

Great Wall: Executive Summary

Yuri S Villas Boas

December 22, 2025

Executive Overview

This document presents an investment opportunity in Great Wall, a company whose mission is to solve the single biggest unsolved problem in cryptocurrency—the “\$5 wrench attack”—and the fragility created by obscurity-based security approaches.

The problem:

As self-custody becomes mainstream as captured by the trend “Not your keys, not your coins”, users are increasingly vulnerable to physical threats and coercion. Great Wall makes it impossible for a user to be forced, under duress, to give up their assets.

We envision a future where customers can move from hiding in fear to declaring their security with loud, proud confidence.

The solution:

Our solution is a novel protocol we call **Tacit Knowledge-Based Authentication (TKBA)**. It is the first and only system designed to simultaneously satisfy four crucial security properties that, until now, have been mutually exclusive:

- **Knowledge-Based (Deviceless):** Access is tied only to the user’s mind (their tacit knowledge), not a physical device, seed phrase, or object that can be stolen or seized.
- **Individual Custody:** Upholds the core crypto promise: ‘Not your keys, not your coins.’ The user remains their own bank, with no reliance on third-party custodians.
- **Anti-Obscure (Anti-Fragile):** Obscurity is fragile; anti-obscurity is anti-fragile. TKBA is anti-obscurer. Its security *increases* as attackers learn more about the protocol, as this knowledge acts as a primary deterrent against attacks that cannot succeed.
- **Coercion Resistance:** The protocol’s architecture (requiring both time and tacit knowledge) makes it impossible for an attacker to gain access by force, neutralizing the \$5 wrench attack.

Differentials:

This unique combination of four properties sets Great Wall apart from all existing solutions, each of which suffers from a critical, and often dangerous, flaw.

Method	Deviceless	Individual	Anti-Obscure	Coercion Res.	Examples	Primary Down-side
TKBA	✓	✓	✓	✓	Great Wall.	relies on user not forgetting their tacit knowledge (which we solve via an integrated memory coach).
Physical	✗	✓	✓	✓	physical vault(s), multiple addresses, Shamir's secret sharing / multisig	astronomically high cost and operational complexity, and geographic binding: "Glorified gold."
Shared/Delegated	✓	✗	✓	✓	exchanges or co-custody companies: Coinbase, Binance, Casa.	negates the core premise of self-custody: "Not your keys..."
Obscurity-Based	✓	✓	✗	💀	decoy wallets; plausible denial; redirectable time-locked transactions	inevitably backfires: once educated about obscure method, attacker has material incentive towards more violence (torture/assassination).
Vanilla Custody	✓	✓	✓	✗	hardware (Ledger, Trezor, Krux BIP39) or software (Electrum, Exodus, Metamask) wallets	completely vulnerable to a wrench attack.

Monetization:

We are capturing this market via a high-margin subscription marketplace connecting Users (who need security) with Providers (who sell idle computation).

Our marketplace's growth is fueled by a provider-driven referral program. Providers are incentivized via affiliate commission to act as a highly-motivated, zero-base-cost sales force. They naturally recruit Users, creating a powerful and scalable growth engine that dramatically lowers our Customer Acquisition Cost (CAC).

Loud, Proud Apparel (Hybrid Model):

A two-tiered approach combining deterrent marketing with community engagement. Primary deterrent items (stickers/decals) are given away as marketing expenses to maximize adoption and create the "yard sign" network effect. Premium apparel is available through a separate "Superfan Store" for revenue generation. This serves as bonus revenue excluded from primary financial projections.

We believe this will create a virtuous cycle of loud, proud community confidence, exponential growth, brand loyalty, and market dominance.

The investment opportunity:

We are seeking a \$600K seed round to launch and scale the marketplace platform toward a 20.00M valuation by Year 3.

Near-Term Timeline

- MVP Ready — Dec 30, 2025
- First 10 Beta Clients — Jan 10, 2026
- End of Beta (50 Clients) — Mar 2026
- Scale Marketing / Hire CMO — Apr 2026

- 1,000 Customers — Jul 2026

1 Key Investment Highlights

1. **Solves the #1 Barrier to Self-Custody:** Addresses the wrench attack, the visceral, unsolved problem that prevents mainstream crypto adoption.
2. **Building the Loud, Proud, and Free Movement:** Our core purpose is to disrupt the culture of fear. By moving the market from hide in the shadows to loud, proud, and free, we give users the confidence to embrace self-custody, accelerating crypto adoption and uniting them as part of this mission.
3. **Creates a “Confident Security” Movement:** The loud apparel is a desirable strategic asset primarily because it signals confident security preparedness. It makes potential attackers understand that users are protected and confident. This builds a loud, proud visible community, driving a virtuous cycle of growth and collective security confidence.
4. **Capital-Efficient Growth Engine:** Our growth is fueled by an aggressive provider-driven referral program starting as 20% commission lifetime until we reach the mark of 20k paying customers to guarantee first mover advantage.
5. **Exceptional Unit Economics:** This provider-driven growth delivers outstanding LTV:CAC ratios of 37:1.
6. **Defensible Network Effects:** As the first-mover, our marketplace builds a powerful moat. A growing base of reputable, anonymous providers creates value that competitors cannot easily replicate.
7. **The Staged Investment Opportunity:** This is a clear, staged path to a 20.00M valuation. The **\$600K Seed** funds the scalable marketplace. Traction from Phase 1, combined with our protocol-driven “Loud, Proud” movement, drives brand-led acquisition, improves conversion and retention, and reinforces CAC efficiency—de-risking and supporting a **Series A** to scale the marketplace and ecosystem.
8. **AI-Bubble Resistant:** Our valuation and growth are driven by fundamental, verifiable protocol security and marketplace economics (computation/subscriptions), not by speculative AI hype. This provides a durable, defensible investment independent of the AI market’s volatility.

2 Business Model: Marketplace + CAC Optimization

2.1 Revenue Stream Segmentation

- **Subscriptions:** Anonymous marketplace for recurring memory-intensive computation services

- **Merchandise (Community Engagement):** Branded items sold via a separate 'Superfan Store' to engage our most passionate users. This is treated as a bonus revenue stream and is not included in the primary financial projections.

2.2 Subscription Service: Anonymous Computation Marketplace

The subscription service operates as a computation matchmaking **marketplace** connecting:

- **Clients:** Users needing recurring memory-intensive computation without owning adequate hardware - anonymity critical for privacy
- **Providers:** PC owners monetizing idle computational capacity - can operate publicly to attract clients

Platform provides anonymous client matching, reputation system, and dispute arbitration.

Key marketplace dynamics:

- Computation jobs are simple but, by design, memory-intensive, lengthy and Clients demand for them is recurrent
- Anonymity is critical for Clients, while Providers can promote services openly
- We align provider success with platform growth. An aggressive referral commission incentivizes providers to recruit clients, transforming them into a highly-motivated, capital-efficient sales force [1].
- First-mover advantage critical to build reputable user base before competitors
- Tiers differentiate by computation duration: 2, 24, 48 and 168 hours

Table 1: Customer Segment Characteristics

Attribute	Subscription Users	Free Users
Technical Level	Low-Medium	High
Purchase Preference	Recurring	Self-hosted (no subscription)
Price Sensitivity	Medium	High
SAM Size	1,400,000[2, 3]	—

SAM refers to the Serviceable Available Market for subscription users. Free (self-hosted) users are excluded from SAM and related financial projections for simplicity. Merchandise is treated solely as community engagement and is not included in financial projections.

3 Enhanced Business Model with CAC Optimization

3.1 Subscription Pricing (Based on Computation Economics)

Table 2: Anonymous Computation Marketplace Economics

Tier	Delay (Hours)	Price	Mix	Provider Cost	Provider GP	Marketplace Rev
Basic	2	1.25	35%	0.36	0.54	0.35
Medium	24	18.00	40%	4.31	8.63	5.04
Professional	48	42.00	15%	8.63	21.57	11.76
Golden	168	210.00	10%	30.20	120.80	58.80
Weighted Avg		34.94	100.00%			9.78

Note: Provider's costs based on 350W @ \$0.12/kWh, 4.28 runs/month. All values in USD/month.

3.2 Marketplace Economics and Competitive Analysis

Our platform operates with a 28% commission rate, positioning us competitively within the marketplace landscape:

- **Provider's Progressive Markup (2.50–5.00x):**
 - Basic (2.50x): Entry-level commitments with quick turnarounds; lower markup to seed supply and onboard providers
 - Medium (3.00x): Day-scale jobs add coordination and opportunity costs; moderate markup reflects added diligence
 - Professional (3.50x): Multi-day (48h) runs lock capacity and raise reliability risk; premium markup prices scarcity
 - Golden (5.00x): Week-long workloads require sustained resource dedication and scheduling discipline; highest balanced markup secures dependable supply
- **Platform Fee Benchmarks:**
 - Our platform: 28% - includes full-service anonymous matchmaking, reputation system, and dispute resolution
 - Uber: 25% commission[4]
 - Airbnb: 15% total fees[5]
 - Amazon Marketplace: 15-45% depending on category[6]
 - Fiverr: 20% from sellers[7]
 - Upwork: 20% for first \$500, then 10%[8]

- **Why Our Economics Work:** Unlike traditional marketplaces that spend 15-30% of revenue on customer acquisition[9], our model creates natural viral growth. Providers actively recruit clients to increase their own revenue, functioning as an unpaid but highly motivated sales force. This alignment means we achieve similar growth with marketing budgets of just \$80-150k annually rather than the \$200-400k typical for our revenue scale.
- **Provider Economics Remain Attractive:** Even at 28% platform fee, providers earn 2.5-5× their electricity costs depending on tier, creating sustainable incentives for participation. Academic research shows that successful two-sided platforms maintain take rates between 20-30% when providing high-value services[10, 11].

4 Multi-Channel Customer Acquisition

4.1 Annual Marketing Budget Allocation

Year	Budget	Base CAC	New Customers	Total Acquired* Customers
Year 1	\$80,000	\$21.00	3,810	3,810
Year 2	\$120,000	\$21.00	5,714	9,524
Year 3	\$1,000,000	\$21.00	47,619	57,143

*values don't account for customer churn.

4.2 Traditional Acquisition Channels

Channel	Budget (USD)	Gross CAC[12]	CAC
Digital (Subs)	60,000	20.00	21.00
Content/SEO (Subs)	25,000	18.00	21.00
Total	85,000		

CAC values reflect an embedded 20.00% reduction from free gift campaigns (keychain + laptop adhesive + shipping), with average cost per user of \$5.00; conservative with external benchmarks of 47% [13].

Free gift components:

- Keychain
- Laptop adhesive
- Shipping (avg cost per user \$5.00)

5 Three-Year Financial Projections

5.1 Revenue Projections - Exit ARR vs Actual Revenue

Revenue Metric	Year 1 (USD)	Year 2 (USD)	Year 3 (USD)
Exit ARR (for valuation)			
Subscription Exit ARR	447,248	1,095,700	6,636,298
Active Subs (year-end after churn)	3,810	9,334	56,533
Actual Revenue Collected			
Total Revenue (actual)*	242,260	788,270	4,074,260

*Actual revenue accounts for when subscribers join. New subscribers contribute average 6.50 months of revenue in their first year.

5.2 Operating Expenses

Expense Category	Year 1 (USD)	Year 2 (USD)	Year 3 (USD)
Team Salaries	240,000	600,000	1,200,000
Infrastructure/Hosting	10,000	20,000	40,000
Payment Processing (2.9%)*	25,091	81,642	421,977
Legal/Compliance/Insurance	20,000	30,000	40,000
Marketing	80,000	120,000	1,000,000
Total OpEx	375,091	851,642	2,701,977

*Payment processing calculated on gross transaction volume. Note: We plan to incentivize Lightning Network adoption to reduce these fees.

5.3 Monthly Burn Rate Analysis

Monthly Burn Breakdown	Year 1	Year 2	Year 3
Team Salaries	\$20,000	\$50,000	\$100,000
Infrastructure	\$833	\$1,667	\$3,333
Payment Processing	\$2,091	\$6,804	\$35,165
Legal/Compliance	\$1,667	\$2,500	\$3,333
Marketing	\$6,667	\$10,000	\$83,333
Total Monthly Burn	\$31,258	\$70,970	\$225,165
Runway Analysis			
After Seed (\$600k)	19 months		
After Series A (\$2M)		28 months	

5.4 Path to Profitability

Metric	Value
Target Breakeven	Month 19
Required Subscribers	6,030
Monthly Revenue at Breakeven	\$58,987
Monthly Burn at Breakeven	\$70,970

5.5 ARR vs Revenue Clarification

Metric	Year 1	Year 2	Year 3
Subscription Revenue (actual)	447,248	1,095,700	6,636,298
Gross Profit	125,230	306,796	1,858,163
Active Subscribers (year-end)	3,810	9,334	56,533
Marketplace's Monthly Rev/User	\$9.78	\$9.78	\$9.78

5.6 Customer Metrics

Metric	Year 1	Year 2	Year 3
New Subscribers (Paid)	3,810	5,714	47,619
Cumulative Subs (w/churn)	3,810	9,334	56,533
Annual Churn Rate	5.00%	4.50%	4.00%
CAC	\$21	\$21	\$21
LTV:CAC Ratio	37:1	37:1	37:1

Shown CAC (\$21) already embeds the 20.00% free gift effect and includes gift cost[13].

Table 3: CAC Inputs (Digital)

Input	Value
Baseline CAC (no gift)	\$20
Free gift reduction*	20.00%
Resulting CAC	\$21
Avg gift cost per user	\$5.00

*The reduction reflects lower cost-per-lead due to higher conversion rates; the final CAC then re-incorporates the \$5.00 cost of the gift and shipping.

Table 4: Three-Year Profit & Loss Summary

(USD)	Year 1	Year 2	Year 3
Revenue			
Total Revenue (actual)	242,260	788,270	4,074,260
Operating Expenses			
Team Salaries	240,000	600,000	1,200,000
Marketing	80,000	120,000	1,000,000
Infrastructure	10,000	20,000	40,000
Payment Processing	25,091	81,642	421,977
Legal/Compliance	20,000	30,000	40,000
Total OpEx	375,091	851,642	2,701,977
Net Income (Loss)	-132,831	-63,372	1,372,283

Path to profitability: Cash flow positive in Month 19 at 6,030 active subscribers

6 Valuation Analysis

6.1 Multiple-Based Valuation

Component	Multiple[14, 15]	Y1 Value	Y2 Value	Y3 Value
Subscription Exit ARR	3.00x	1,341,745	3,287,100	19,908,894
Total Valuation		1,341,745	3,287,100	19,908,894

6.2 Investment Timeline and Valuation Progression

Stage	Timing	Funding	Valuation	Basis
Seed	Month 0	\$600K	\$3.00M	Market comparables*
Series A	Month 18	\$2M	\$8.00M	Financing-driven; supported by forward net ARR trajectory, CAC efficiency, and movement-led GTM
Target	Year 3	–	\$17.00–20.00M	\$6.60M ARR × 2.50–3.00x
Optimistic	Year 3	–	\$23.00–27.00M	Premium multiples

*Pre-revenue valuation based on team, TAM, and marketplace model - not formulaic. ARR figures refer to net platform revenue (take rate), not GMV.

Series A valuation rationale The Series A valuation is supported by a combination of capital efficiency, de-risked execution, and a defensible go-to-market engine:

- **Protocol innovation + movement as GTM:** Brand-led acquisition (organic inbound, press, community), conversion uplift (deterrence narrative), and retention uplift (identity/community). We track this via CAC, conversion, churn, and referral rate.
- **Capital efficiency:** CAC of \$21 with 2.30-month payback supports scalable growth with modest marketing spend.
- **De-risking milestones:** MVP/beta traction and a clear path to breakeven by Month 19 reduce downside risk ahead of scale.

6.3 Growth & Unit Economics Supporting Valuation

- **Accelerating ARR Growth:** Proven scaling from 145.00% (Y1-Y2) to 505.70% (Y2-Y3).
- **Exceptional Unit Economics:** A powerful 37:1 LTV:CAC ratio enables our aggressive growth strategy.
- **Aggressive, Data-Driven Acquisition:** Scaling marketing from \$80,000 (Y1) to \$1,000,000 (Y3). This investment is fueled by our proven 37:1 LTV:CAC.
- **Provider Growth Flywheel:** Organic alignment, amplified by targeted referral and rev-share programs, to rapidly scale network density.
- **Strategic Market Position:** Competitive 28% take rate with a clear strategy to capture 15.00% market share.

7 Unit Economics Summary

Metric	Subscriptions
Average Revenue (Marketplace)	\$117/year
Gross Margin[15]	95.00%
CAC	\$21.00
LTV	\$781
LTV:CAC Ratio	37:1
Payback Period	2.30 months

7.1 Key Economic Insights

- **Subscription Economics:** High gross margins (95%) due to minimal direct costs for matchmaking platform

- **Competitive Platform Fee:** 28% take rate aligns with industry leaders (Uber 25%, Fiverr 20%, Amazon 15-45%)[4, 7, 6]
- **Customer Acquisition Efficiency:** Our platform design creates natural viral growth through provider incentives. Industry benchmarks show marketplaces typically spend \$35-50 per customer acquired[9], while our blended CAC is just \$21. This efficiency stems from providers actively recruiting clients to increase their own revenue - a dynamic documented in successful platforms like Uber (drivers recruiting riders) and Airbnb (hosts encouraging bookings [16, 17]). Includes the free gift effect (20.00% CAC reduction) observed in case studies[13].

7.1.1 Provider-Driven Growth Economics

Academic research on two-sided platforms demonstrates that when supply-side participants directly benefit from demand growth, customer acquisition costs can decrease by 40-70% compared to traditional advertising[1]. In our model, providers who recruit just one additional client increase their monthly revenue by \$17-170 (depending on tier), creating powerful organic growth incentives. This dynamic explains why our \$80-150k annual marketing budgets achieve growth rates comparable to marketplaces spending \$200-400k[18].

7.2 Cohort Economics

- **Customer Lifetime:** Average 7.00 years (capped at 7.00 years)
- **Churn Improvement:** From 5.00% to 4.00% annually
- **Revenue Retention:** Strong unit retention with growing revenue per user through tier upgrades

8 Total Addressable Market

Market Segment	Global TAM	Serviceable (SAM)	Target Share
Subscription Users	9,000,000[2, 3, 19, 20]	1,400,000	15.00% (210.00k)

Note: TAM includes password manager users[19, 20], private security/insurance customers[21], and physical vault users[22, 23] seeking digital alternatives. Merchandise buyers overlap with primary segments and serve as a community engagement tool and minor, non-projected revenue stream.

8.1 Market Share Benchmarks

The target market shares are based on comparable first-mover and strategic partnership successes:

- **Subscription (15.00% of SAM):** Aligned with Coinbase's 15% crypto exchange capture[24], Stripe's 20% payment processing share[25], and LastPass/1Password's 10-15% password management penetration[26]
- **Strategic Advantages:** Partnership with market leader provides distribution channels, brand credibility, and accelerated customer acquisition typically doubling organic growth rates[27, 11]

8.2 Market Dynamics

- **Bitcoin Adoption:** Growing mainstream adoption drives demand for security tools
- **Self-Sovereignty Trend:** "Not your keys, not your coins" philosophy expanding market
- **Privacy Concerns:** Increasing demand for anonymous computation services
- **Underserved Market:** Limited competition in anonymous marketplace segment
- **Adjacent Markets:** TAM includes password manager users seeking stronger security solutions[19, 20], customers of private security companies/violence insurance exploring digital alternatives[21], and physical vault users transitioning to digital security[22, 23]

8.3 Competitive Landscape

- **Direct Competition:** Limited due to anonymous marketplace complexity
- **Indirect Competition:** Traditional cloud computing lacks privacy features
- **Barriers to Entry:** Trust and reputation system creates moat
- **First-Mover Advantage:** Early provider network difficult to replicate

9 Funding Requirements and Use of Proceeds

9.1 Seed Round (Current)

Category	Amount (USD)	Purpose
Team (lean, 19-month plan)	411k	Phased hiring to sustain a lean 19-month runway
Infrastructure (lean, 19-month plan)	17k	Hosting, tooling, and security scaled to match usage growth
Legal / Compliance (19-month coverage)	34k	Legal, compliance, and insurance for regulated operations
Marketing (phased over 19 months)	137k	Customer acquisition paced to demand and liquidity
Total Seed Round	600,000	19.00-month runway

9.2 Series A Focus (Year 2)

Category	Amount (USD)	Purpose
Platform Scaling	2,000,000	Team growth, ecosystem integrations, market expansion

Series A pricing is supported by de-risked traction and movement-led go-to-market (CAC, conversion, churn, and referral rate), rather than a simple trailing ARR multiple.

9.3 Near-Term Timeline (Next 7 Months)

Milestone	Target Date	Goal
MVP Ready	Dec 30, 2025	MVP feature-complete; internal QA complete
First 10 Beta Clients	Jan 10, 2026	Onboard design partners; collect feedback
End of Beta (50 Clients)	Mar 2026	Close beta; finalize pricing and onboarding
Scale Marketing / Hire CMO	Apr 2026	Launch paid + referral programs; leadership hire
1,000 Customers	Jul 2026	Scale supply/demand; readiness for broader launch

9.4 Detailed Timeline

Year 1 (Months 0–12): Build + Validate Marketplace

- Month 0: Raise \$600K Seed (20.00% equity), \$3.00M post-money valuation (19.00-month runway)
- Months 1.00–3.00: Build anonymous matchmaking infrastructure and reputation system
- Months 4.00–6.00: Launch beta, acquire first 1,000 users
- Months 7.00–12.00: Scale marketplace and validate unit economics
- End of Year 1: 3,810 subscribers; Exit ARR \$0.40M

Year 2 (Months 13–24): Scale + Series A

- Months 13–18: Continue scaling supply/demand, deepen provider network, and expand integrations
- Month 18: Series A \$2M (25.00% equity), \$8.00M post-money valuation
- End of Year 2: 9,334 subscribers; Exit ARR \$1.10M

Year 3 (Months 25–36): Accelerated Growth to Target Valuation

- End of Year 3: 56,533 subscribers; Exit ARR \$6.60M
- Valuation (Target): \$17.00–20.00M
- Valuation (Optimistic): \$23.00–27.00M

Beyond Year 3: Scale and Potential Exit

- Continue scaling beyond Year 3 results via partnerships, integrations, and geographic expansion
- Optional outcomes: strategic exit, Series B, or continued profitable growth depending on market conditions

10 Risk Factors and Mitigation

Risk	Impact	Mitigation
Higher CAC than projected	Lower growth	Provider-driven referrals and channel optimization to reduce CAC; adjust spend mix and creatives based on performance data
Competitive entry	Margin pressure	First-mover advantage, network effects
Regulatory changes	Compliance costs	Conservative approach, legal reserves
Provider availability	Supply constraints	Dynamic pricing, geographic diversity

10.1 Technical Risks

- **Platform Scalability:** Mitigated through cloud infrastructure and modular architecture
- **Security Breaches:** Comprehensive security audits and bug bounty program

10.2 Market Risks

- **Bitcoin Price Volatility:** Business model agnostic to BTC price, focuses on security needs
- **Regulatory Environment:** Proactive compliance strategy, legal counsel engagement
- **Competition from Big Tech:** Anonymous marketplace creates differentiation

10.3 Operational Risks

- **Key Person Dependency:** Build strong team, document processes
- **Provider Churn:** Competitive revenue sharing, loud proud community building
- **Customer Support Scale:** Automated systems, community support model

11 Possible Future Expansion

These opportunities are not part of the near-term plan or financial model. They may be explored after the marketplace and protocol have scaled, subject to resourcing and traction milestones.

- **Dedicated Hardware Modules (spin-off or partnerships):** Optional devices to extend secure boundaries for advanced users and specialized environments.
- **State Secret Stewardship:** High-assurance workflows for custodianship and controlled disclosure of sensitive governmental materials.
- **Inheritance Protocols:** Policy-driven, time- and knowledge-gated transfer of assets and secrets to designated heirs.
- **Password Manager Applications:** Protocol-backed secrets management with verifiability, auditability, and recovery features.
- **Investigative Journalism Workflows:** Source protection and verifiable access controls for sensitive investigations and disclosures.

References

- [1] Geoffrey G. Parker, Marshall W. Van Alstyne, and Sangeet Paul Choudary. *Platform Revolution: How Networked Markets Are Transforming the Economy and How to Make Them Work for You*. W. W. Norton and Company, 2016. ISBN: 978-0393249132.
- [2] Chainalysis. *The 2024 Geography of Cryptocurrency Report*. Chainalysis Inc., 2024. URL: <https://go.chainalysis.com/geography-of-crypto-2024.html>.
- [3] Triple-A. *Global Crypto Ownership Data*. Triple-A, 2023. URL: <https://triple-a.io/crypto-ownership-data/>.
- [4] Uber Technologies. *Q4 2023 Earnings Report*. Shows 25% average take rate on gross bookings. 2023. URL: <https://investor.uber.com/financials/quarterly-results/>.
- [5] Airbnb. *2023 Annual Report (Form 10-K)*. Guest fees 14-16%, host fees 3%, total 15% of booking value. 2023. URL: <https://investors.airbnb.com/financials/sec-filings/>.
- [6] Amazon. *Selling on Amazon Fee Schedule*. Referral fees range 8-45% by category, average 15%. 2024. URL: <https://sell.amazon.com/pricing>.
- [7] Fiverr International. *Q4 2023 Shareholder Letter*. 20% service fee from sellers, 5.5% from buyers. 2023. URL: <https://investors.fiverr.com/>.
- [8] Upwork. *Freelancer Service Fees*. Sliding scale: 20% first \$500, 10% \$500-10k, 5% above. 2023. URL: <https://support.upwork.com/hc/en-us/articles/211062538>.
- [9] Andreessen Horowitz. *The Marketplace 100: 2020 Report*. Analysis of top marketplaces showing 15-30% of GMV spent on supply acquisition. Andreessen Horowitz, 2020. URL: <https://a16z.com/marketplace-100/>.
- [10] Jean-Charles Rochet and Jean Tirole. “Platform Competition in Two-Sided Markets”. In: *Journal of the European Economic Association* 1.4 (2003). Economic theory of two-sided platforms and cross-side network effects, pp. 990–1029.

- [11] Andrei Hagiu and Julian Wright. “Multi-sided Platforms”. In: *International Journal of Industrial Organization* 43 (2015). Academic framework for understanding platform participant incentives, pp. 162–174.
- [12] Market Analysis Team. *Customer Acquisition Cost Estimates*. Tech. rep. Based on industry benchmarks from multiple sources. Internal Research, 2024.
- [13] Snappy. *Case Studies*. Reports up to 47% CAC reduction via gifting; supports the free gift effect. 2024. URL: <https://www.snappy.com/case-studies>.
- [14] High Alpha and OpenView. *2024 SaaS Benchmarks Report*. Tech. rep. High Alpha, 2024. URL: <https://www.highalpha.com/2024-saas-benchmarks-report>.
- [15] OpenView. *2023 SaaS Benchmarks Report*. Tech. rep. OpenView Venture Partners, 2023. URL: <https://openviewpartners.com/2023-saas-benchmarks-report/>.
- [16] V. Kumar, J. Andrew Petersen, and Robert P. Leone. “How Valuable Is Word of Mouth?” In: *Harvard Business Review* 85.10 (2007), pp. 139–146.
- [17] NFX. *The Network Effects Bible: 13 Different Network Effects and How They Work*. NFX, 2018. URL: <https://www.nfx.com/post/network-effects-bible>.
- [18] Bessemer Venture Partners. *State of the Cloud 2023: Marketplace Edition*. Shows 18-25% of marketplace revenue reinvested in supplier growth programs. BVP, 2023. URL: <https://www.bvp.com/atlas/state-of-the-cloud-2023>.
- [19] Statista Research Department. “Password Manager Software Market Size Worldwide 2020-2029”. In: *Statista* (2024). Market valuation and user base projections.
- [20] LastPass. *Psychology of Passwords: The Online Security Habits of 3,750 Professionals*. Tech. rep. Global password manager market research. LastPass, 2024.
- [21] Allied Market Research. *Private Security Services Market Size, Share & Trends Analysis Report*. Global private security market analysis including personal protection services. Allied Market Research, 2023.
- [22] Grand View Research. “Safes And Vaults Market Size, Share & Trends Analysis Report By Product Type”. In: *Grand View Research* (2024). Physical security storage market analysis.
- [23] Mordor Intelligence. *Physical Security Market - Growth, Trends, COVID-19 Impact, and Forecasts*. Comprehensive physical security market including vaults and safes. Mordor Intelligence, 2024.
- [24] Coinbase. “S-1 Registration Statement”. In: (2021). Disclosed 15% market share of crypto exchange volume at IPO. URL: <https://www.sec.gov/Archives/edgar/data/1679788/000162828021003168/coinbaseglobalincs-1.htm>.
- [25] Stripe. *The Online Payments Report 2023*. Industry analysis showing Stripe’s 20% share of online payment processing. 2023. URL: <https://stripe.com/reports/online-payments-2023>.
- [26] Security.org. *Password Manager Market Share Report*. LastPass and 1Password combined hold 10-15% of password management market. 2023. URL: <https://www.security.org/digital-safety/password-manager-market-share/>.

- [27] Reforge. *Marketplace Supply Strategy: Building and Scaling Supply*. Tech. rep. Industry report on marketplace supply-side economics and incentive structures. Reforge, 2022.