The mobile app features a digital wallet function that can store tokens of apM Coin project, and a digital payment function including redemption/ use of reward tokens, receipt/use of gift certificates and coupons. Also, administrators of apM Coin's customer reward platform can use administrative functions such as managing terms and conditions of the loyalty program, and authorising and managing KYC verification of the users through the mobile app or private website; 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.

In addition to apM Members mobile application, other projects or companies can provide the services to our users by applying SDKs of apM Chain Platform.

6. Token Economy

6.1. Dual Token System



apM Coin project operates in dual token structure — apM Coin (“listing token”, token ticker: APM) which can be freely traded and apM Cash (“reward token”) which is used as customer rewards in the platform — which can resolve settlement issues and may act as a currency.

The listing token, apM Coin, is based on ERC-20 and is freely tradable after being listed on exchanges. The token has value fluctuation and will be compatible with apM Cash, the customer rewards, where mass adoption can be carried out efficiently to expand further the apM Coin Platform. The converting rate between apM Coin and apM Cash is planned to be determined as per the algorithms of circulation and frequency of apM Cash. The details on the token conversions will be officially announced after several rounds of trial tests in real-world adoptions.

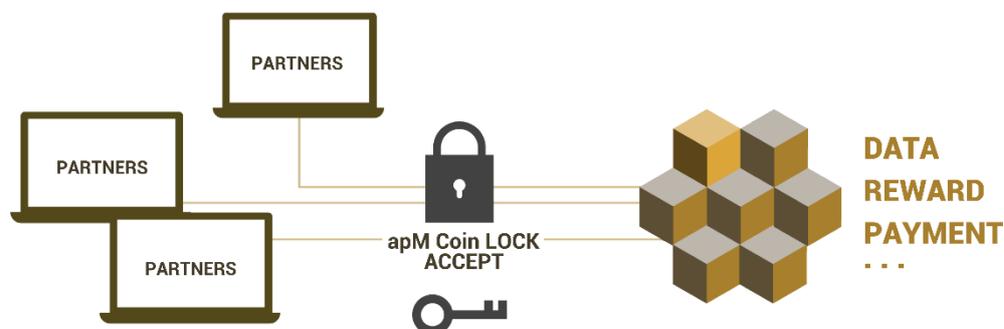
The reward tokens are issued and managed through a token management system in apM Chain Platform in order to promote real-world adoption instantly and accurately. This token has a fixed value of KRW 1 per 1 apM Cash on apM Chain Platform and will not be listed on an exchange to allay concerns about value volatility.

Partners of apM Chain Platform can use apM Coin and apM Cash for their business; exchanging between apM Coin and apM Cash will allow indirect transfer and value conversion where users have more control over their intangible assets than other existing reward points systems.

6.2. Token Utility

The users of apM Chain platform can be categorized into two types: customers (buyers) who earn and redeem customer rewards using apM Members, and sellers(wholesalers) who provide and get paid with customer rewards using sales management services on apM Chain Platform when customers place orders.

6.2.1. Token Deposit for Data Uses



Sellers are required to deposit a certain amount of apM Coins, the equivalent of KRW 50,000 per annum (as of whitepaper written; the amount can be subject to change at the time of service launch) in order to have access to a sales management system on apM Chain Platform. The sales management system includes payment services, customer reward management, and data analysis services.

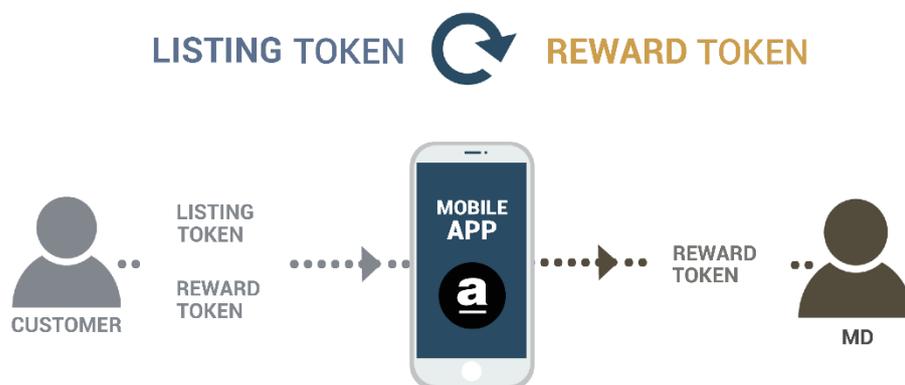
When sellers deposit the listing tokens to use the platform services, the value of apM Coin can be estimated based on the average market price for the last one week at the time of deposit. Since the price of apM Coin is equivalent to a fixed value of deposit amount for the service access, the number of apM Coin for deposits can be dramatically increased when the listing token value is extremely low in a market. To prevent such cases, the price of the listing token can be approximated to KRW 100 if an average listing token price of a previous week is lower than KRW 100 (considering KRW 100 is the market's perspectives on lower limit value).

6.2.2. Access to Customer Service Facilities

Access to customer service facilities can be varied by previously mentioned customer loyalty categories. The apM tokens can be used in facilities of apM shopping malls as following:

- Benefits for all apM Members users (token wallet holders): shuttle bus, luggage services
- The utility of reward tokens: extra benefits at the cafes, residence hotel, access to VIP lounge, online shopping mall
- The utility of listing tokens: Access to the exclusive VIP lounges (for who deposits apM listing tokens), token payment for the increase of rental deposit in the future (tentative)

6.2.3. Payment Option



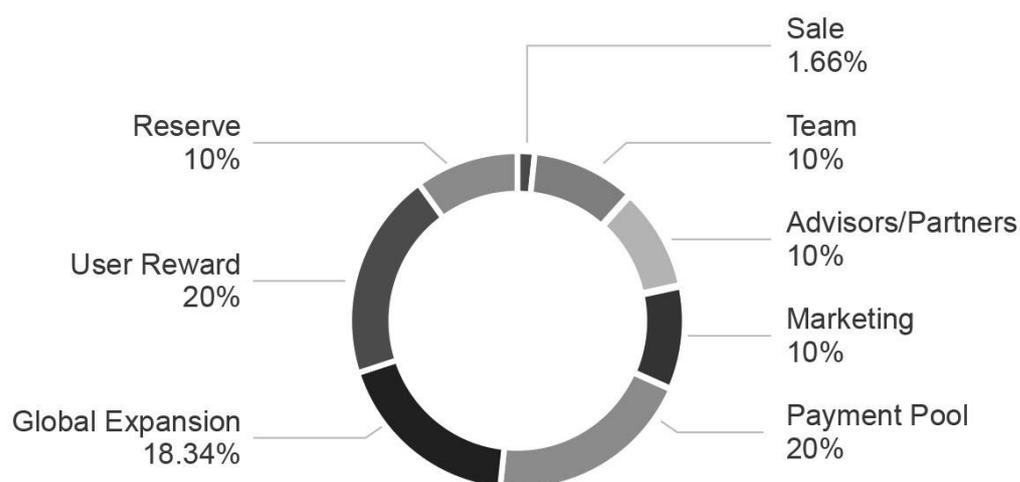
Customers can easily purchase products and services with the tokens after converting the listing tokens (apM Coin) to the reward tokens (apM Cash) via a mobile application. When a customer transfers the listing tokens, it is automatically converted into the reward tokens, and the converted reward tokens are transferred to wholesalers. apM Coin project is planning to expand the ecosystem by applying a token conversion function between apM Coin and apM Cash.

6.3. Token Issued Information

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

6.4. 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	Ratio	Lock-up Period (From the first exchange listing)
Sale	1.66%	Up to 13 months
Team	10%	1 year
Advisors/Partners	10%	-
Marketing	10%	Up to 1 year
Payment Pool	20%	Up to 2 years
Global Expansion	18.34%	Up to 20 years
User Reward	20%	Up to 20 years
Reserve	10%	Up to 2 years

7. Project Roadmap

<p><i>STAGE 0</i> -Q2 2020</p>	<p>Develop apM Members mobile app Build infrastructure for earning customer rewards and gathering market data</p>
▼	
<p><i>STAGE 1</i> Q3-Q4 2020</p>	<p>Launch apM Members mobile app Adopt operating system for customer rewards services focusing on apM facilities</p>
▼	
<p><i>STAGE 2</i> Q1-Q4 2021</p>	<p>Add apM Coin token-applied reward service Expand apM Member's service areas to reward collecting and redemption</p>
▼	
<p><i>STAGE 3</i> Q1-Q4 2022</p>	<p>Develop SDK for engagement with external services Expand the platform to the global level by partnering with external services</p>

The above project roadmap is based on current progress and subject to change.

8. 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 in accordance with the policies and decisions of the apM Coin team, and the final version shall take precedence over any changes.

The information or analysis contained in this whitepaper does not contain any recommendations to encourage you to participate in this project. This whitepaper is not an investment advisory, nor a document to recommend an investment in securities or financial products, and in addition to the information contained in this whitepaper, we recommend that you seek the advice of a specialist to ascertain any risk assessment, application of applicable laws or taxation.

You are solely responsible for any damages, losses, and expenses resulting from the decisions you make in references to or use of this whitepaper, and the apM team does not assume any responsibility for such decisions or actions.

This whitepaper contains information about third parties and publications. The apM Coin team makes no warranty as to the accuracy or completeness of such information and assumes no obligation to update, modify, or alter this whitepaper, even if such information changes.

This whitepaper is not reviewed or approved by regulatory authorities, nor does the publication, distribution, or dissemination of this whitepaper signify that this whitepaper complies with all applicable laws and regulations. In some cases, the publication, distribution, and dissemination of this whitepaper may be prohibited or restricted by applicable laws and regulations. Moreover, regulatory authorities may

restrict the sale, possession, use, and retention of apM Tokens and these regulatory actions may affect the sale and use of apM Tokens.

apM Tokens have no other purposes other than their use in the apM Coin platform set forth in this whitepaper, and their value and functionality are not guaranteed. apM tokens are not securities or investment products, and 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 contained 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, and 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 with respect to any of the following risks described by the apM Coin team, and the risks below are entirely borne 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, 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 read and understand the elements and risks involved carefully. Risks include, but are not limited to: Tokens or coins are closely scrutinized 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 tokens.

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

The function of the apM Coin 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 unauthorized access to the database, privacy violations could still occur for a number of reasons. This can result in legal and financial loss, loss of confidence, such as a decline in the reputation of apM Coin and apM Tokens, and may have a negative impact on the apM Coin project.

The risk of government regulation on blockchain-related industries is increasing. Depending on whether or not 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 the limits permitted by law in order to ensure the sound development of blockchain technology.

However, due to future legal regulations, the 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.

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