



SangGaToken Whitepaper

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SGT for an era of
blockchain in daily life

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1. Summary

An ecommerce market has grown to play an influential aspect of worldwide commerce in the light of recent events. A combination of both advancements of information and communication technology and the deep impact of Covid-19 pandemic has developed a perfect condition for the public to become comfortable with ecommerce, especially mobile commerce. Numerous statistics prove this claim to be true, reporting the increase in the sales of small business owners that have actively utilized mobile commerce.

Yet these statistics fail to exhibit ecommerce's downside of their growth. Monopolistic market platforms foster an overly competitive environment between small businesses with excessive fees. This is the problem that has motivated a group of young Korean revolutionaries and people of different expertise to form Team QUUS. SGT Project was launched by Team QUUS in July of 2019.

Team QUUS has developed an application called SangGaTalk for the purpose of determining the core problem on the field. South Korea was chosen as a test field for being one of the OECD countries with the fiercest competition among small and medium enterprises. The field experiment was maintained for two years and became the basisl for the development of three solutions: blockchain based cryptocurrency called "SangGaToken" (hereafter referred to as SGT), economic system which is operated by SGT, and location-based service marketing platform "SangGaTalk application" (hereafter referred to as SGTalk).

The above three solutions constitute an ecosystem dedicated to both consumers and small business owners as an alternative to the centralized systems all over the globe. The ecosystem makes it possible for immediate and intimate transactions and bridges ecommerce business and brick-and-mortar stores. These two parties will not have to be bound and limited to the market constructed by the existing systems. As a result, all small business owners will transition into a decentralized SGT ecosystem and create an environment where two parties simultaneously benefit.

SGT Project and QUUS team was created with the sole purpose of benefiting small business owners only. As such, both the team and project do not prioritize profiting off the ecosystem. With that clearly established, Team QUUS welcomes and encourages all the other interested persons or groups in expanding SGT ecosystem.

2. Body

1) Problems

At the end of the 2 years of field experiment, Team QUUS has identified and summarized the central problems to be

- ① Diluted marketing due to multiple platforms,
- ② Volatile characteristics of the big market,
- ③ Monopolism of online platform, and
- ④ Third-party payment systems.

QUUS team has set these four categories of problems as a hurdle for SGT Project to overcome and save small businesses.

(1) Marketing Across Multiple Platforms

Mobile commerce has grown at a fast pace thanks to popularization of smartphones and mobile applications. Business owners who have first started as a simple user have recognized the potential importance of mobile commerce and have expanded their business across different mobile platforms. Unlike those of brick-and-mortar businesses which require a lot of time and finances, online stores require little effort in setting it up and are comparatively more flexible for many business owners. Business owners simply had to pick a platform, sign up, and their business was established. Mobile commerce became an irresistible option for small business owners as a way to quickly start their business.

However, the accelerated growth of the mobile commerce market has resulted in harming business owners in the form of multiple social platforms. Business owners would often post ads in a competitive manner to multiple platforms. Although the expenses for the targeted advertisements increased, the increase of customers and sale rates has plateaued to the point of creating a cycle of poor advertisement managements. Additionally, the numerous advertisements that have been distributed through the platforms have either given a negative impression or achieved contrary to the original goal.

In the famed experiment by Iyenger and Lepper,¹ it shows that the number of choices and the consumer's satisfaction showed an inverse relationship after a certain number. The negative effect of too many choices available is termed "decision paralysis", a phenomenon that can be observed with many customers. Customer's decision to buy a certain product from a certain brand has shown to decrease if they are exposed to the advertisements too many times, which has consistently shown to be true even in the case of loyal customers².

1. <https://hbr.org/2006/06/more-isnt-always-better>

2. <https://www2.deloitte.com/us/en/insights/focus/behavioral-economics/overcoming-decision-making-paralysis.html>

(2) Volatile Characteristics of the Market

As a side effect of increased time spent on the internet and overload of information, the consumer's attention span for consumption has been observed to become shorter as of late. This implies that business owners have to quickly and efficiently work and improve upon their strategy to promptly catch the ever-decreasing interest of the consumers according to their taste and needs. For business owners who have to complete other necessary jobs related to their business, it is near impossible to expect them to be able to come up with proficient advertisements at the right time, right place. This problem can be addressed by employing professional advertising agencies. Yet the expensive fees of employing agencies or persons are a huge deterrent for the majority of small business owners.

In addition, the act of analyzing consumer behaviors and producing targeted advertisements is an impossible task for a single man. Numerous platforms and a diverse population of users within each platform makes it difficult for small business owners to target their advertisement efficiently on their own. Besides, there is no clear way of determining if the statistics provided by the platforms are accurately reflecting the true interest of the consumers or if the advertisements are targeting the right consumers. Statistical approach to this problem is thus still an unconventional method for most of the small business owners. Tried-and-true methods of advertisements such as flyers and SMS advertisements are thus more popular with small business owners, even those who have felt the need to expand their business online.

(3) Platform's Monopolistic Status

Out of all the success stories of mobile commerce, O2O platform businesses such as food delivery applications have seen the most success. The key to success lies in the fact that utilizing O2O platforms requires no technical skills for the business owners, becoming one of the most efficient ways of running one's business. As of recently, it became a necessary part of running a business. This created a positive feedback loop in which a particular platform's popularity itself can ensure consumers visiting the store, which further highlights the importance of utilizing O2O platform for small business owners.

Although the O2O platform offers many positives, it is ultimately a business constructed to prioritize their profit over all the signed up members of business owners. These centralized and monopolistic platform's inherently foster competitions between businesses in order to provoke the owners into spending more into advertisements. Ultimately, business owners find themselves having to pay fees for using the platform which is slowly raised for the increased number of users of the platform. The total sum of these fees take a majority of the profits earned from the platform. These problems of concentrated industry of centralized O2O platform such as monopoly, clear favoritism towards a more popular brand, excessive fees are topics that are constantly pointed out and argued upon. Yet despite these controversies, O2O commerce mobile platforms are still leading platforms. Small business owners are left with no choices in the light of these circumstances.

(4) Third Party Payment Processing System

Paypal, VISA, banks, and other payment processing companies are another centralized, monopolistic system that causes additional fees by inserting themselves between the business owners and consumer's transactions. Most of the transactions completed by the small businesses in the current markets are done through credit and debit cards. This system causes most of the profits to be seized by the payment processing companies.

2) Solution

Team QUUS proudly presents an ultimate solution to the above four problems in the form of a blockchain based cryptocurrency "SangGaToken" (hereafter SGT), a token economy system based upon SGT, and "SangGaTalk" (hereafter SGTalk) application running on top of location based marketing platform.

(1) SangGaToken (SGT)

With blockchain based cryptocurrencies, a direct transaction between a consumer and business owners without the aid of credit card companies or other payment processing companies becomes possible. The fees that were paid for third-party payment processing companies can be saved, which then can be used for lowering prices of products and services or for providing a wide range of benefits to the customers. Additionally, business owners will be exposed to a process that is more fast and transparent than that of the previous system. Monopolization of information that may occur in a centralized network is prevented. Lastly, the process of saving the data of transactions within the blockchain network lowers and maintains the low fees while simultaneously securing the identity and privacy of each user.

SGT Project mints SGT (a token of the same blockchain technology mentioned above) and constructs a decentralized commerce ecosystem that is drastically different from the previous centralized monopolistic mobile commerce. SGT acts as a key currency within the SGT ecosystem and can be used not only for both online and offline transactions but also with wire transfer, cryptocurrency exchange trade, staking, and many other actions that will expand token economy.

(2) SGT Economy

SGT Economy will be transparent to all about the process of minting, distribution, and all transaction details. Important matters such as fee policy and methods of operation will be approved by the democratic, decentralized system of decision making.

This is in contrast with the big platforms where policies are changed by a unilateral decision by exploiting one's monopolistic power, fees are raised without any concrete evidence nor suggestion, and one's reluctance to reveal the prime cost and revenue structure.

One of the characteristics of SGT Economy is that the rewards given to consumers are tokens that were paid by business owners in the form of advertisement fees. The certain amount of tokens for advertisement fees are given freely to business owners initially in the form of rewarding the registering of the store on the application. This particular SGT mechanism creates a positive feedback loop within the ecosystem. For business owners, they have the positive effect of retaining their first customers and see the increase in the sale price. For consumers, they have the benefit of using the gifted tokens for purchasing items or services available. Ultimately, business owners do not have to worry about running out of tokens and having to purchase tokens from the cryptocurrency exchange sites for the items and services sold for SGT will ensure that tokens will be constantly earned.

SGT economy contains big data from blockchain, which with AI's analytic skills can be used to produce an accurate performance prediction and high-level marketing information for each individual business. This will be a key factor in the growth of small businesses.

SGT economy is designed so that it can be decentralized quickly and the token's value and circulation can be maintained safely through different system components such as Pool, Node, Staking, and etc.. While the initial design of these components of the system has been designed in SGT Project, these may be subject to change or revision under all user's democratic decision making system.

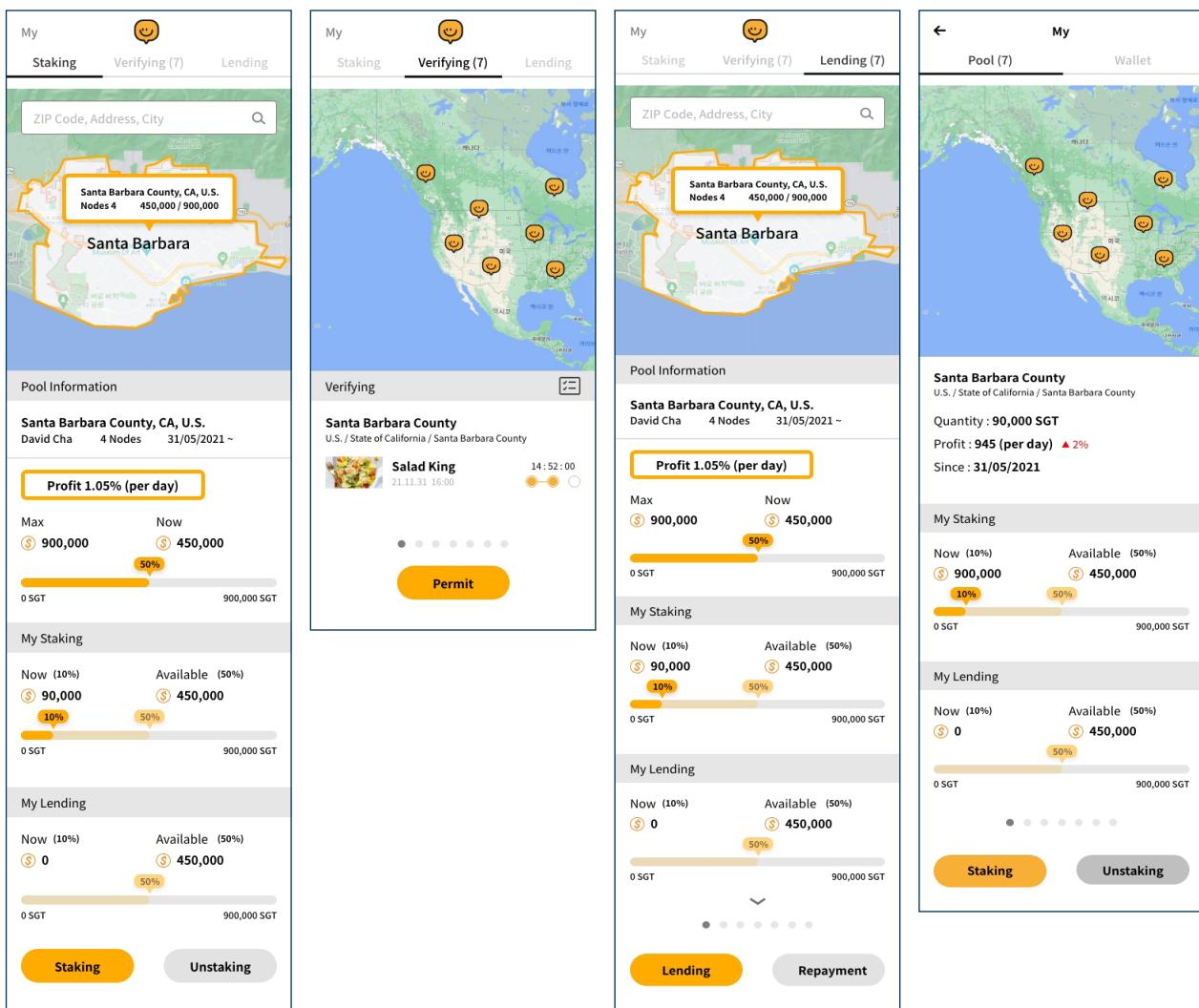
Staking An act of depositing SGT at a certain Pool. The Pool's limit of staking is decided upon a corresponding city's population times ten. The minimum amount of tokens required for staking is one SGT. Each Node's share of a certain Pool is calculated by a node's staking amount over the amount of Pool's limit of staking, which is represented as percentage (%).

Pool Basic units divided into each region for the purpose of staking.
There is a one pool created per city. The amount available for staking in the pool is directly proportional to the population of the city. Nodes who have staked at the pool receives SGT as a reward for contributing in expanding the token economy.

Node An account that holds a share of the pool through staking.
Nodes receive SGT as a reward for contributing in expanding the token economy.

Node Manager A user who owns a Node

Pool Manager A person representing a pool; one of the node managers of the pool is elected to take this spot.
Pool manager has the responsibility and privilege of settling disputes and facilitating communications between Node Managers. The candidates for this position is determined by the top three node managers with the highest percentage of their share of the pool. If there is a conflict in which there are two candidates with the same percentage of their share of the pool, the node with the fastest creation date takes precedence. Election for Pool Manager automatically begins once more than 51% of the pool is staked. In the event where the staking percentage is below 51%, the election is immediately cancelled and all the previously casted votes are considered null. The election is finished when a candidate earns more than 51% of the votes of the castors and the said candidate is instantly elected as Pool Manager. The elected Pool Manager's term is a year starting from the day after the election. If there is a situation in which a Node who fits all the above criteria does not appear, the Node Manager with the most staking share is elected as temporary Pool Manager. The term of the temporary Pool manager ends as soon as a Pool Manager is officially elected through voting.



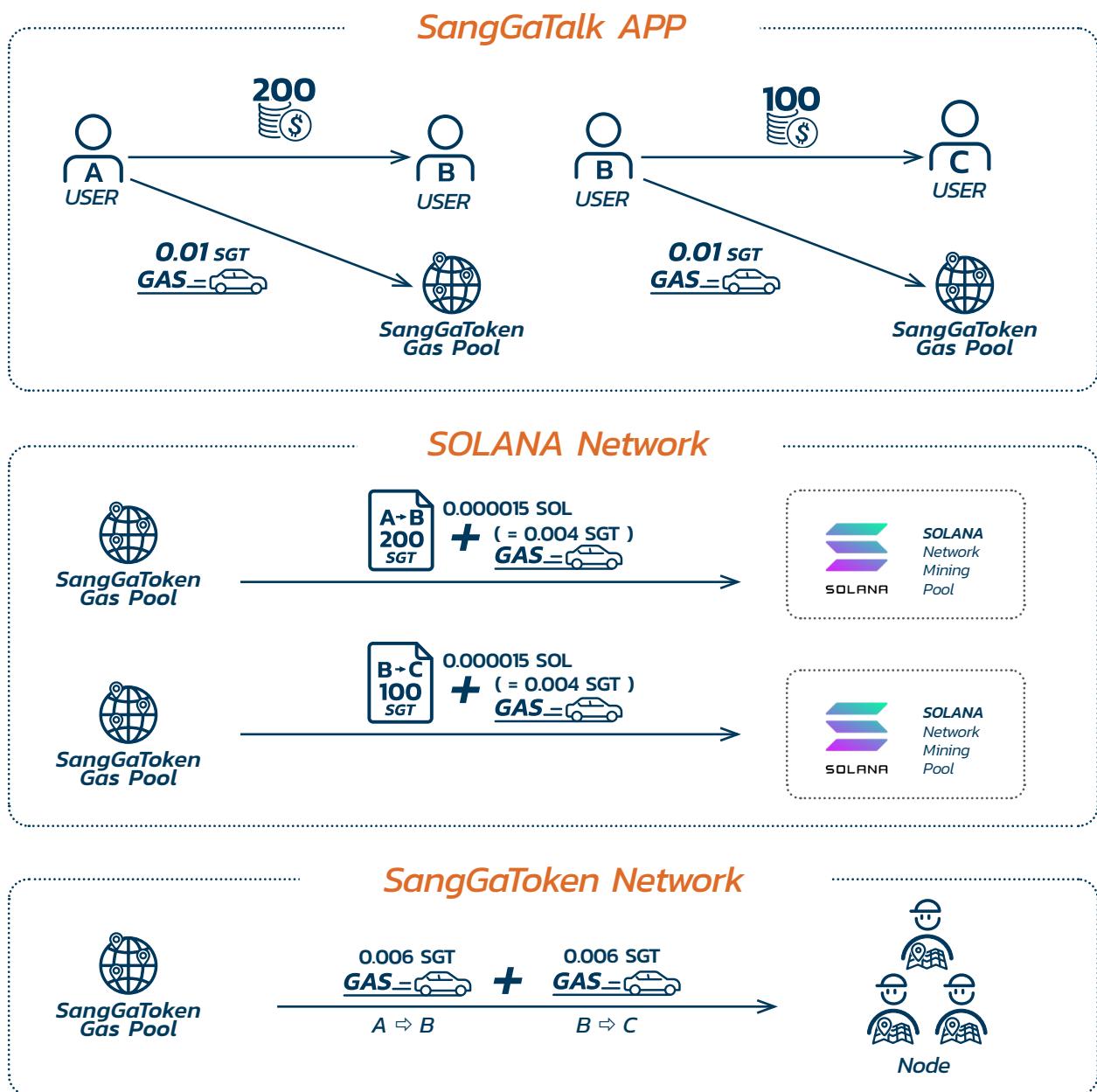
[Figure 1] Staking and Lending Site

Staking Reward	SGT given to Nodes as a reward for staking. 60% of the transaction fees that occur within the pool's corresponding city are distributed to all the nodes; the percentage of node's share of the pool is used to calculate how much SGT the node would receive.
Verify	A term for the process of authenticating the information related to registration of new stores within the pool corresponding to the city, revision of store information, registration of products and services, and many more. They are authenticating information for the purpose of checking if the information may pose danger to the token ecosystem.
Verifier	A title automatically bestowed to a node manager who has at least 1 % of the share of the total staking in a pool. A node manager with the title of verifier has the power to verify in order to eliminate potential dangers to the token ecosystem.
Verification Reward	SGTs given to a verifier as a reward for the work put in verification. The tokens that are distributed are from the fees paid by the store owner for either the registration or revision of the information. The share of the fee for each verifier is reflective of the share of work done by the verifiers.
Verification	A penalty given to a verifier who has violated Subjects of Verification. If a verifier accumulates more than 3 verification error penalties, regardless from which pool, the authority to verify is revoked and the stakings of all pools are automatically cancelled.
Error Penalty	
Subjects of Verification	A term for a list of items to consider when verifying and methods of verification.
Verification Support Team	This list is included in the "Verification Reference Table" which is written by the Verification Support Team. Verification Reference Table is managed by the verification support team and can be subject to change or edification by the support team's proposals.
Verification Period	A term referring to a 24 hour period in which any information registered on store needs to be verified by three verifiers. In the case where the information fails to be verified by three different verifiers, the verification work is considered null and the verification process is passed to the Verification Support Team.
Verification Organization	An organization dedicated to supporting any works related to verification works.
Support Team	The members will consist of volunteers of the project. The decision of hiring the persons or groups that have submitted their application will be done through the votes of the current members of the verification support team.
Penalty Immunity	An immunity from the penalty given by a member of the verification support team when they cancel a verification penalty.
Transaction Fee	A fee collected for the cost of operation of token economy system, 0.01 SGT is collected per transaction.

There are three different types of transactions used within the SGT ecosystem, catalogued by the purpose of trading the tokens (not including any transactions occurring in exchange): a transaction for the purpose of paying for products and/or services, a remittance transaction for the purpose of transferring assets, a staking or lending transaction for the purpose of investments.

In the above three methods of transactions, it requires an action of sending a token from one wallet to another. At this instance, a fee of 0.01SGT is collected from the wallet that is sending the tokens. The collected fees are then used for the following purposes.

- ① A gas fee for recording the transaction details in Solana blockchain (estimated 0.003 SGT, 30%)
- ② A maintenance fee for operating SGTalk system (estimated 0.001 SGT, 10%)
- ③ A reward fee for staking (estimated 0.006 SGT, 60%)



[Figure 2] Transaction Fee Components

(3) SGTalk Application

SGTalk application is a commerce platform dedicated for business owners and consumers who use SGT. The application converges the small business channels that were previously distributed across different platforms. In this application, business owners can easily and quickly post information about the store and advertise through posting on bulletin boards. Any consumers who voluntarily approach these within the application are rewarded with SGT. For the consumers, the application exposes nearby stores based on the distance from the current location, to which they have the power to pick and choose. Their actions of willingly approaching a store is rewarded through SGT by the business owners, which can be used both online and offline as a cash. The tokens rewarded is an asset that can be used for other transactions such as remittance payment, staking, trading at exchange, and many others.

SGTalk application is designed so that the system does not foster any mutual competition among business owners nor will the system tend to favor or discriminate a certain owner or their business. This is one of goals in which SGT Project most values. There is no way for a certain business owner to pay an extra fee to usurp location based exposure so that their store will be more exposed regardless of distance. As such, all stores will be displayed to consumers fairly based on the distance.

SGTalk application offers a safe online commerce platform under a decentralized system that is free from a centralized regulation and monopolistic agency. Here, both consumers and business owners will have the guarantee of the freedom of all types of business activities.

SGTalk platform will become a symbiotic network where anyone can freely register their business regardless of boundary of countries, sectors, or qualifications and connect consumers all over the world.

(4) Application's Main Functions

- Store** A feed that displays store information through text, photos, videos, etc. Business owners can introduce the information about their business at Store. The store exposure is arranged by the distance of the user's current location to eliminate the cost of marketing competition arising from the need of top exposure. Information posted on "Store" can always be updated. Customers who have pressed "Favorite" at "Store" can be rewarded by the owner with SGT.
- Push Notification** A temporary banner for events or announcements that needs to be informed. Customers who have checked the notification can be rewarded by the owner with SGT.
- Coupon** A downloadable coupon that provides benefits such as a gift or discount.
- Stamp** A benefit can be awarded to users for collecting a certain amount of stamps per agreement.
- Item** A product or service sold by the store that is purchasable with SGT.
- Review** A place for user reviews and ratings about the store.
- Token Wallet** A place where SGT is kept for purchasing product/service, withdrawal, or remittance. The transaction details are stored within blockchain.
- Manage** A management function where a user can change settings and manage store activities. Business owners can oversee store information, coupons, stamps, push notification, and items while collecting new marketing strategies by analyzing customer activities through settings and Manage.
- QR Scanner** A function that automatically redeems coupons, collects stamps, and completes other functions by scanning the QR code.

3) Application User Scenario

SGTalk Application provides an experience of commerce, which business owners find to be easy and convenient, and consumers find to be practical and enjoyable. The application is designed so that owners of different types of small businesses can experience a different marketing effect through basic tools such as coupon creator and stamp collector. All store information and advertisements are provided in the form of feed, which is the type of user interface that is most familiar and intuitive for SNS users. Business owners can create their advertisements and consistently update their store information with ease through this feed feature. Within the promotional feed, business owners can also post coupons and stamps alongside. Unlike the conventional methods of paper coupons or SMS coupons, these features distinguish between a customer who purchased from a potential customer who shows interest. As such, business owners can freely decide and manage what benefits each customer may receive.

Consumers receive different benefits through a reward system. SGTalk application welcomes all types of small businesses unlike the other platforms which welcomes a particular type of sector of business such as restaurants or hospitality. In other words, consumers can complete their shopping list by only using SGTalk application instead of having to search through multiple websites and applications. Also, consumers are rewarded SGTs through the consumer reward system so that the searching of store's information and advertisements are rewarding and productive activities. SGTalk reward system offers a great advertising effectiveness by transferring total advertising fees to consumers, benefiting both parties of consumers and business owners.

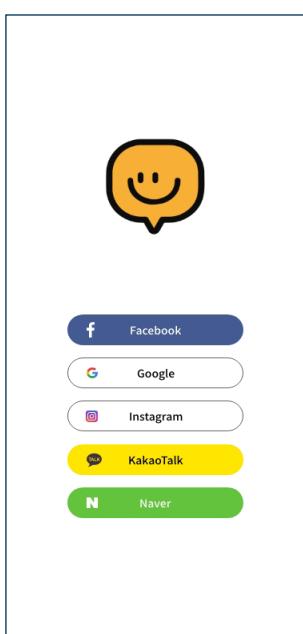
Scenario 1 – Using “Store” Feature

Business owner's perspective

① Business owner M downloads SGTalk application for the purpose of promoting their store. SGT Wallet is created through an SNS account. – Figure 3

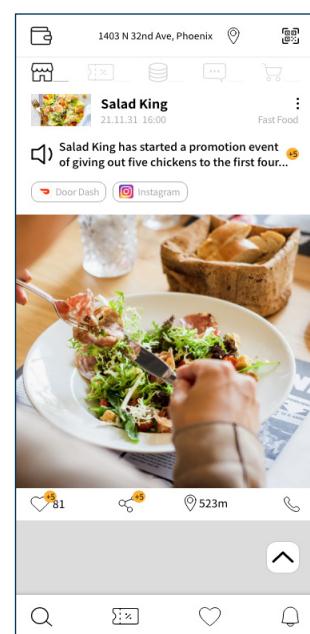
② Business owner M registers the information about their store through the “Store Registration” tab of the menu. At the “Store” page, they can post informations about the store or promotional photos/videos. – Figure 4

③ Registered store is exposed to consumers nearby the entered store location. – Figure 5



[Figure 3] SGTalk App – Log In

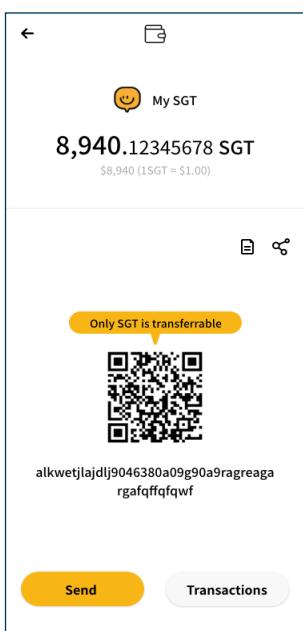
[Figure 4] SGTalk App–Store Registration



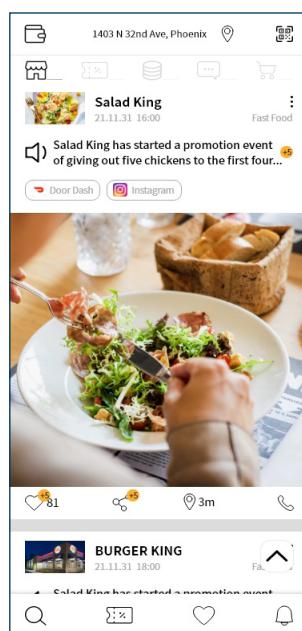
[Figure 5] SGTalk App–Store

Consumer's Perspective

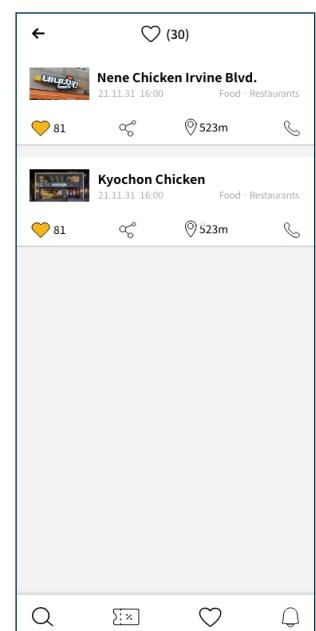
- ① Consumer G opens SGTalk application and checks for nearby store information. Consumer G creates SGT Wallet by using SNS account. _ Figure 6
 - ② Consumer G is exposed to the stores by the distance on their feed once they agree to share their location. _ Figure 7
 - ③ Consumer G clicks on the “ (Favorite)” button on their feed in order to save the store on their “Favorite List”. In order to share a store to a friend, the button “ Share” is used. _ Figure 8



[Figure 6] SGTalk app -
Token Wallet



[Figure 7] SGTalk app - Feed

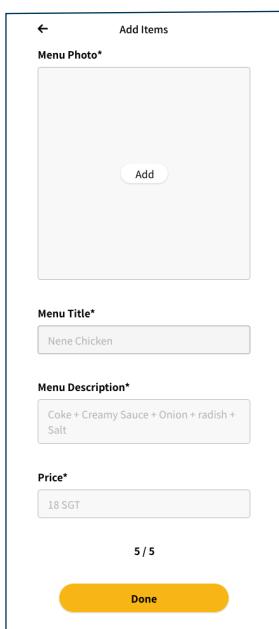


[Figure 8] SGTalk App
- ❤ (Favorite)

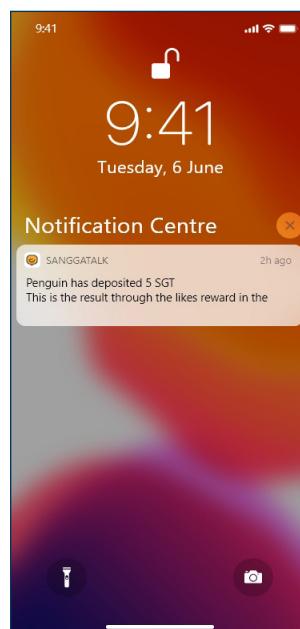
Scenario 2 – Sale and Purchase

Business owner's perspective

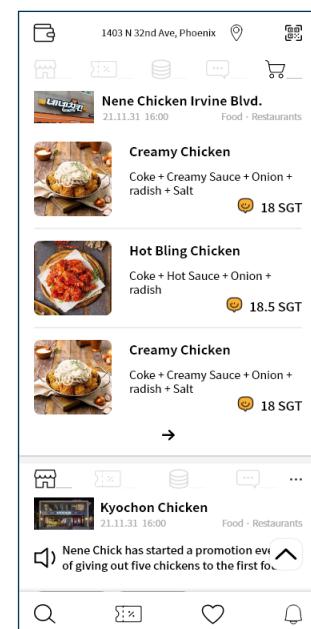
- ① Business owner M registers products or services that they wish to sell. Photos and sale prices can be uploaded. _ Figure 9
- ② Push notification is sent when sale proceeds (SGT) are deposited in Token Wallet. _ Figure 10
- ③ Business owner M provides the purchase products/services. _ Figure 11



[Figure 9] SGTalk App – Item



[Figure 10] SGTalk App – Push



[Figure 11] SGTalk App – products/services

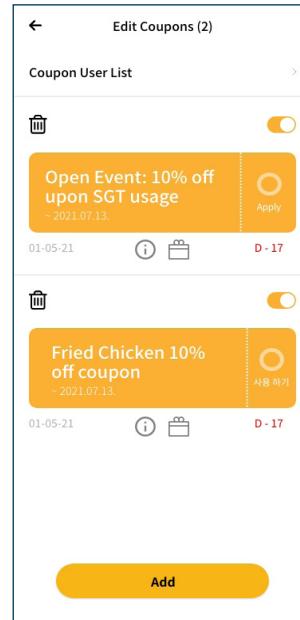
Consumer's Perspective

- ① Consumer G searches up for product name or business name on the search bar. _ Figure 12
- ② They purchase desired products or services from the searched store. Payments are completed with SGT. _ Figure 13
- ③ The ordered products or services are delivered to consumers in the form of request made when ordering (In Store, Pick Up, Take Out, Deliver, etc.).

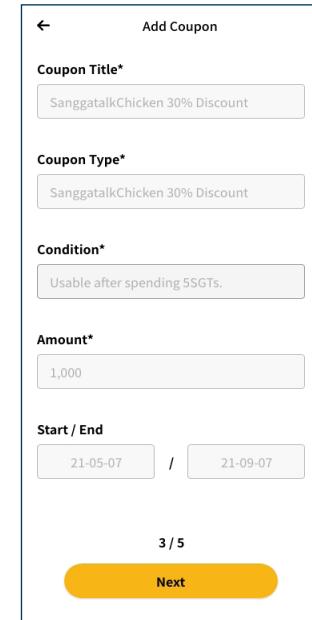
Scenario 3 - Coupon

Business owner's perspective

- ① Business owner M registers coupons to their store. Business owner M uploads necessary information such as coupon information, quantity, expiry date, and usage to consumers. Once this step is done, consumers who receive coupons can redeem it both online and offline at the appropriate store. _ Figure 14, 15
- ② Digitized coupons can save the additional fees of printing and distributing. The data of coupon usages allow for easier customer relationship management.



[Figure 14] SGTalk App
- Coupon registration



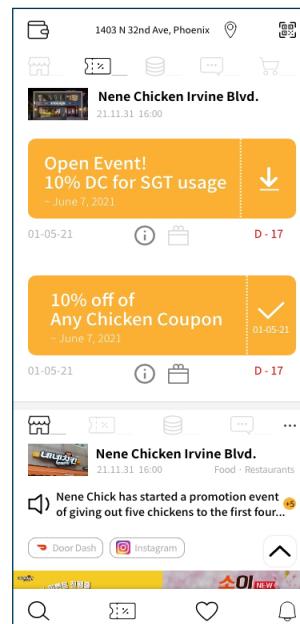
[Figure 15] SGTalk App
- Coupon issuance

Consumer's Perspective

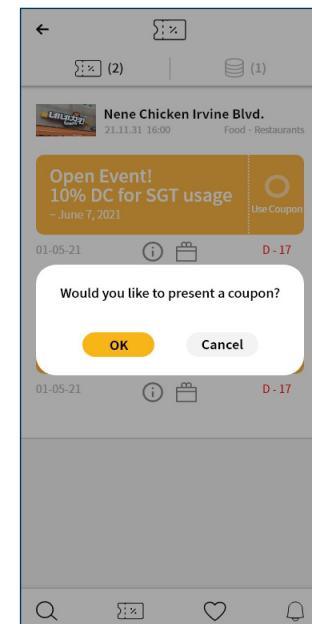
- ① Consumer G can easily redeem a coupon for the nearby store. Consumer G can redeem a coupon both online and offline with a single touch anytime. _ Figure 16
- ② Consumer G can gift coupons to a friend through the "Gift" feature. _ Figure 17
- ③ Digitized coupons has no inherent danger of loss and easy for storage unlike paper coupons. _ Figure 18



[Figure 18] A Wallet of Coupons & Stamps



[Figure 16] SGTalk App
- Coupon download



[Figure 17] SGTalk App
- Gift coupons

Scenario 4 – Collecting Stamp & Paper Stamp

Business owner's perspective

① Business owner M can set a feature of reward stamps for their store. Business owner M can set up a detailed system of rewarding through accumulated stamps. Printed paper stamps can be delivered to the store after requesting printed stamps at collectable stamp printing request website several days in advance. Figure 19

② Paper stamps can be distributed to customers who visited the store or can be sent with the purchased products.

Figure 20

③ Data of stamp collections and of stamp redeem history allows for easier customer relationship management.

④ Paper stamps relieves staff members from the job of explaining to customers on how to use the stamps.



[Figure 19] SGTalk App – Stamps



[Figure 20] Collectable Stamps

Consumer's Perspective

① Consumer G simply scans QR code in order to automatically store the stamps. The collected stamps can be used by redeeming it at the physical store or by redeeming it through the app.

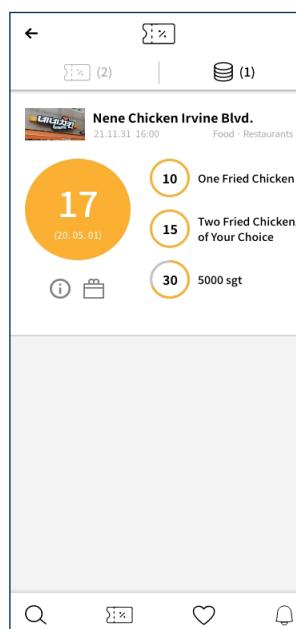
Figure 21

② Consumer G can also give either all or partial of the collected stamps to friends. Figure 22

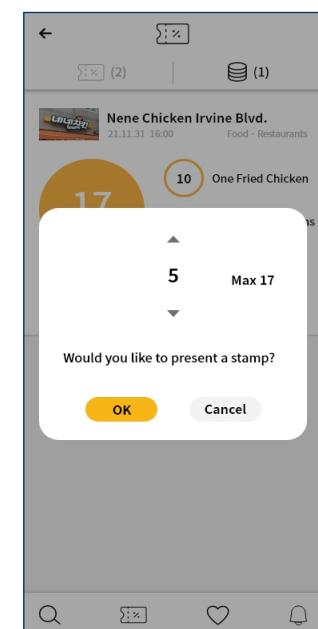
③ There is no need for storing the paper stamps after scanning the QR code.



[Figure 23] SGTalk App – Collected Paper Cards of Stamps



[Figure 21] SGTalk App – Collect Stamps

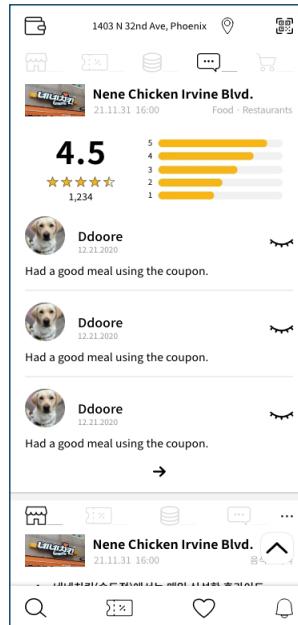


[Figure 22] SGTalk App – Gift stamp

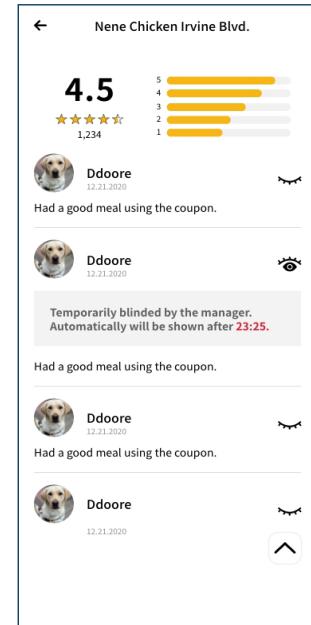
Scenario 5 – Review

Business owner's perspective

- ① Business owner M tries to improve their service through customer's feedbacks. _Figure 24
- ② Business owner M has the ability to temporarily obscure a review if they deem it to be false and might hurt the business or be written with malicious intent. _Figure 25



[Figure 24] SGTalk App – Review



[Figure 25] SGTalk App – Block reviews

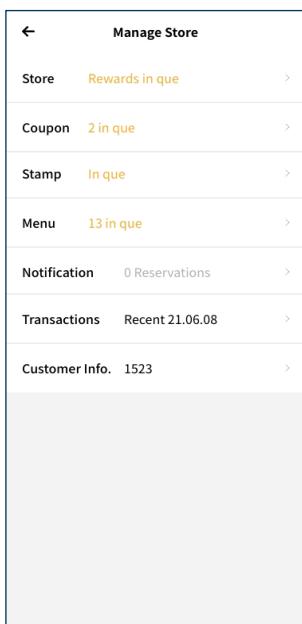
Consumer's Perspective

- ① Consumer G can express their satisfaction through a star rating system. They can additionally write reviews through comments and pictures.

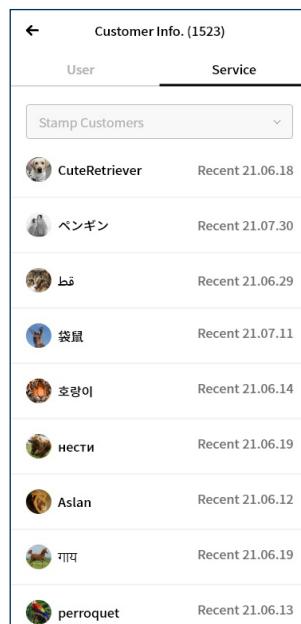
Scenario 6 – Consumer Relationship Management

Business owner's perspective

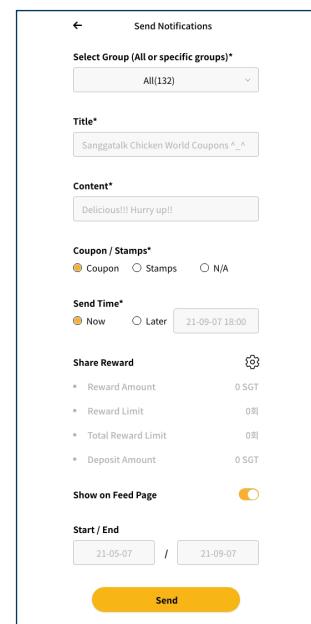
- ① Business owner M can check how many people have shared their store and how popular stamps/coupons were among their customers. Figure 27
- ② “Manage” page is not only available through application but also through the internet. The multiple data presented at this page can be used for establishing marketing strategy. Figure 28
- ③ Business owner M can use the “Push Notification” feature to create new events and send it to consumers. Figure 29



[Figure 27] SGTalk App – Management



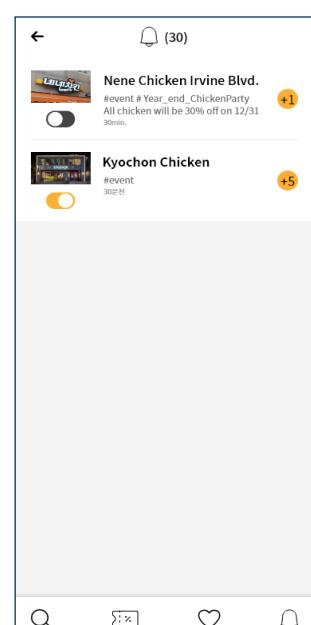
[Figure 28] SGTalk App – Customer data



[Figure 29] SGTalk App – Push Notification

Consumer's Perspective

- ① Consumer G will receive a push notification from a store that was saved to their favorite list. An event that is tailored to Consumer G's taste is included within the notification. Figure 30
- ② Consumer G has the choice to reject push notifications from certain stores. Figure 30



[Figure 30] SGTalk App – Notification Setting

Scenario 7 – Redeeming Token Coupons

Business owner's perspective

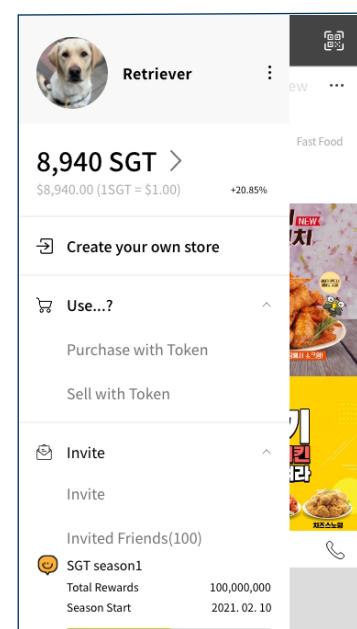
- ① Business owner M can request for printed token coupons through the coupon request website. Once the request is processed, business owner M will be delivered the printed token coupons for the purpose of distribution to customers. _Figure 31
- ② Token coupons can be distributed directly to consumers who have visited the store or can be gifted alongside the purchased products.
- ③ Tokens that are distributed through token coupons are from a pool assigned for partner programs and provided with no charge.
- ④ Token coupons relieve staff members from having to explain how to redeem the tokens.



[Figure 31] Token Coupon

Consumer's Perspective

- ① Consumer G can receive SGTs once they scan the QR code of the token coupon and put the store code in. The received tokens can be used for purchase of products or services by visiting the store or through SGTalk application. _Figure 32
- ② Consumer G can still gift token coupons to their friend after redeeming tokens from them.

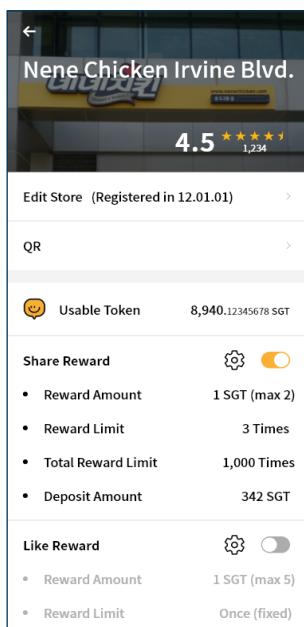


[Figure 32] SGTalk app
- Token Wallet

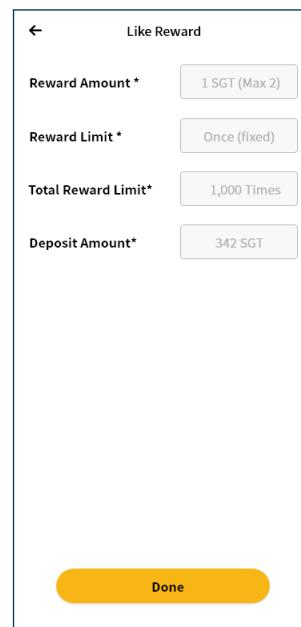
Scenario 8 – Store Registration Reward Usage

Business owner's perspective

- ① Business owner M can reward a customer who has done an activity that is beneficial to the business with the tokens received from Regist R (store registration reward). For example, if Consumer G was to press “ (Favorite)”, share the store, check the notification that was sent, and others, Business owner M can reward Consumer G with the tokens received from Regist R. Tokens that were received from Regist R (store registration reward) or M invite R (invitee registers store reward) is limited so that it can be only used for rewarding customers._Figure 33, 34, 35
- ② Business owner M is entitled to receiving a Private Reward (business owner's private reward) twice the amount of tokens that were distributed in the way described above. Tokens that are received as Private Reward have no limitation on its usage.

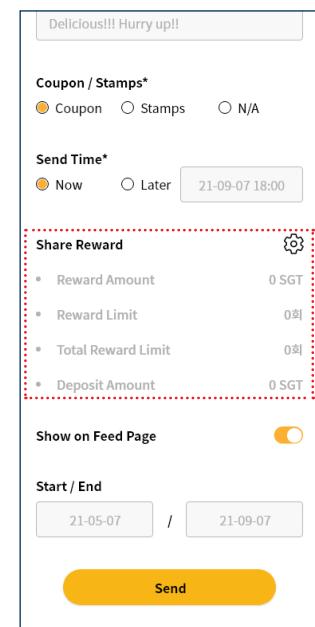


[Figure 33] SGTalk app
– Reward settings



The screenshot shows the "Like Reward" settings screen. It includes fields for "Reward Amount" (1 SGT (Max 2)), "Reward Limit" (Once (fixed)), "Total Reward Limit" (1,000 Times), and "Deposit Amount" (342 SGT). A yellow "Done" button is at the bottom.

[Figure 34] SGTalk app
– “ Favorite”
Reward settings

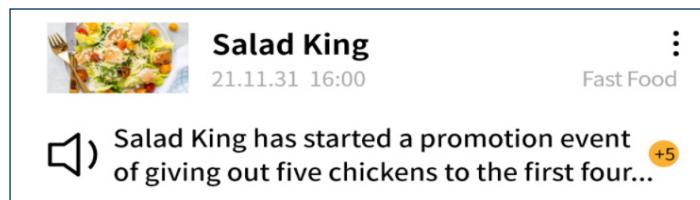


The screenshot shows the "Share Reward" section of the notifications settings. It lists four items: Reward Amount (0 SGT), Reward Limit (0 SGT), Total Reward Limit (0 SGT), and Deposit Amount (0 SGT). Other settings include "Coupon / Stamps" (Coupon selected), "Send Time" (Now selected), "Show on Feed Page" (on), and "Start / End" dates (21-05-07 / 21-09-07). A yellow "Send" button is at the bottom.

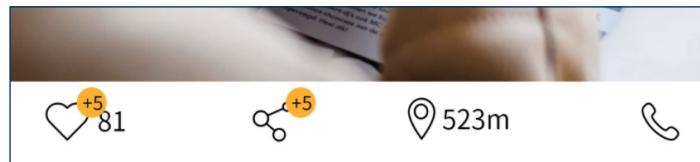
[Figure 35] SGTalk app
– Notifications
reward settings

Consumer's Perspective

- ① Consumer G can receive rewards for actions such as saving store to "♥ (Favorite)", clicking on "🔗 Share", checking "🔔 Notifications", and others. Figure 36, 37
- ② Tokens received for the reward of these actions can be freely used for purchase of products or service, trading cryptos, staking, or others.



[Figure 36] SGTalk app - Token reward (🔔 Notifications)



[Figure 37] SGTalk app - Token reward ("♥ Favorite", "🔗 Share")

Scenario 9 – Node Manager's Token Coupon

Node manager's Perspective

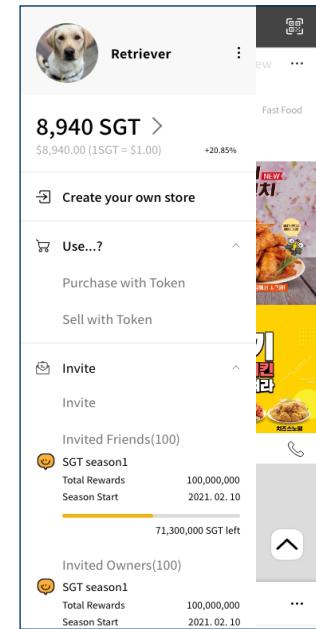
- ① Node manager N can request for Node Manager's Token Coupon for the purpose of distribution. Node manager N will be delivered printed token coupons. _ Figure 38
- ② Node Manager's Token Coupons are distributed for free to business owners and consumers within the node's pool.
- ③ Node Manager N can be rewarded tokens for the same amount that they has distributed.



[Figure 38] Node Manager's Token Coupon

Consumer, business owner's perspective

- ① Consumer G and Business owner M can scan the QR code and insert the Node Manager code to immediately receive the appropriate tokens. The tokens received can be freely used for purchase of products or services, trading crypto, staking and many others. _ Figure 39
- ② Consumer G can gift the token coupons to their friend even after redeeming the coupon.



[Figure 39] Token accumulate

3. SGT Minting & Distribution

1) SGT Minting

21 billion SGTs (SangGaToken) were minted on Solana Blockchain Network.

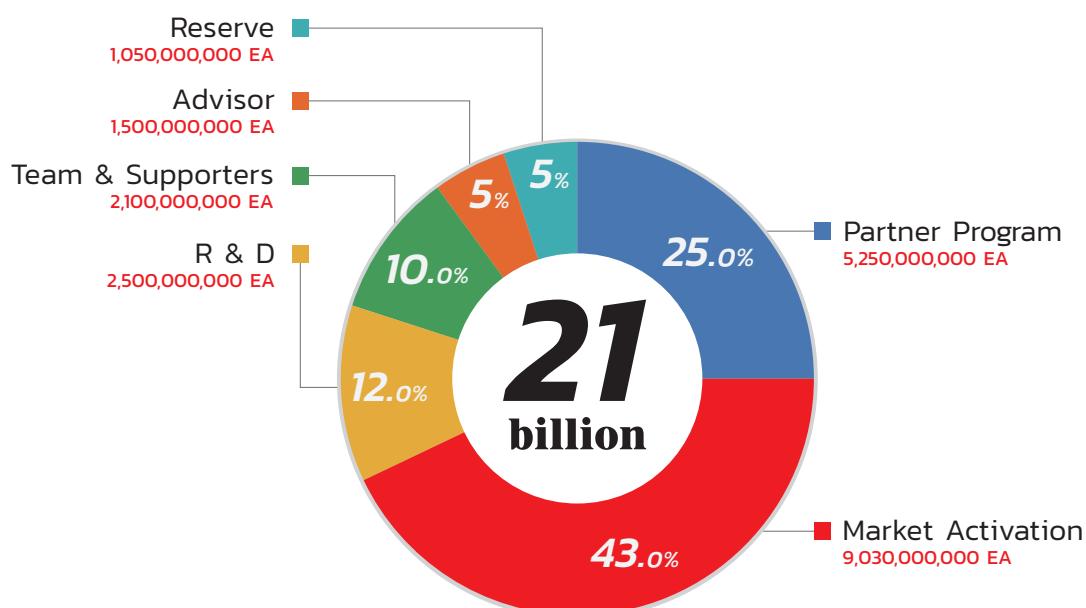
The number 21 billion is the highest fixed amount of tokens minted and additional tokens cannot be minted.

The source for this claim can be checked through this link: <https://solscan.io/>

• Token Name	SangGaToken (SGT)
• Minting Address	4KAFF8ZpNCn1SWLZFo5tbeZsKpVemsobbVZdERWxRvd2
• Total Minted Amount	21,000,000,000 SGT
• Home Page	https://sanggatoken.io
• Account of the Minting	DuhmSSKFmg7X29JgvKFxaR6bUfo2dtronFz7H956m15

2) SGT Distribution

Any person who has contributed in the creation and maintenance of the SGT ecosystem can be distributed SGTs as a reward. The total amount of tokens minted are 21 billion, of which: 25% is distributed to partners who activate the market and maintain the ecosystem, 43% is distributed to business owners, consumers, and staking nodes for market activation, 12% is distributed to developers who are in charge of developing and operating SGTalk platform, 10% to supporter groups who have been validating SGTalk business model both online and offline since July of 2019 and any other future supporter groups who will be active worldwide, 5% to advisers who contribute to SGT ecosystem, and finally, remaining 5% is reserved.



[Illustration 40] Total SGT Minted & Distribution

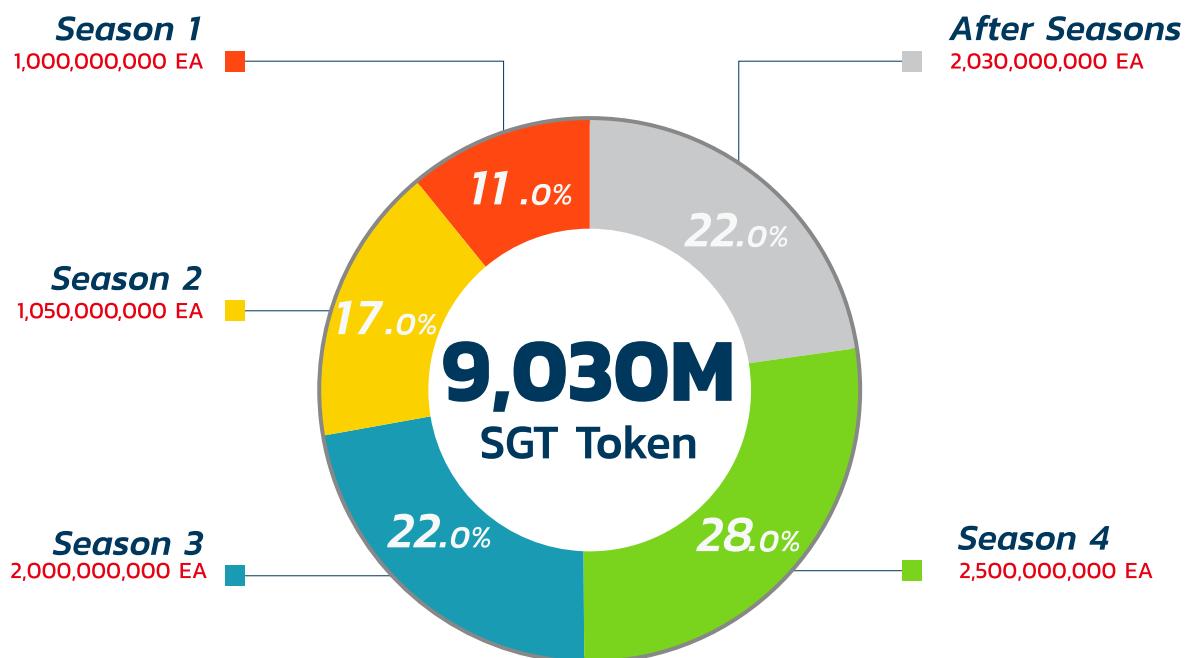
3) Mandatory Token Holding Period

Tokens that were distributed to SGT Project insiders are subject to a mandatory holding period in order to steady the value of SGTs. The details of the regulation is listed below and are not applicable to regular consumers and business owners. However, the transactions or transfer of tokens are possible during mandatory holding period as long as it is between SGT project insiders and the details of these dealings are disclosed. The tokens that are used for transactions or transferred will still be subject under the rules of mandatory holding period.

- **SGT distributed to advisors** 12 / 31/ 2024
- **SGT distributed to R&D team** 1 year after the official release date of global version of SGT application
- **SGT distributed to teams & supporters** 1 year after the first staking
- **SGT distributed to partners** 1 year after the official release date of global version of SGT application

4) Market Activation

The following is the market activation distribution policy of 9,030,000,000 SGTs dedicated to business owners, consumers, and staking nodes.



[Illustration 41] Market activation distribution policy

(1) Reward Types

- ① **Join R** Reward for becoming part of the member
- ② **Invite R** Reward for inviting another member
- ③ **Register R** Reward for registering a store (promotional usage only)
- ④ **M invite R** Reward for inviting another member who registers a store (promotional usage only)
- ⑤ **Private R** Reward given to business owners depending on the result of a promotion
Tokens received from Register R and M invite R are distributed to consumers for the promotion of their store. Business owners who participate in these activities are rewarded twice the amount of tokens that they distributed as Private R. Tokens received as Private R can be used for any purposes.
- ⑥ **Pool R** Pool Reward: Reward given to nodes who are staking
Nodes who are staking at the same pool as business owners who receive Private R will receive a same amount of tokens. The amount each nodes receive are dependent on one's share of the pool.
- ⑦ **Verify R** Reward for verification works

(2) Distribution Methods

Tokens are allocated by season, with the exhaustion of tokens allocated for each season marking the end.

Tokens are distributed in order of season 1, season 2, season 3, season 4, and after season.

A new season automatically starts when the tokens reserved for a season are exhausted.

The amount allocated to a pool is different per season.

division			User R		Merchant R			Pool R
Total	100%	9,030,000,000	Join R	Invite R	regist R	M invite R	private R	
Season 1	11%	1,000,000,000	10	5	500	500	x 2	= private R
Season 2	17%	1,500,000,000	6	3	500	500	x 1.5	
Season 3	22%	2,000,000,000	4	2	500	500	x 1.0	
Season 4	28%	2,500,000,000	2	1	500	500	x 0.5	
After Season	22%	2,030,000,000	1	0.5	500	500	0	

- join R : Membership Reward
- invite R : Membership Invite Reward
- regist R : Store Registration Reward
- M regist R : Business Owner Invite Reward
- private R : Business Owner's Private Reward
- Pool R : Pool Reward

The following is an example of token distribution of season 1.

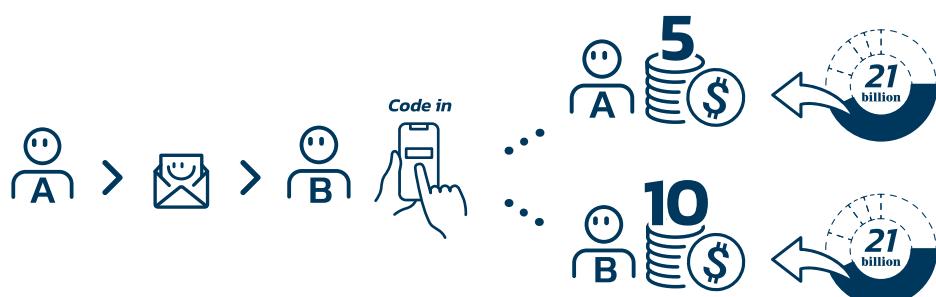
- join R _ Membership Reward

Consumer A receives 10 SGTs as a reward for downloading the SGTalk application creating a wallet for the first time.



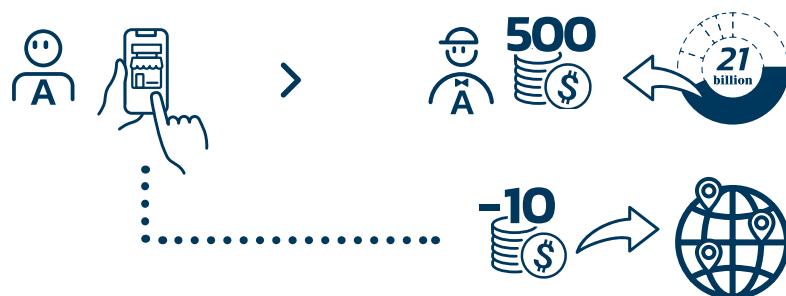
- invite R _ Membership Invite Reward

Consumer B receives an invitation from Consumer A and inserts invitation code when downloading the SGTalk application. At this instance, Consumer A receives 50% of what Consumer B receives for join R, which is 5 SGTs. Unlike join R, there is no limit to the amount of times one can receive this reward.



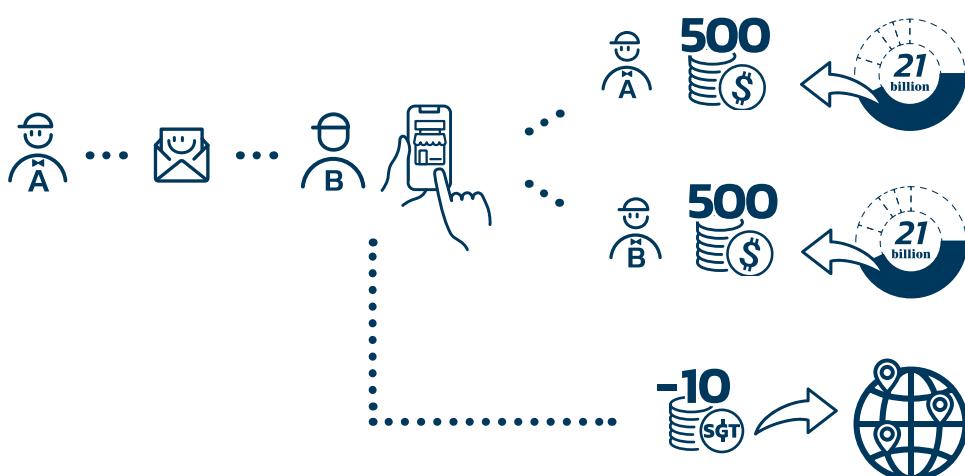
- **regist R _ Store Registration Reward**

When Consumer A registers their store at the SGTalk application, Consumer A becomes Business Owner A for meeting the requirements of business owner. Business Owner A receives 500 SGTs as a reward for registering their store, which is available only for the first time. There is a fee of 10 SGTs for verifying store registration. This fee can be paid with 10 SGTs received from the join R. Verification fee is distributed to verifiers automatically. (Reference 3.3.3. Pool, Node, Staking, Verifier, etc.)



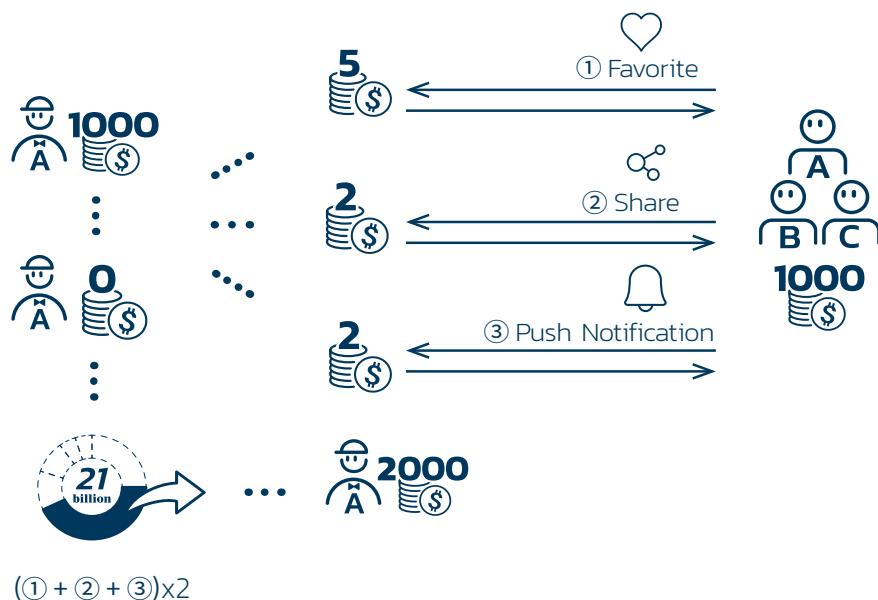
- **M invite R _ Business Owner Invite Reward**

When Consumer B who has been invited by Business Owner A registers their store and becomes Business Owner B, Business Owner A receives an additional 500 SGTs as a reward. Unlike register R, there is no limit to the amount of times one can receive this reward.



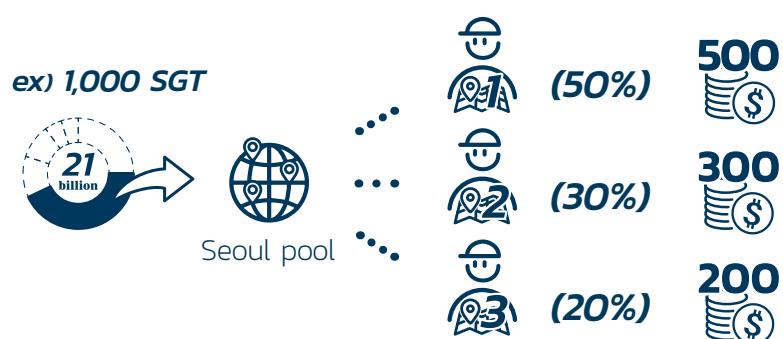
- **private R _ Business Owner's Private Reward**

Business Owner A receives twice the amount of tokens that were distributed to consumers for promotion.
The tokens received here is private R and it can be used for any purposes.



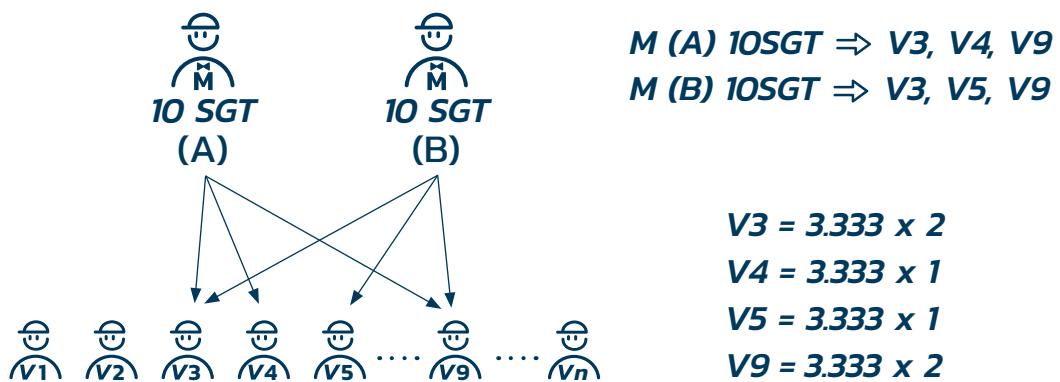
- **Pool R _ Pool Reward**

A reward given to nodes who are staking at a certain pool. For example, if Business Owner A and Business Owner B receive private R under New York pool, nodes who have staked on New York Pool will receive the same amount of tokens. The share of the Pool Reward is distributed based on node's share of staking.



- **Verifying R _ Verification Reward**

Verifiers are rewarded for their verification work with a verification fee that is paid by business owners for their store registration. The verifiers are only able to verify stores that are under the pool which they staked in and verification fee is always split into three verifiers. For example, if there are 10 verifiers within New York Pool (named V1 through V10) and V3, V4, and V9 have verified a store, each verifier will receive 3.333 SGTs. If V3 was to verify another store with V2 and V8, the three verifiers will receive 3.333 SGTs each. In the end, V3 would receive 6.666 SGTs while V3, V4, V8, and V9 would receive 3.333 SGT each.



5) SGT Lending

SGT Lending is a policy for nodes who are interested in staking tokens more than they currently possess. SGT Lending system uses the unallocated SGTs from the entire token supply and lends them out to nodes under the agreement of collecting interests.

It is in the best interest for the SGT ecosystem's expansion to increase the number of nodes who voluntarily stake their tokens. Influencers (Network operator, Youtuber, Instagram, blogger, Twitter, celebrity, etc.) who greatly influence the expansion of the ecosystem may accelerate the growth of the ecosystem by participating in staking. Yet these influencers are unlikely to recognize the benefits of the token ecosystem from the beginning and invest huge amounts of tokens for staking. Additionally, it may be difficult to obtain enough tokens for staking in the early stages of the ecosystem where insufficient amounts of tokens are distributed to general consumers and business owners. As such, SGT Lending policy is implemented to preemptively solve these issues and expand the ecosystem quickly.

- **Qualification for lending request** node that have agreed to the rules of lending policy operation
- **Minimum limit** 10,000 SGT
- **Maximum limit** up to the point where node's own fund can cover for the daily lending interest for the next 30 days. The maximum lending limit is up to 10,000,000 SGTs for a user and the lending limit within a pool is based on the amount of tokens available for staking.
- **Lending Interest (per day)** Pool's Basic Revenue Rate x 110% (Lending interest is collected under General Revenue and redistributed to nodes)
- **Lending Period** 1 year (annual auto-renewal, Early Repayment Possible, No Early Repayment Fee)
- **Lending Interest and Automatic Repayment** Lending Interest Fee and Repayment to Lending Pool is automatically repaid from Total Revenue every day (paid in the order of interest ⇒ repayment; if Total Revenue is not sufficient for lending interest, self fund is used to pay automatically). All the SGTs collected for Automatic Repayment from nodes are directly deposited to the Lending Pool. Automatic Repayment is stopped when the balance of lending reaches zero.
- **Forced Liquidation** In the case where Lending Pool is below 100 million SGTs, up to 100 million SGTs can be forcibly liquidated without prior warning. The order of liquidation is by the lending with lowest interest rate, and by earlier date if the lending rate is same. This will apply regardless of loan terms.

• Lending Pool	A wallet for storing funds for lending. Initially, 17 billion SGTs are provided. Once per day, the pool returns the allocated SGTs from each sectors so that all sectors maintain their token liquidity above 100 million SGTs (one thousand for reserve sector), not exceeding the initial allocated amount.
• Total Revenue	Verification Reward Revenue + Basic Revenue + General Revenue
• Verification Reward Revenue	Reward for nodes who have completed verification work.
• Basic Revenue	sum of all revenues collected from a pool which is distributed to nodes according to their share of the staking; excluding verification reward revenue
• General Revenue	sum of all revenues collected from a nation which is distributed to nodes according to their total share of staking of the country; combination of each pool's unallocated basic revenue and lending interests
• Unallocated Basic Revenue	A basic revenue that isn't distributed due to the fact that the staking of the pool has not reached the staking limit. The unallocated basic revenue tokens are summed up per nation and redistributed under the category of general revenue to nodes according to their share of staking per country.
• Lending Interest Revenue	All collected lending interest of nodes who are lending. The lending interest revenues are summed up per nation and redistributed under the category of general revenue to nodes according to their share of staking per country

- Nodes with a balance in lending have all of their revenue (with the exception of verification reward revenue) collected for lending interest and lending repayment.
- The above income settlement and dividend is carried out once a day.

Category	Items	Rate Calculation
Verification Reward Revenue	(1) Reward for verifying information about store	
Basic Revenue	(1) $\text{Transaction Fee} = 0.006 \text{ SGT}$ - 60% of 1 SGT Transaction Fee (2) Pool Reward	$\text{Pool's Basic Revenue Rate} = \frac{\text{Sum of Basic Revenues Pool}}{\text{Staking Limit}} \times 100$
General Revenue	(1) Unallocated Basic Revenue (2) Lending Interest Revenue	$\text{National General Revenue Rate} = \frac{\text{Sum of National General Revenues}}{\text{National Staking Limit}} \times 100$
Total Revenue	(1) Verification Reward Revenue (2) $\text{Total Revenue} = \text{Basic Revenue} + \text{General Revenue}$	$\text{Node's Total Revenue Rate} = \frac{\text{Node's Total Revenue}}{\text{Node's Staking Limit}} \times 100$

[Figure 42] Different Types of Revenue of Staking

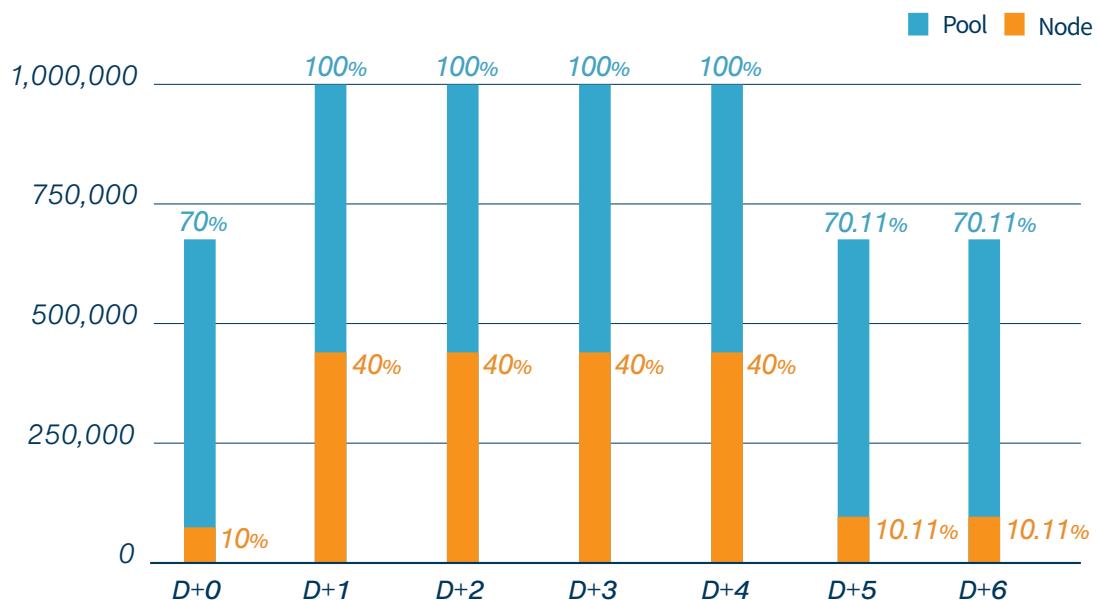
Sectors	Token Quantity	Initial Transfer	After Transfer
Partner Program	5,250,000,000	5,000,000,000	250,000,000
Market Activation	9,030,000,000	8,000,000,000	1,030,000,000
Developers	2,520,000,000	2,000,000,000	520,000,000
Team & Supporters	2,100,000,000	1,000,000,000	1,100,000,000
Advisor	1,050,000,000	0	1,050,000,000
Reserve	1,050,000,000	1,000,000,000	50,000,000
Total	21,000,000,000	17,000,000,000	4,000,000,000

[Figure 43] Initial Token Reserves Distributed to Lending Pool

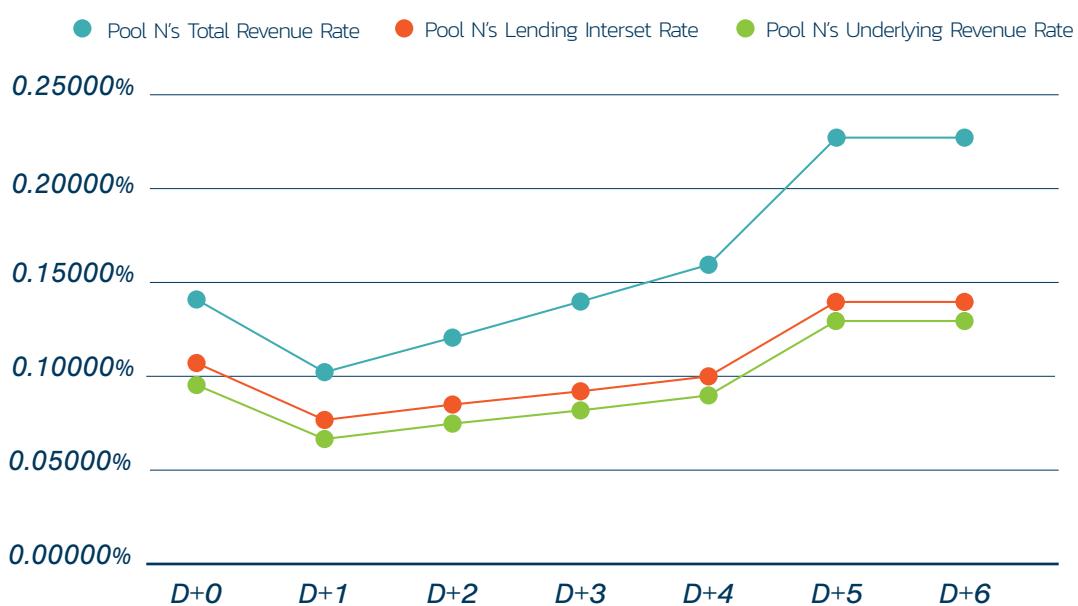
Example

		Formula	D+0	D+1	D+2	D+3	D+4	D+5	D+6
A	Pool N's Staking Limit (10x city's population)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
B	Pool N's Total Staking Balance	pre(B+J+K)	600,000	700,000	1,000,000	999,943	999,801	999,659	700,000
C	Pool N's Share of Staking (%)	B/A	60.00%	70.00%	100.00%	99.99%	99.98%	99.97%	70.00%
D	Node n's Staking Balance	F+G	0	100,000	400,000	399,943	399,801	399,659	100,000
E	Node n's Share of the Pool (%)	D/A	0.00%	10.00%	40.00%	39.99%	39.98%	39.97%	10.00%
F	Node n's Self Funded Staking Balance	pre(F+J-K-L+M)	0	100,000	100,000	100,000	100,000	100,000	100,000
G	Node n's Lending Balance	pre(G+L-M-W)	-	-	300,000	299,943	299,801	299,659	(0)
H	Node n's Profit Balance	pre(H+X)	0	0	110	110	110	110	252
I	Pool N's Amount Able for Additional Staking	A-B	400,000	300,000	0	57	199	341	300,000
J	Node n's Additional Staking Amount		100,000	300,000	0	0	0	0	0
K	Node n's Unstaking Amount		0	0	0	0	0	299,659	0
L	Node n's Additional Lending Amount		0	300,000	0	0	0	0	0
M	Node n's Additional Lending Repayment		0	0	0	0	0	299,659	0
N	Pool N's Underlying Revenue	P+Q	600	600	600	600	600	600	600
O	Pool N's Total Revenue Rate (%)	N/B	0.100000%	0.085714%	0.060000%	0.060003%	0.060012%	0.060020%	0.085714%
P	Pool N's Revenue from Transaction Fee (TR)		100	100	100	100	100	100	100
Q	Pool N's Revenue from private R. (PR)		500	500	500	500	500	500	500
R	Node n's Underlying Revenue	N × E	0	60	240	240	240	240	60
S	Pool N's Underlying Revenue Rate (%)	N/B	0.100000%	0.085714%	0.060000%	0.060003%	0.060012%	0.060020%	0.085714%
T	Pool N's Lending Interest Rate (%) [M × 110%]	S × 110%	0.110000%	0.094286%	0.066000%	0.066004%	0.066013%	0.066023%	0.094286%
U	Node n's Lending Interest	G × pre T	-	-	282.86	197.96	197.88	197.81	(0.00)
V	Node n's General Revenue (GR)		0	50	100	100	100	100	50
W	Node n's Lending Automatic Repayment	IF(G-M)>0, R-U+V	-	-	57	142	142	-	-
X	Node N's net profit			110	-	-	-	142	110

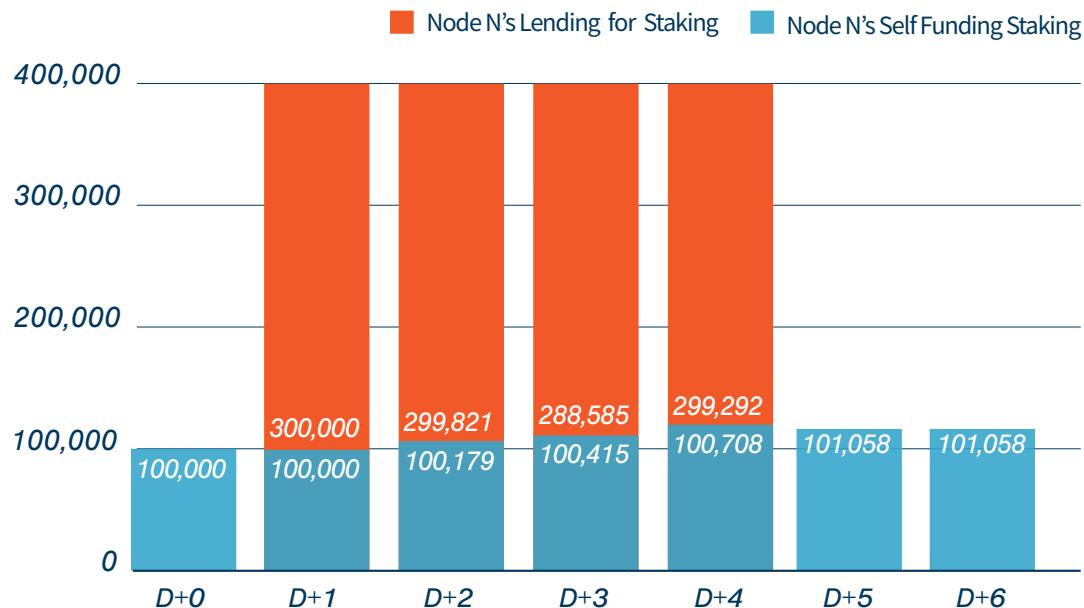
[Figure 44] Pool N's Lending Example



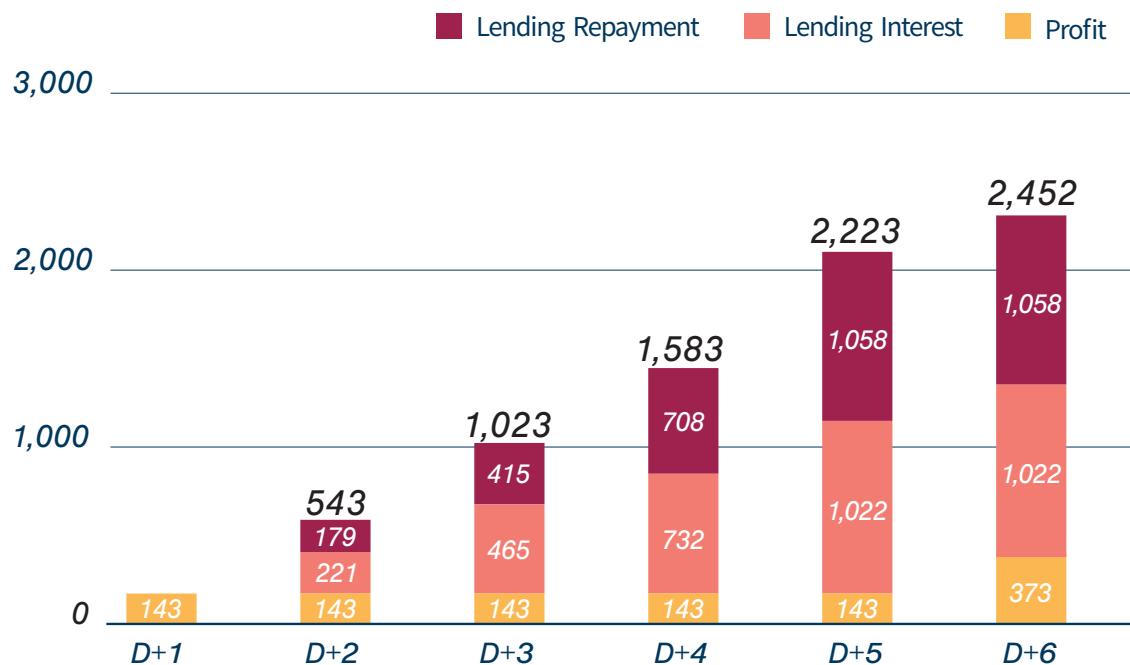
[Figure 45] Pool N's Staking Distribution



[Figure 46] Pool N's Underlying Revenue Rate, Lending Interest Rate, and Total Revenue Rate



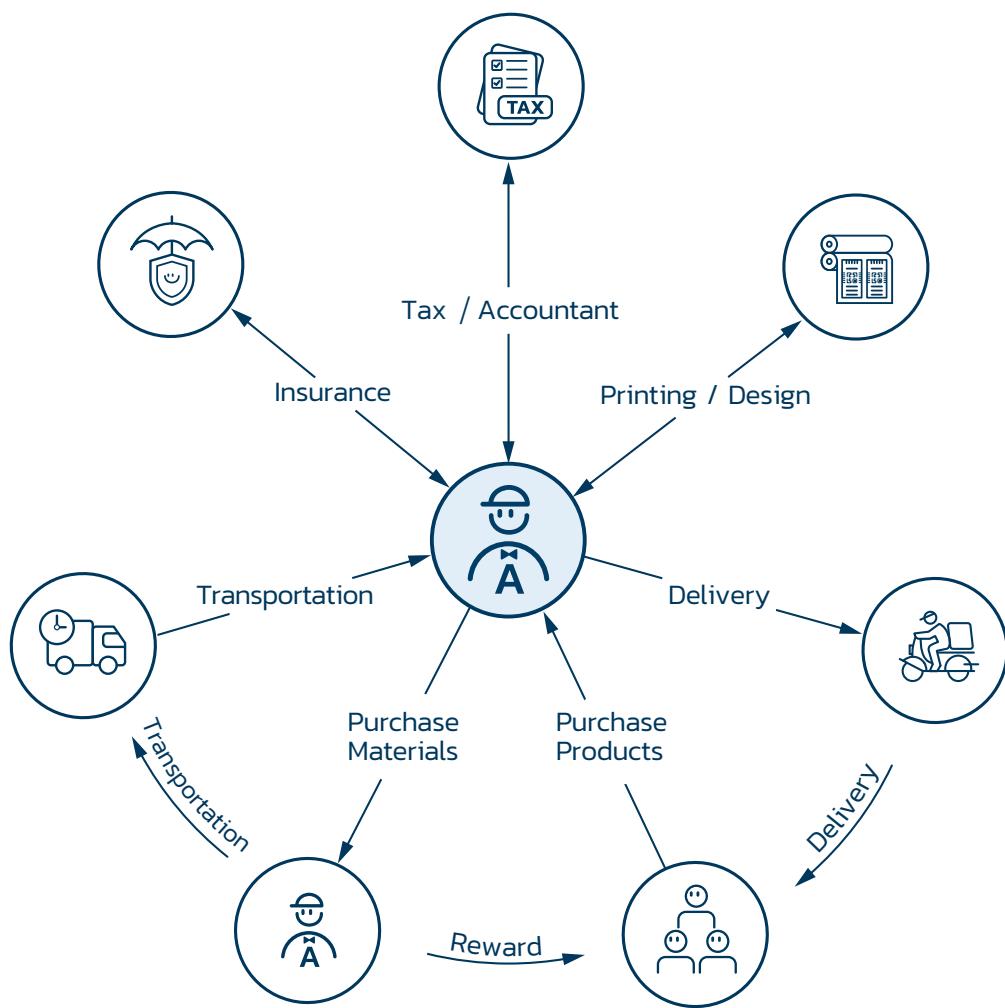
[Figure 47] Change of Node n's Staking Amount Over Time



[Figure 48] Change of Node n's Revenue Over Time

6) SGT Ecosystem

SGT usage ecosystem is an environment in which the distributed tokens are freely used as a currency within the market and do not stay stationary within the wallets of users. The market will serve as a place where tokens can be used to purchase materials or products necessary for running a store or to transact as a payment for a product or services.



4. Roadmap

