

What Neighbors Know, Let the World Know

ZIQOO Technical Paper | Oct 18, 2026 | v1.0

Abstract

Neighbors and visitors may evaluate the same local business differently. The ZIQOO app therefore presents Neighbor Reviews and Visitor Reviews separately rather than combining them into a single rating: reviews written by neighbors about businesses near their My Places are kept apart from reviews written by temporary visitors. The app also presents Pros and Cons, recommended menu items, wait times, and reviewer age groups. Neighbor Reviews receive a Higher-Tier Reward, whereas Visitor Reviews and all other reward activities receive a Standard Reward. 1:1 Chats use end-to-end encryption (E2EE), while Private Group Chats use Messaging Layer Security (MLS). The app also offers Public Channels without regional limits, as well as Neighborhood News and Neighborhood Groups for users in the same Neighborhood Area. International News and International Groups connect international users in the same Neighborhood Area who share a nationality or at least one spoken language. This paper describes the design and current implementation of these features, the issuance, circulation, security, and operational structure of ZIQOO Token, and the validation questions to be examined using actual service data. It is provided for informational purposes only and is neither investment advice nor an offer to buy or sell ZIQOO Token. Readers should also review the Legal Notice and Key Risk Factors in Section 11.

Keywords

Neighbor Review, Visitor Review, Neighborhood Community, International Community, E2EE/MLS, ZIQOO Token

1. Introduction

Reviews are an important source of information when people choose a local business they have not used before, such as a restaurant, clinic, café, beauty salon, or other everyday service. Yet neighbors who use businesses near their My Places and people who visit an area temporarily for travel or work may experience the same business differently and evaluate it from different perspectives. The ZIQOO app therefore presents Neighbor Reviews and Visitor Reviews separately rather than combining these perspectives into a single rating.

Neighbors who use a business repeatedly may notice whether its service remains consistent or its prices change. Visitors, by contrast, may focus on what they experience during a brief visit, such as first impressions, accessibility, and on-site guidance. Combining both groups into one rating can obscure differences that arise from these distinct experiences.

This paper describes five design features of the ZIQOO app. First, the app separates neighbors' and visitors' ratings of local businesses. Second, it lets users write reviews by selecting frequently used phrases for Pros and Cons. Third, Neighbor Reviews of businesses near My Places, such as home or work, receive a Higher-Tier Reward, whereas Visitor Reviews and all other reward activities receive a Standard Reward.

Fourth, chat and community features differ in scope and participation rules. 1:1 Chats, Private Group Chats, and Public Channels are available without regional limits. Neighborhood News and Neighborhood Groups are open to users in the same Neighborhood Area. International News and International Groups are open to international users in the same Neighborhood Area and connect those who share a nationality or at least one spoken language.

Fifth, 1:1 Chats use end-to-end encryption (E2EE), while Private Group Chats use Messaging Layer Security (MLS). Public Channels, Neighborhood News, Neighborhood Groups, International News, and International Groups are communities

with many participants, intended for open information sharing, and are therefore not covered by E2EE or MLS.

The main features of the ZIQOO app are already implemented: Neighbor Reviews and Visitor Reviews; Neighborhood News, Neighborhood Groups, International News and International Groups; nationality and spoken-language selection for the International Community; encryption of 1:1 Chats and Private Group Chats; and a self-custodial wallet [P1]. Token rewards and certain operational features will be enabled in stages according to the official launch schedule.

2. Why Separate Neighbor and Visitor Reviews

2.1 Different Perspectives of Neighbors and Visitors

Pezenka and Weismayer analyzed 100,831 TripAdvisor reviews of restaurants in Washington, D.C., comparing reviews written by locals with those written by visitors [1]. Crowding, payment methods, atmosphere, and location had significantly different effects on overall ratings in the two groups, and evaluations of food, menus, and facilities also differed in direction. This finding does not imply that locals' ratings are more accurate; rather, it shows that locals and visitors offer different perspectives on the same business.

For example, some businesses attract many visitors because they feature prominently in advertising or tourist information. Others receive little advertising but become well known among locals through firsthand experience of their food and service. In such cases, visitor and local ratings may reflect different paths of discovery and different experiences. Viewing the two groups' ratings separately can therefore help users understand a business more clearly.

2.2 Rating Differences by Tourist or Local Status

Xu et al. found that the same consumer rates restaurants differently as a tourist and as a local [2]. As tourists, consumers were at least 13.4% more likely to give higher ratings than as locals. Their focus also shifted: as locals, they paid more attention to location, cooking, and price; as tourists, to service, environment, and emotional experience. Their evaluations also tended to move from cognitive toward emotional judgment.

Two limitations should be considered when applying these findings to the ZIQOO app. First, the study analyzed data from a Chinese online review platform, so the same differences cannot be assumed to hold in other countries or services. Second, the study's distinction between locals and tourists differs from the ZIQOO app's definition of neighbors and visitors, which is based on each user's registered My Places and Neighbor Review Range.

Nevertheless, the study shows that ratings of the same business can vary with the reviewer's relationship to the area. The ZIQOO app therefore displays Neighbor Ratings and Visitor Ratings separately rather than combining them. Whether the two ratings also differ in actual service data will be examined in validation question Q1 (Section 8).

2.3 Review Manipulation Risks and Neighbor Review Limits

Online reviews are an important source of information about customer experience, but they can be manipulated in response to businesses' economic incentives and competitive pressures [3][4]. The buying and selling of fake reviews and organized review manipulation have also been documented in online product markets [5][6]. These findings, however, cannot be applied directly to local business reviews.

Many services verify visits to reduce false reviews. In Korea, Naver Place verifies visits using receipts, payment records, reservations, and orders [7]. Even so, false reviews based on fake or altered receipts have been detected, and Naver has introduced dedicated detection measures and penalties [8]. Visit verification alone therefore cannot fully guarantee that a review is truthful.

Likewise, the ZIQOO app does not claim that the neighbor-visitor distinction alone guarantees truthful reviews, and it does not require separate visit verification. It does, however, limit review volume. A user may write up to 50 Neighbor Reviews in total during the first year after their first Neighbor Review; thereafter, the cumulative limit increases by 10 each year. In addition, each user may keep only one undeleted review per business.

3. Review Design and Current Implementation of the ZIQOO App

3.1 Separating Neighbor and Visitor Reviews

The ZIQOO app classifies reviews of local businesses as Neighbor Reviews or Visitor Reviews and displays the two separately. My Places are locations where a user regularly spends time, such as home, work, or another familiar place. A Neighbor Review covers a business near one of the user's My Places. For each place in My Places, the user selects a Neighbor Review Range of 1–3 km, and Neighbor Reviews can be written for businesses within that range.

For businesses within the Neighbor Review Range, users may write either a Neighbor Review or a Visitor Review; for businesses outside it, only Visitor Reviews are available.

Visitor Reviews cover businesses in areas visited temporarily, for example during travel or business trips. Each user may write up to 100 Visitor Reviews in any rolling 365-day period. Neighbor Review limits follow the rules in Section 2.3.

Eligibility to write a Neighbor Review is determined by the locations of the user's registered My Places and the business. The app does not separately verify whether the user actually visits the business repeatedly.

Ratings from the two review types are never combined; they are displayed separately as a Neighbor Rating and a Visitor Rating. Users can therefore read reviews from neighbors near their My Places and reviews from temporary visitors side by side and compare the two groups directly.

Table 1. Roles and reward levels of the two review types

Category	Neighbor Review	Visitor Review
Main experience	Experience near My Places	Experience from a temporary visit
Display	Neighbor Rating	Visitor Rating
Reward level	Higher-Tier Reward	Standard Reward

3.2 Phrase-Based Reviews for Pros and Cons

Beyond separating Neighbor and Visitor Ratings, the ZIQOO app currently supports phrase-based reviews for Pros and Cons. Users can choose an existing phrase or add a new one. Pros and Cons are listed by selection frequency. When a newly entered phrase resembles an existing one, the app suggests the existing phrase, reducing fragmentation of the same opinion across similar wording.

This feature reduces the effort required to write and read reviews and helps users quickly identify characteristics selected by many reviewers. For example, if phrases such as “Friendly,” “Short wait time,” and “Expensive” are selected repeatedly, users can grasp a business's Pros and Cons at a glance without reading long reviews. Reviewers can also quickly select phrases that match their own experience.

However, displaying other users' selections first may influence the choices of later reviewers. In a randomized experiment, Muchnik et al. showed that ratings already displayed online can influence subsequent rating behavior [9]. That study, however, examined a social news website rather than local business reviews.

3.3 Wait Times, Recommended Menu Items, and Age Groups

Neighbor Reviews and Visitor Reviews may optionally include the wait time, recommended menu items, and the reviewer's age group. Wait times are entered for three periods: lunch, dinner, and other. Recommended menu items can be selected from the menu registered by the business owner or entered directly. The ZIQOO app displays the average wait time for each period, the number of recommendations for each menu item, and the number of reviews by age group.

Recommended menu items and average wait times are part of the business recommendation information described in a related patent application [PT8], while location-based recommendation technology related to age groups is described in [PT10]. The current age-group feature, however, only displays the number of reviews by age group and therefore does not implement the full scope of [PT10].

3.4 Distinguishing Registered Patents from Product Effects

Three Korean patents titled “Location-Based Information

Providing Method,” relating to the separation of Neighbor Reviews and Visitor Reviews, have been registered [PT1][PT2][PT3]. Another Korean patent has been registered for technology that connects users in the same area based on origin information [PT4]. The International Community in the ZIQOO app currently connects users in the same Neighborhood Area based on nationality or spoken language.

Patent registration alone, however, does not demonstrate product effects such as better business choices or more active interaction among users. These effects will be evaluated with actual service data through the validation questions in Section 8.

4. ZIQOO Token and Reward Structure

4.1 Rewards for Reviews and Activities

ZIQOO Token is intended as the reward unit for local information contributed by users and for qualifying activity in the app. Under defined criteria, rewards are planned for Neighbor Reviews and Visitor Reviews; for Weekly Missions in 1:1 Chats, Private Group Chats, the Neighborhood

Community, and the International Community; and for Basic Settings. Specific reward levels and criteria are given in Section 4.2 and Table 2.

4.2 Reward Levels and Weights

All rewards fall into two tiers: Higher-Tier Rewards and Standard Rewards. To encourage more Neighbor Reviews of businesses near My Places, Neighbor Reviews receive a Higher-Tier Reward, whereas Visitor Reviews and all other reward activities receive a Standard Reward. In the Year 1 operating example, Neighbor Reviews carry a reward weight of 3, and Visitor Reviews and other reward activities a weight of 1 [P1]. This 3:1 ratio is a Year 1 example, not a permanently fixed ratio.

Star ratings and the positive or negative tone of a review do not affect the reward amount. The FTC prohibits offering review incentives conditioned on a particular positive or negative sentiment and notes that failing to disclose an incentive may raise compliance issues [10]. The ZIQOO app therefore rewards the act of writing a review, not the direction of the rating.

Table 2. ZIQOO Token reward levels by activity

Activity	Purpose	Criteria / Limit	Reward Level
Neighbor Review	Experience near My Places	Up to 50 in total; the limit increases by 10 each year	Higher-Tier (Year 1 example: weight 3)
Visitor Review	Experience from temporary visits	Up to 100 in any rolling 365-day period	Standard (Year 1 example: weight 1)
Neighborhood News	Information sharing among users in the same Neighborhood Area	Weekly Mission (once a week)	Standard
Neighborhood Groups	Open communication among users in the same Neighborhood Area	Weekly Mission (once a week)	Standard
International News	Information sharing among international users in the same Neighborhood Area who share a nationality or at least one spoken language	Weekly Mission (once a week)	Standard
International Groups	Communication among international users in the same Neighborhood Area who share a nationality or at least one spoken language	Weekly Mission (once a week)	Standard
1:1 Chat	Personal communication	Weekly Mission (once a week)	Standard
Private Group Chat	Group communication among acquaintances	Weekly Mission (once a week)	Standard
Basic Settings	Sign-up and initial setup	4 items; once per item per account	Standard

4.3 Reward Caps and Adjustments

The Annual Reward Cap and the quarterly adjustment of payouts by activity are described in Section 6.2 and Table 4. If abuse such as multiple accounts or automation is detected, rewards may be restricted or additional preventive measures may be applied.

4.4 Why a Token Is Needed

Although Weekly Mission rewards could be operated with ordinary points, the ZIQOO app uses ZIQOO Token so that users can hold their rewards directly in their own self-custodial wallets rather than as points managed by the ZIQOO operator. ZIQOO Token also provides a common reward unit across countries and allows issuance and transfer records to be verified through on-chain records.

Initially, rewards will focus on Neighbor Reviews,

Visitor Reviews, and other reward activities. If actual demand from users and businesses is confirmed, use cases may expand in stages to payments at businesses and in-app services.

4.5 Self-Custodial Solana Wallet

Users can store and manage ZIQOO Token through the Solana wallet built into the ZIQOO app. The app already includes a self-custodial HD wallet that supports SOL and SPL tokens on the Solana network. The wallet’s recovery phrase (mnemonic phrase) is not stored on ZIQOO servers; users keep it themselves [P1].

Accordingly, the ZIQOO operator neither holds nor manages users’ assets. Users hold and manage ZIQOO Token directly in their own wallets. If a recovery phrase is lost or exposed, the wallet’s assets may be lost, so the phrase must be stored securely.

5. Chat, Community, and Encryption

5.1 Encrypted 1:1 Chat

The ZIQOO app applies end-to-end encryption (E2EE) to 1:1 Chats by default to protect conversations between users [P1]. Messages are decrypted only on the sender's and recipient's devices, and the system is designed so that neither servers nor third parties can read the conversation contents. Signal and Wire are well-known examples of services that apply E2EE to conversations by default [11][12].

5.2 Encrypted Private Group Chat

Private Group Chats use Messaging Layer Security (MLS, RFC 9420), an IETF standard [13]. MLS is designed to manage and update encryption keys securely in multi-member chats so that new keys can take effect when members join or leave. It also provides forward secrecy and post-compromise security [13]. Wire likewise applies MLS to its messaging service [12].

By contrast, Public Channels, Neighborhood News, Neighborhood Groups, International News, and International Groups are communities with many participants, intended for open information sharing. They are therefore not covered by E2EE or MLS [P1].

In 1:1 Chats and Private Group Chats, photos, videos, and attachments are encrypted as well as text, and attachments are encrypted on the user's device before storage [P1]. Appendix B summarizes the scope, participants, posting permissions, and encryption of each chat, channel, and community feature. E2EE and MLS do not, however, address every security risk, such as compromised user devices, screen captures, or metadata that remains on servers.

5.3 Neighborhood and International Communities

The ZIQOO app organizes its local community features into two categories: the Neighborhood Community, which provides Neighborhood News and Neighborhood Groups, and the International Community, which provides International News and International Groups.

Each user selects either their home or workplace as My Neighborhood. The Neighborhood Area is based on a global grid of 1 km cells and includes all cells within the user's selected Neighborhood Radius, centered on the cell containing the user's home or workplace. Because the grid does not depend on national administrative districts, the same community framework can be applied across countries without separately implementing each country's administrative boundaries. The Neighborhood Area is distinct from the Neighbor Review Range used for writing reviews.

Neighborhood News and Neighborhood Groups are open to users in the same Neighborhood Area. International News and International Groups are open to international users in the same Neighborhood Area. To participate in the International Community, users must select a nationality or a spoken language.

In the International Community, the country where the app is currently being used and that country's local language are excluded from the nationality and spoken-language options. Users are connected when their selected nationality or at least one spoken language matches. For example, users in the same Neighborhood Area who select Vietnam as their nationality are connected with one another. Users with different nationalities are also connected if they select the same spoken language.

6. Issuance, Allocation, and Long-Term Reward Plan

6.1 Initial Issuance and Allocation of 1 Billion ZIQOO

ZIQOO Token will be issued as an SPL Token on the Solana network, with a planned Initial Supply of 1 billion ZIQOO. Because additional issuance is planned each year, 1 billion is the Initial Supply rather than the maximum supply.

Of the Initial Supply, 65%, or 650 million ZIQOO, is allocated to user rewards. These tokens will be issued in advance and held until they are distributed to users as rewards for reviews, Weekly Missions, and other activities. Because the tokens already exist when rewards are paid, reward payments do not increase the Total Supply. They only move tokens from the Reward Reserve to users, which increases only the circulating supply. In this paper, circulating supply means the amount of ZIQOO Token available to users and the market, excluding tokens that are locked or held by the ZIQOO operator. No portion of the Initial Supply is allocated to investors.

6.2 Annual Issuance of 30 Million ZIQOO

An additional 30 million ZIQOO, equal to 3% of the Initial Supply, is planned to be issued each year [P1], and this amount is intended to remain unchanged throughout the current 10-year plan. The post-Year-10 issuance policy has not yet been determined; any decision or change will be disclosed before it takes effect and reflected in this paper.

On this schedule, 300 million ZIQOO will be issued over 10 years, bringing the Total Supply to 1.3 billion at the end of Year 10. This is the planned Total Supply at that point, not the maximum supply.

Over the same 10 years, up to 850 million ZIQOO may be used for user rewards: 550 million of the 650 million Reward Reserve plus the 300 million issued during the period [P1]. In Years 1–9, each year's newly issued 30 million is used together with the Reward Reserve, and the current plan assumes that 550 million of the Reward Reserve will be used through Year 9. In Year 10, that year's newly issued 30 million is used for rewards. The remaining 100 million of the Reward Reserve is held as a Reward Buffer that may be used from Year 10. However, if special circumstances arise in which rewards cannot be operated within the Annual Reward Caps in Table 4, such as user growth substantially exceeding the plan, the Reward Buffer may also be used in Years 1–9. If the Reward Buffer is used, the increased Annual Reward Cap and the reason for the increase will be disclosed before the year begins, and the cap for a year already under way will not be changed.

As shown in Table 4, the Annual Reward Cap for each year is set in advance and remains unchanged during that year. Every three months, actual reward payouts are reviewed against the cap, and payouts by activity may be adjusted for the remainder of the year so that the cap is not exceeded.

6.3 Year 1 Reward Example: 230,000 Users

Year 1 assumes 230,000 eligible users. For budgeting purposes, each user is assumed to write 50 Neighbor Reviews and 50 Visitor Reviews. The Year 1 example weights from Section 4.2 apply: 3 for Neighbor Reviews and 1 for all other reward activities [P1]. Weekly Missions in 1:1 Chats, Private Group Chats, Neighborhood News, Neighborhood Groups, International News, and International Groups are rewarded

once a week per activity, and the budget assumes 52 rewards per activity per year.

Under these assumptions, the planned payout is about 118.7 million ZIQOO, or about 98.9% of the Year 1 Annual Reward Cap of 120 million ZIQOO. The Year 1 cap consists of 30 million ZIQOO from new issuance and 90 million

ZIQOO from the Reward Reserve.

Table 5 is a budget simulation illustrating the scale of Year 1 rewards. It assumes that a reward weight of 1 corresponds to 1 ZIQOO per activity.

Table 3. Allocation plan for the initial 1 billion ZIQOO [P1]

Allocation	Share	Amount (million ZIQOO)	Maximum Initial Circulating Supply (million ZIQOO)	Lock-up and Release Schedule
Reward Reserve	65%	650	0	Enters circulation as rewards are paid
Initial Development Team	15%	150	0	12-month cliff, then monthly release over 36 months (48 months total)
Ecosystem, Community & Partnerships	7%	70	30	Remaining 40 million released monthly over 36 months
Liquidity	5%	50	50	Initial liquidity provision
Operations & Development Reserve	5%	50	0	12-month cliff, then monthly release over 36 months (48 months total)
Emergency Reserve	3%	30	0	12-month cliff, then monthly release over 36 months (48 months total)
Total	100%	1,000	80	–

Note: All cliff and release periods are counted from the initial distribution of ZIQOO Token.

Table 4. Annual Reward Cap and Reward Reserve use by year

Year	Eligible Users (million)*	Annual Reward Cap (million ZIQOO)**	Average Reward Budget per User (ZIQOO)***	Reward Reserve Used (million ZIQOO)** ,****
1	0.230	120	~522	90
2	0.591	120	~203	90
3	1.517	120	~79	90
4	3.894	110	~28	80
5	10	97	~9.7	67
6	10	83	~8.3	53
7	10	70	~7.0	40
8	10	57	~5.7	27
9	10	43	~4.3	13
10	10	30	~3.0	0

* Eligible users are assumed to grow from 230,000 in Year 1 to 10 million in Year 5 and to remain at 10 million in Years 6–10. These figures are assumptions, not forecasts of actual user growth.

** Figures are rounded to the nearest million.

*** The average reward budget per user is that year's Annual Reward Cap divided by the assumed number of users. It is not the maximum reward per user.

**** Of the 650 million ZIQOO Reward Reserve, 550 million is planned to be used in Years 1–9, and the remaining 100 million is held as the Reward Buffer.

The Reward Buffer may be used from Year 10 and, in special circumstances, also in Years 1–9. In that case, the increased Annual Reward Cap will be disclosed before the year begins.

6.4 Vesting and Maximum Initial Circulating Supply

Vesting and cliffs are used so that tokens allocated to the team and other groups are not released to the market all at once. Vesting unlocks allocated tokens in stages according to a schedule, while a cliff is the initial period during which tokens remain locked before unlocking begins.

The Initial Development Team, Operations & Development Reserve, and Emergency Reserve allocations are released monthly over 36 months after a 12-month cliff from the initial distribution, for 48 months in total. The Operations & Development Reserve is used for long-term service and infrastructure operations, technical development, security reviews, and legal and regulatory compliance. The Emergency Reserve is used for unforeseen circumstances,

including responses to user harm arising from security incidents. Both allocations are used only to the extent unlocked, when actual costs arise, and only in the amount needed; they are not disposed of on a regular or automatic basis. Operating and emergency costs incurred before these allocations unlock are funded by the ZIQOO operator's own capital, and when either allocation is used, its principal purpose and the amount used will be disclosed. The Ecosystem, Community & Partnerships allocation is intended to support ecosystem expansion, including user events, regional launch campaigns, and participation incentives for businesses, communities, and business partners. Of this allocation, 30 million ZIQOO is included in the Maximum Initial Circulating Supply, while the remaining 40 million ZIQOO is released monthly over 36 months from the initial distribution.

Tokens subject to vesting will be held in an on-chain lockup so that they are released only according to the schedule in Table 3. Specific implementation methods will be determined in consideration of applicable laws and regulations, service operating conditions, and market conditions, and material changes will be disclosed before they take effect.

The Maximum Initial Circulating Supply is 80 million ZIQOO, or 8% of the Initial Supply: 50 million for Liquidity and 30 million for Ecosystem, Community & Partnerships. This is the maximum amount allocated for distribution without a lock-up at launch; it does not mean that all 80 million will enter circulation immediately after launch.

The Maximum Potential Circulating Supply in Appendix A assumes that all tokens unlocked through vesting and all tokens paid as rewards up to each point have entered circulation. The actual circulating supply may therefore be lower than this maximum.

Long-term vesting of this kind has also been used by other token projects. Uniswap, for example, applied four-year vesting to allocations for its team, investors, and advisors [14].

6.5 Mint Authority and Treasury Management

The mint authority and treasury of ZIQOO Token will be controlled by a 2-of-3 multisig. New issuance or transfers of treasury assets require signatures from at least two of the three signing keys, so a single compromised key cannot control the mint authority or treasury assets on its own. In the early service stage, the founder manages all three signing keys, so this structure protects against the leak or loss of a single key. Key management after the transfer to a corporate entity will be disclosed once it is decided. No freeze authority will be set for ZIQOO Token; consequently, the ZIQOO operator will be unable to freeze users' token accounts or arbitrarily restrict transfers of ZIQOO Token. Actual issuance, reward payouts, and circulating supply will be published on the ZIQOO website every three months. The mint address of ZIQOO Token and the wallet addresses for each allocation will also be published there, so that anyone can verify issuance and wallet balances on-chain.

During the early service stage, the ZIQOO operator

manages payouts by activity and reward policies within the Annual Reward Cap. Any major change to reward policies or issuance plans will be disclosed together with its effective date, and major changes to the issuance and allocation plan will also be reflected in this paper.

7. Business Search and Global Expansion

Business search, Neighbor Reviews, and Visitor Reviews are available in regions where business data has been prepared. The service will launch in Korea and the U.S. states of California and Washington, and then expand in stages across the United States and to other countries. A large-scale business dataset for Korea has already been built on the server, and a process for verifying the business registration information submitted by business owners has been implemented for Korea and the U.S. states of California and Washington. Once verified, business owners can manage their business information and menus. QR-code-based ZIQOO Token payments and tipping are planned for future development.

When the service expands to new countries or other U.S. states, the next region will be selected by comparing regional active-user counts, business search volume, use of key features, and the volume of business data that can be obtained. The same metrics will be compared across countries to identify the most-used features and set development and operating priorities.

Business search and community features have different geographic availability. In countries where business search is not yet supported, users cannot search for businesses or write Neighbor Reviews and Visitor Reviews, but they can still use 1:1 Chats, Private Group Chats, Public Channels, Neighborhood News, Neighborhood Groups, International News, and International Groups. User communities can therefore form before business data becomes available in a country.

At launch, the ZIQOO app supports 15 App Language (Locale) options, or 14 languages if Simplified and Traditional Chinese are counted as one [P1]. The spoken languages selected for the International Community are managed separately from the App Language (Locale) that determines the interface language.

Table 5. Year 1 reward budget scenario by activity [P1]

Activity	Budget Assumption	Reward Weight	Planned Payout (million ZIQOO)
Neighbor Review	50 reviews	3	34.5
Visitor Review	50 reviews*	1	11.5
1:1 Chat Weekly Mission	52 rewards (once a week)	1	11.96
Private Group Chat Weekly Mission	52 rewards (once a week)	1	11.96
Neighborhood News	52 rewards (once a week)	1	11.96
Neighborhood Groups	52 rewards (once a week)	1	11.96
International News	52 rewards (once a week)	1	11.96
International Groups	52 rewards (once a week)	1	11.96
Basic Settings	4 items (one-time)	1	0.92
Total	—	—	118.68

* Users may write up to 100 Visitor Reviews in any rolling 365-day period, but this budget assumes 50 per user per year. These figures are assumptions for estimating the Year 1 planned payout, not the maximum reward per user.

8. Validation Questions

The actual effects of the ZIQOO app will be evaluated

using data collected during service operation. This paper defines four main validation questions:

Q1. Within the Neighbor Review Range, do Neighbor Reviews and Visitor Reviews actually differ in ratings and

in the Pros and Cons selected?

Q2. In phrase-based reviews, how are existing phrases and newly added phrases used in practice, and do selections become excessively concentrated on particular phrases?

Q3. How do the number of Neighbor Reviews and their share of all reviews change before and after Neighbor Review rewards are introduced?

Q4. What proportion of Weekly Mission participants remain active after 4 weeks and after 12 weeks?

The admin dashboard tracks the number of Neighbor Reviews and Visitor Reviews within the Neighbor Review Range, average ratings, selection rates for Pros and Cons, and the number of businesses with reviews. The number and share of Neighbor Reviews are compared before and after rewards begin, and the continued activity of Weekly Mission participants is checked after 4 and 12 weeks. For reward operations, cumulative ZIQOO payouts and the remaining annual reward capacity are reviewed every three months and used to adjust payouts by activity.

9. Founder and Technology Development

ZIQOO was founded solely by Sungil Kim, Ph.D., who also develops the ZIQOO app himself. His background includes blockchain technology and service development, including co-founding eosnodeone, an EOS blockchain node operator, and ALFA DLTA Inc., a crypto-backed lending business [P1].

In the blockchain field, he wrote a 2017 research manuscript on spam attacks and fee problems in Turing-complete cryptocurrency networks [F3]. In 2021, he published “New Crypto-Secured Lending System with a Two-Way Collateral Function,” a study of crypto-backed lending structures, in the academic journal *Ledger* [F1]. The related two-way collateral technology is registered as Korean Patent No. 10-2672503 [F2].

Ten patents and patent applications related to the core features of the ZIQOO app are currently in the founder’s name: six registered patents and four pending applications [PT1]–[PT10]. Technology for rating businesses separately by neighbors and visitors relates to [PT1]–[PT3]; technology for connecting users in the same area based on origin information relates to [PT4]; and messaging technology relates to [PT5]–[PT7]. In business recommendations and rewards, applications have been filed for technology linking business information, such as recommended menu items and wait times, to token rewards [PT8]; for displaying business recommendation information [PT9]; and for location-based recommendations related to age groups [PT10]. [PT1]–[PT4] all stem from the original application filed on January 16, 2015 (Application No. 10-2015-0008314); [PT1] is the registration of that original application, and [PT2]–[PT4] were registered through divisional applications.

In messaging, technologies for controlling messages [PT5] and for displaying text on mobile device screens [PT6] are registered. A further application covers new message formats and processing methods, including Fog Message, Open Together, Hidden Message, Text Art, and Free-Grid Text Art [PT7].

This body of work began with blockchain and cryptocurrency and has since expanded to location-based business recommendations, the separation of Neighbor Reviews and Visitor Reviews, recommended menu items and wait times, token rewards for reviews, the Neighborhood and International Communities, and messaging technology. All registered patents and pending applications are currently held in the founder’s name and are planned to be transferred to a

ZIQOO corporate entity. Whether the pending applications are granted depends on the outcome of examination [P1]. Official titles and application and registration numbers are listed under Patents in the references.

10. Conclusion

The ZIQOO app presents a Neighbor Rating and a Visitor Rating separately rather than merging neighbors’ and visitors’ experiences of the same business into a single rating. It also makes Pros and Cons, recommended menu items, and wait times easy to review. Neighbor Reviews receive a Higher-Tier Reward, whereas Visitor Reviews and all other reward activities receive a Standard Reward.

The token price is not a validation target of this paper. The main validation targets are the differences between Neighbor Reviews and Visitor Reviews in actual use, the volume of Neighbor Reviews generated, the continued activity of Weekly Mission participants, and reward operations within the Annual Reward Cap.

11. Legal Notice and Risk Factors

11.1 Legal Notice

This paper is an informational document describing the structure and operating plans of the ZIQOO app and ZIQOO Token. It is not intended as an investment solicitation or financial advice. No guarantee is made regarding the price, appreciation, or investment return of ZIQOO Token. Holding ZIQOO Token does not, by itself, confer equity ownership, dividend rights, profit-sharing rights, or voting rights. The service, token, and reward plans described in this paper, together with figures such as user counts, reflect plans or assumptions as of the date of writing and may change as a result of technical development, service operation, or applicable laws.

As of the publication date of this paper, the ZIQOO service is operated by its founder, Sungil Kim, and the operating role is planned to be transferred to a ZIQOO corporate entity. Under applicable laws, the use of ZIQOO Token or certain features may be restricted in some countries or regions. Before ZIQOO Token rewards and related features are offered in the United States, applicable federal and state securities, digital asset, tax, and consumer protection requirements will be reviewed. This paper was originally written in Korean; if a translation differs from the Korean version, the Korean version prevails.

11.2 Key Risk Factors

Regulatory Risk. Laws and regulations governing digital assets, reward programs, wallets, and related services vary by country and region and may change. Accordingly, the way certain features are offered or the scope of their availability may change.

Value Volatility Risk. The value of ZIQOO Token may fluctuate significantly or become effectively worthless.

Blockchain and Technology Risk. Blockchain network outages, software errors, security vulnerabilities, or failures of external services may interrupt certain features or impair access to assets. In particular, if a user loses or exposes their wallet’s recovery phrase, the ZIQOO operator cannot recover the affected assets.

Reward Program Risk. Rewards may be restricted if abuse such as multiple accounts or automation is detected. The reward program may be changed, reduced, or discontinued for legal or operational reasons.

Business Risk. Regional expansion and feature operations depend on user numbers, business data, technical development, and operating conditions. The actual effects of each feature remain subject to the validation questions in Section 8.

Key-Person Risk. ZIQOO is currently developed and operated directly by its founder. A prolonged absence of key personnel or an interruption in their work could affect development schedules, service operations, and major decisions. The signing keys for the mint authority and treasury are also managed by the founder in the early stage. Decisions on whether and how much of the Operations & Development Reserve and Emergency Reserve to use are also made by the founder in the early stage.

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Project Materials

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- [PT5] S. Kim, "Message Control Method And Service Computing Device Thereof," KR Patent 10-2581539 (Application No. 10-2023-0016629), registered Sep 19, 2023.
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Appendix A. Long-Term Circulating Supply Simulation of ZIQOO Token

Point in Time	Annual Vesting Unlock (million ZIQOO)	Maximum Potential Circulating Supply (million ZIQOO)	Cumulative Reward Cap (million ZIQOO)
Initial distribution	0	80	0
End of Year 1	13	213	120
End of Year 2	90	423	240
End of Year 3	90	633	360
End of Year 4	77	820	470
End of Year 5	0	917	567
End of Year 6	0	1,000	650
End of Year 7	0	1,070	720
End of Year 8	0	1,127	777
End of Year 9	0	1,170	820
End of Year 10	0	1,200	850

Note: Figures are rounded to the nearest million. The planned Total Supply at the end of Year 10 is 1.3 billion ZIQOO. The 100 million ZIQOO Reward Buffer held in the Reward Reserve is not included in the Annual Reward Caps in Table 4 and is therefore not included in the Maximum Potential Circulating Supply; if it is used, the Maximum Potential Circulating Supply increases by the amount used.

Appendix B. Chats, Channels, and Community Features and Their Encryption

Type	Service Scope	Participants	Posting Permission	E2EE / MLS
1:1 Chat	No regional limit	Two users	Both users	E2EE
Private Group Chat	No regional limit	Invited members	Members	MLS
Public Channel*	No regional limit	Subscribers	Channel operator only	Not applied
Neighborhood News / Neighborhood Groups*	Same Neighborhood Area	Users in the same Neighborhood Area	Participants	Not applied
International News / International Groups*	Same Neighborhood Area	International users who share a nationality or at least one spoken language	Participants	Not applied

* Public Channels are available without regional limits; the channel operator posts and subscribers read. Public Channels, Neighborhood News, Neighborhood Groups, International News, and International Groups are communities with many participants and are therefore not covered by E2EE or MLS [P1]. International News and International Groups apply participation conditions based on nationality or spoken language.