Whiz Freelance Platform

NUS FINTECH BLOCKCHAIN PROJECT

TEAM 6C

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1. Executive Summary

Today, we see a trend of an increasing number of people favoring freelance work (Younger, 2019). Certainly, the preference of a dynamic working environment is gaining popularity in developed societies. But more importantly, it has been creating many opportunities for individuals in developing economies, where we have seen a growth of usage of freelance platforms by over 30% (Djurovic, 2021). This trend has been further strengthened by the impact of COVID-19, as we see many organizations turning to virtual workspace innovation and on-demand talent to transform their Future of Work and to increase labour-force flexibility (Fuller, 2020).

By engaging in an iterative Design Thinking process, as well as through interviews and surveys that were sent to 2500 SMEs, we were able to establish user personas, customer journey maps, and uncover important pain points within the freelance job market. The current nature of freelance work arrangements poses several challenges to both freelancers (sellers) and businesses choosing to engage on-demand workers (buyers). Our surveys indicate that sellers are finding it difficult to get enough opportunities to sustain their income, and that they are often at risk of payment defaults and unclear contractual terms. On the other hand, buyers experience difficulties in evaluating the competencies of sellers and in verifying their skills and portfolio. While existing online freelance marketplaces attempt to meet these needs, they impose hefty commission fees and costs. This poses issues to smaller firms who are trying to maintain a nimbler workforce with tight budgets and threatens the sustainability of income for freelancers.

Our objective is hence to solve the problems of high fees, credibility, and reliability while creating an environment that would help the freelance economy flourish. Our solution involves building an online freelance marketplace that leverages on the power of decentralized blockchains to implement tamper-proof smart contracts. Escrows and payments are executed by smart contracts using USDC stable coin to achieve both reliability and disintermediation while mitigating possible fluctuations in cryptocurrency prices. As a result, we can pass the cost savings down to our sellers by providing our base platform at zero cost and operating our business using a freemium profit model. Additionally, we shall be issuing a native token (WHIZ) using the ERC-20 token standard to incentivise users to continually engage and have a stake in the growth of the platform. Through the amalgamation of a modern web technology stack and the adoption of an open and public blockchain such as Polygon, we hope to expand our reach and make freelance work accessible to as many people as possible, regardless of their country's economic and banking situation.

Through competitive analyses and SWOT studies conducted against competitors such as Fiverr, Freelancer and Upwork, we have identified key growth opportunities for Whiz by focusing on the small and medium business (SMBs) segment, high growth areas, and high value tech-related jobs within the Asia Pacific Region. Within the next 5 years, our revenue will be derived mainly through the sale of premium features and data monetisation. The delocalized, online nature of our platform will enable us to have a global reach, and we project the number of users to be 3 million within 5 years. This translates into a potential revenue figure of $150M. One shared key revenue driver of both revenue streams is the active user count, which in turn relies on brand awareness and reputation. The budgetary requirement forecast is approximately $1.9M in year 1 and $90M by year 5.

2. Introduction

80% of major US companies are planning to switch to employing freelance labour. 40% of companies see freelance workers taking a more significant part of their workforce in the coming years. Freelance economy income statistics show wages and participation have grown by 33% in 2020. The global freelance workforce has earned $1.7 trillion — a significant increase from $1.2 trillion before the pandemic in 2019 (Djurovic, 2021). Closer to home, according to the Singapore Ministry of Manpower (MOM), the number of freelancers in Singapore is about 228,200 in 2020, that is ~10% of total workforce, an 8.2% increase from 2019. 59% of these freelancers obtain work through online channels (MOM, 2020).

2.1 Background: Problem Analysis

With the increasing trend of people turning to freelance work, there is a challenge for freelancers to find suitable opportunities to sustain their income. Our survey respondents have indicated that they have relied largely on word-of-mouth referrals and operate mostly within the local community. The lack of international exposure and access to a stream of regular gigs have stifled their ability to sustain their freelance career. Additionally, they face the risks of defaults, non-payments and unreasonable expectations due to unclear contractual terms. While some have turned to using existing online freelance marketplaces, for many, the high commission fees of 20% to 30% encroaches on the appeal and viability of their freelance endeavours.

Businesses today find themselves in a state of hyper competition (Mahto, 2016). Increasingly, firms are being required to remain nimble and adapt quickly to changes. As such, companies have indicated that it has become a challenge for them to find talent with well qualified skills on short notice. In addition, hirers have also expressed the difficulty of verifying the skills of freelancers and the past projects that they actually worked on. In general, it is hard to find quality references tied to actual work done. Traditionally, companies have relied on hiring agencies and online platforms to source for talent. However, these services often charge hefty commission fees. While such terms may be palatable to larger organizations, it could disadvantage SMEs and smaller outfits from competing for the same talent pool.

2.2 Problem Statement

How do we solve the problems of high fees, credibility, and reliability in the freelance job platform?

2.3 As-Is To-Be State of Freelance Platform

This table summarizes the As-Is and To-Be state of a freelance job market platform and the proposed solutions. Eight hygiene (absolutely necessary) factors have been identified and prioritized with five additional delight factors for future platform feature enhancements.

	Hg/D	Current Platform	What would be ideal	How to change
H F	Hg	High cost for employers	Easy sourcing of freelancers for ad-hoc projects	Eliminate middleman costs by allowing employers to connect directly with freelancers
H	Hg	Insufficient freelancer profile info	Verifiable track records of past work Reviews/References/Portfolio	Make past projects trackable on the blockchain and give seller space to showcase their portfolio
F	Hg	Unethical employers. Lack of fully and open honest reviews	Verifiable track records, ways to verify the reputation of a buyer	Immutable transaction records on the blockchain. Reviews must be tied to a completed work
F	Hg	Unclear job requirement specifications	Scope of work and compensation is clearly stated and cannot be changed	Scope of work is recorded on the blockchain and enforced via smart contracts
F	Hg	High admin cost for cross-border payments to global employees	Makes international payment less complex and costly, allowing for timely and efficient cross-border	Fund escrow using smart contracts, cross border payments using cryptocurrencies (stable coins)

			payments to global employees without going through banks	
F	Hg	Delays in payment	Payment is released & transferred immediately upon verification of work done	Smart contract with escrow
H F	Hg	Unable to withdraw funds due to verification issues e.g., name changes after setup	Identity verification to be robust and yet adaptable	Users are identified by unique blockchain wallet, not by 'names' during payments.
H F	Hg	Possible instances where price is changed and not agreed upon	Prices are set and additions are verified by both parties before work is begun	Price is encoded in smart contract, as is with other mutually agreed upon terms for an assignment.
H	D	Challenging to verifying the academic credentials of freelancer	Verify candidate credentials in a highly secure way and reduce chances of credentials being altered or faked	Credentials module integrated with known/verified educational institutions.
H F	D/Hg	For assignments >6months, Freelancer has already done quality or partial work but not fully accepted by hirers	Milestone payment when a certain portion of the work is done for >6mths project	Have function where milestone-based payments are possible to be split into multiple smart contracts
H F	D	Conflict resolution is not consistent and up to the platform staff to decide	A fair arbitration based on multiple people to check and prevent bias	Have a voting/arbitration system in place where arbitrators can step in to help mediate outcomes
F	D	Difficult for freelancers to build a steady income/career	Freelancers can make a livelihood with our solution	Bonus feature to allow hirers to "favorite" certain freelancers.
F	D	Lack of Medical & Annuity Benefits	Affordable insurance offering tailored for Freelancer	Design Insurance group buying for Freelancer

Legend:
H: Hirer – Buyer
F: Freelancer – Seller
Hg: Hygiene Factor
D: Delight Factor

3. Industry Analysis

3.1 Competitor Analysis: Financial Statements

We reviewed and summarized the financial statements of 3 of global competitors – Fiverr, Freelancer, Upwork in the table below. Among the 3 companies, Fiverr achieved the highest YoY growth of 77% in 2020. Upwork with the largest revenue of $373M had 24% YoY growth in 2020, while Freelancer was flat at around $48M. Their commission fees range from 20-30% of freelancer assignment values.

Companies	Fiverr	Freelancer	Upwork
Year Started	1 Feb 2010	2009	2015 (1999 as Elance)
HQ	Israel	Sydney, Australia	California USA
Listing	NYSE: FVRR (IPO 2019)	ASX: FLN; OTCQX: FLNCF	NASDAQ: UPWK (IPO 2018)
Revenue	$190M 2020 | 77% YoY	$47.7M + $2.8m | Flat YoY	$373M 2020 | 24% YoY
Gross Margin	84%	83%	72%
Adjusted EBITDA Margin	5% (Turned positive in 2020)	-0.4%	3.75%
#Employees	545	470	539
#User Base	4M active buyers	54m registered users worldwide 20m job posted	18M registered freelancers 5M registered buyers
Target Market	SMB	Individual users Enterprises	Start-ups
Products	Core: Marketplace Additional: Fiverr Business, Fiverr Pro, Fiverr Studios, Fiverr Logo Maker, Learn, AND CO, ClearVoice, Promoted Gigs	Core: Projects, Contests, Freelancer Enterprise Additional: Technical Co-Pilot, Recruiter, various add-ons (Extras: Preferred Freelancer Program – requires paid membership; Showcase; Community)	Core: Talent Marketplace, Project Catalog, Talent Scout, Enterprise Suite Additional: Payroll Services, Direct Contracts (no account + escrow)
Pricing	20% of seller transaction value	Hirer (Buyer): Basic post is free, 3% for Projects; also imposed if hirer pays freelancer extra. Free for Contest. Freelancer (Seller): 10% for accepting Projects/ Contests, 20% if hired. 15% total for Preferred Freelancer. 10+ types of upgrades - $0-$60. 5 Tiers Memberships - $0-$99.95	Hirer (Buyer): Free Basic and $49.99/month plus 3% processing fee Freelancer (Seller): Freelance Plus for $14.99/month 20% for the first $500 bill to buyer 10% for total billings between $500.01 and $10,000. 5% for total billings over $10,000
Net Promotor Score (NPS)	Buyer NPS: 66 Seller NPS: 79	NA	NPS: 60

3.2 Competitor Analysis: Features Comparison

Key features comparison of Whiz's solutions against 3 competitors:

Features	Fiverr	Freelancer	Upwork	Whiz
Technology	• Web frontend • Centralized Database • PayPal Payments	• Web frontend • Centralized Database • PayPal and Credit Card	• Web frontend • Centralized Database • PayPal, Payoneer, Wire Transfers	• Web frontend • Blockchain, Database Hybrid • Cryptocurrency Payments
Buyer:				
Register	Yes, limited info	Yes	Yes	Yes
JD Template	No	No	Needs Analysis (Example prompts)	Yes
SEA countries	Limited	Yes	Yes	Yes
China	No	Yes	Yes	Yes
Top Rated Definition	Yes, with stated criteria	No	Yes	Yes, specify criteria
Review Criteria	Buyers can review Sellers once job is completed	Upon completion	Public and Private reviews	Buyers & Sellers review after gig
Terms of Use	Yes	Yes	Yes	Yes
Payment Mode	$3 per bank transfer, credit card, PayPal	Debit/credit card, Amex, JCB, PayPal, ePayments	Credit card, PayPal, Bank Account (ACH)	Cryptocurrency
Milestone Payment	No	Yes	Yes	Yes Phase 2

Seller:				
Register	Yes	Yes	Yes	Yes
European countries	Yes	Yes	Yes	Yes
Americas	Yes	Yes	Yes	Yes
Top Rated	Yes	No	Yes	Yes
Review	Yes	Yes	Yes	Yes
Past Work Verifications	Yes	Optional	Yes	Yes BC Smart Contracts
Work Tracking	No	For hourly projects	Work Diary for freelancer to log their time & bill on hourly contracts	No

3.2 SWOT Analysis

In the SWOT Analysis against 3 competitors, the opportunities identified for Whiz are putting focus in the small and medium enterprises (SMEs) segment in high growth Asia Pacific Region, recruiting buyers and high value Tech-related jobs.

Unlike other platforms, Whiz is powered by smart contracts running on the blockchain. This adds a level of fault tolerance and tamper proofing to the platform. One of the most important features of Whiz is that it does not charge a commission. It contains technology needed to protect sellers' work and buyers' money.

Company	Fiverr	Freelancer	Upwork	Whiz
Strength	Largest marketplace for small services Create gigs for as low as $5 – money-making opportunities even if one doesn't know coding/design Offers free 10 bids per day 55% of Revenue from Existing Buyers/45% from New Buyers Additional revenue streams: >E-learning platform w proprietary course content >Subscription revenue for freelancer biz mgmt software >Subscription based content marketing platform targeting medium to large businesses >CPC-based advertising product allowing sellers to promote themselves on Fiverr	Established name Easy-to-remember domain name Massive database Many enterprises customers/ partners High value assignments Useful upgrades More categories of work than competitors Clean website interface Site supports many languages Positive employee reviews according to Glassdoor	High Margins, charges a premium compared to its competitors providing resources to not only thwart competitive pressures but also to invest into research and development. garnered a wide array of patents and copyrights through innovation and buying those rights from the creators.	Based in Asia Pacific high growth market Use Blockchain to develop a job market platform providing ease of access to diverse pool of global talents & specialized skills in niche areas across industries Verifiable past works and reviews Transparent dispute resolution Sustainably run with 0% fees Secured cross-border crypto-payment
Weakness	Dilute focus Charges 20% of transaction value $3 per bank transfer against a $5 or small value assignment	Non-payment, no customer service when hirers have flaky behaviour Fresh freelancers with limited skills find it hard to get assignments (risk of attrition) Offers free 6 bids per month	Customer Dissatisfaction – Even though the demand for products have not gone down but there is a simmering sense of dissatisfaction among the customers	Time to build the Network Collective action challenges Steep learning curve
Opportunities	The Future of Work Focus on SMB/ In Europe Expand geo footprint Expand Gig catalogue Move up-market for buyers & sellers Bring new buyers onto platform Tech Innovation	High value, long-term assignments Established Freelancer who have proven track record Strong partnerships with enterprises Upskilling courses	The Future of Work Invest in emerging trends research Larger number of young adults turning to freelancing	In high growth market (APJ) The Future of Work **Focus on recruiting buyers** **Global pools of credible & qualified freelancers** SME Focus Primary Focus on high value Tech-related jobs Small/Mid-size assignments
Threats	Low Buyer NPS of 66	Lose out to competitors like Fiverr for shorter-term assignments	Threats of New Entrants due to reducing costs & increasing efficiencies Low NPS of 60	Incumbents Start-up cost

4. Design & Prototype

4.1 Market Survey Methodology

To understand companies' staffing requirements in the Digital Economy, we invited 2,500+ firms to participate in a survey as buyers and 30,000 freelancers to complete a different survey as sellers. The survey form can be found in Appendix A.

(Selenium with Python, 2021) was used as a web scrapping tool to collect email addresses to send out the survey on Google Forms. The code for the web scrapping was written in Python and is available at https://github.com/Bright3stday/team6cResources.

The (Singapore International Chamber of Commerce Members Directory, 2021) and (Times Business Directory Company Listings, 2021) were chosen as databases for the web scrapping and the links to the surveys were sent out via email.

Video interviews were conducted with 2 freelancers and 2 companies who frequently uses freelancers for qualitative analysis. Their responses in the interview were also recorded in the Google Forms. They were sourced from the web-scrapped database and personal contacts of our team members.

4.2 Survey Results Summary
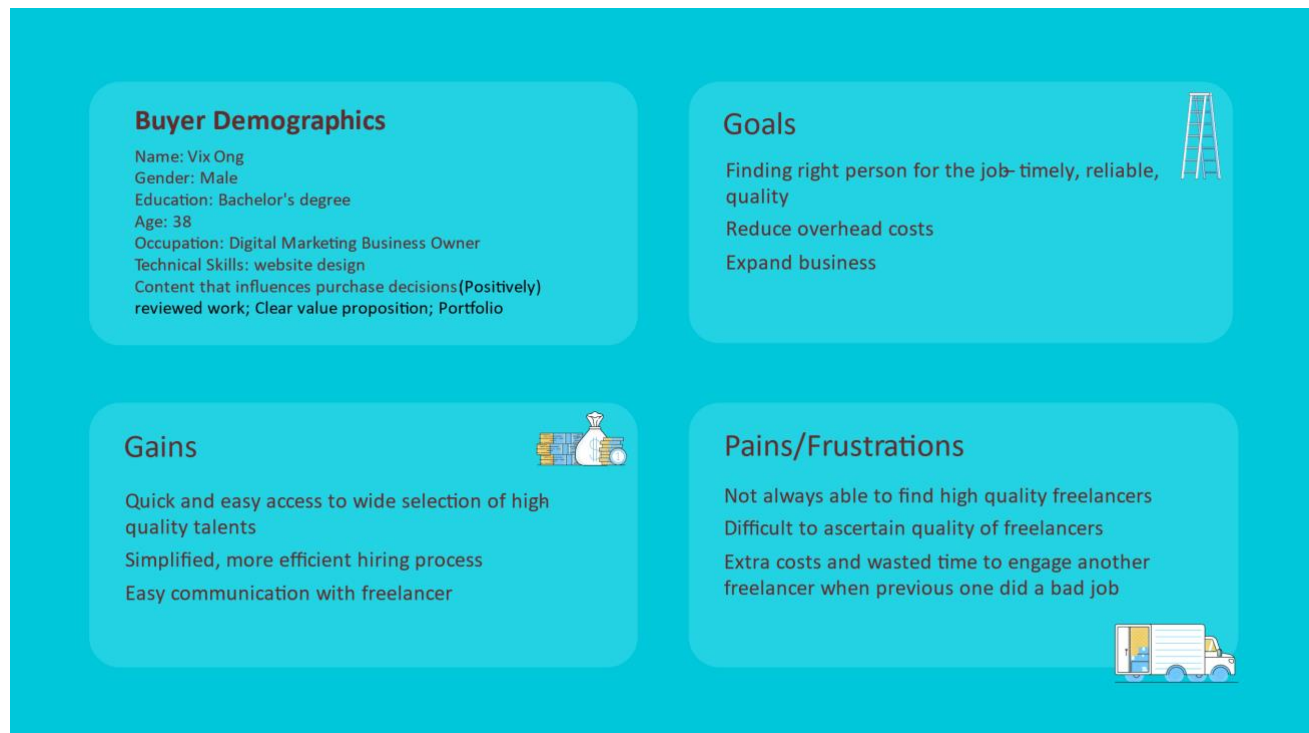
4.2.1 Buyer Survey Summary

Buyer Survey Summary: 62 responses
39% agree jobs post COVID-19 are not connected to any city or country
63% hire freelancers from Singapore, ~36% from rest of ASEAN countries (22% MY), 12% from China, 12% from India
18% companies want 100% of resources on full-time payroll
82% consider keeping some % of resources not on full-time payroll to provide skills or labour-force flexibility in organisation and avoid increase in fixed cost, of which:
-     23% considers keeping 5%-10% resources off full-time payroll
-     23% considers keeping 11%-20% resources off full-time payroll
-     8.1% considers keeping 21%-30% resources off full-time payroll
-     8.1% considers keeping 31%-40% resources off full-time payroll
-     14.5% wants to keep >50% resources off full-time payroll
66% acquire skills in niche area to complement existing workforce by word of mouth or personal contacts
68% require talent with well qualified skills on short notice
Top 3 Skills Required – App Developers 29%, Digital Marketer 25%, Graphic Designer 20%, Logistics Personnel 20%
86% value quality of references & recommendations, 62% portfolio, 46% references #
71% have not used online freelance hiring platforms before
Top 3 Challenges faced in engaging freelancers on freelance job platform
-     32% insufficient reliable information of freelancer profile
-     31% job-skillset mismatch
-     19% high fees
36% thinks the freelancers failed to showcase in their skillsets in relation to the job postings
61.3% would consider hiring more freelancers if the process is seamless and easier to manage
10.2% are open to using cryptocurrency (stablecoin) or government issued Central Bank Digital Currency (CBDC) to make payment

4.2.2 Seller Survey Summary

Seller Survey Summary: 8 responses
63% of respondents are aged 15-29, 37% aged 30-39
87% would look for freelance opportunities outside of Singapore
Top 3 considerations when searching for a freelance opportunity:
-     88% type of work
-     62% well defined job scope
-     57% transparency in rates & 43% payment
50% have not used online freelance hiring platforms before
Current Favourite Freelance Job Platform: Fiverr 33% | Freelancer 17% | Upwork 17% | Toptal 17%
Top 3 features you would like to see on a freelancer platform:
-     88% want zero commission fees on all jobs
-     62% want to share their portfolio
-     50% want to earn other benefits on the side as a validator
-     37% want bonus VIP features to differentiate their profile
75% would consider starting a business if they could easily and quickly hire talent to execute on new projects at affordable rates
Top 3 Content which would be useful on the platform
-     63% hot jobs & 50% job market trend
-     50% high-rated work
-     38% popular courses
Freelancer work of respondent: 43% Photographer, 14% Digital Marketer, 14% Graphic Designer, 14% Copywriter
75% are open to receiving cryptocurrency (stable coin) or Central Bank Digital Currency (CBDC) as payment in the future

4.3 Personas

4.3.1 Buyer (Hirer) Persona

Buyer Demographics

Name: Vix Ong
Gender: Male
Education: Bachelor's degree
Age: 38
Occupation: Digital Marketing Business Owner
Technical Skills: website design
Content that influences purchase decisions (Positively) reviewed work; Clear value proposition; Portfolio

Goals

Finding right person for the job- timely, reliable, quality

Reduce overhead costs

Expand business

Gains

Quick and easy access to wide selection of high quality talents

Simplified, more efficient hiring process

Easy communication with freelancer

Pains/Frustrations

Not always able to find high quality freelancers

Difficult to ascertain quality of freelancers

Extra costs and wasted time to engage another freelancer when previous one did a bad job

4.3.2 Seller (Freelancer) Persona

Seller Demographics

Name: Pattie Tan
Gender: Female
Education: Bachelor's degree
Age: 28
Occupation: Freelancer
Technical Skills: Graphic design, photography, videography, copywriting
Content that influences purchase decisions: Hot jobs, Market trends; High-rated works; Popular courses

Goals

Flexible lifestyle

Independence, freedom of being own boss- selection of assignments, working hours, pace, creative direction, environment

Able to monetize personal interest

Supplementary income stream

Gains

Consistent inflow of gigs
Choice & exposure to different industries & work
Opportunities for overseas projects
Portfolio showcase
Info on popular jobs & market trend
Resources for upskilling

Pains/Frustrations

High commission rates
Unclear job requirements
"Shifting goal posts"
Delays in / no payment
Inconsistent income stream

4.4 Customer Journey Map

4.4.1 Buyer (Hirer) Journey Map

Buyer Actions (1/2)	Choosing a platform	Login/Register	Get started with Platform	List Job Requirements	Look through freelancers' profiles	Look for terms of use
Thoughts	Quality of pool of freelancers? Turnaround time fast? Fees? Reliability?	Where and how to register as a buyer?	Seems like it has many features, where do I start? I don't know what I want yet, prefer less clicks	Is there a template for me to make edits to fit my job requirements?	Who are the top-rated freelancers? Which country are they from? Can they speak English, write Chinese?	Does the platform ensure payment is made only when the job is completed?
Pain Points	Not very assured about whether the platform can deliver the solution to my business needs.	Seems like only register as a seller	Can't find anything to guide employers? Seems difficult to filter content	Seems like I must write from scratch. What are the technical skills or tools required for my job? How do I provide clear job description?	There are so many candidates but none from Singapore. How reliable are the reviews? How does one become top rated?	Can't find terms of use for employer.
Opportunities	How might we position our platform as the best choice amongst competitors (most likely to get good jobs done here)?	How might we allow hirer to register as a buyer to include details/profile of company?	How might we help the employer get started?	How might we provide standard job template with options to select?	How might we provide country selection to include SEA countries and China? How might we have a consistent definition for top rated seller? What are the conditions met before a review is written?	How might we clearly define the terms of use for each party? How might we help buyer if there is a dispute?
Solutions	Quality freelancer with verifiable, traceable portfolio, reviews. More tech-savvy modern talent who use BC.	Allow users to have 2 profiles, buyer/seller modes.	Short tutorial / onboarding screen upon registration or first use of each mode.	Provide common standard templates as an option when creating gig. Option to allow users to submit templates for incentive.	Country and language specified in registration and displayed on profile. Reviews only between buyer and seller.	Terms clearly stated on the registration page.

Buyer Actions (2/2)	Look for other platform benefits	Job is incomplete	Look for favorite freelancer	Job is well done	Make Payment
Thoughts	What are the other benefits of using the platform?	This is not how I wanted my website to look like	I want to use the same freelancer from the last job	This freelancer did a really good job, he exceeded my expectations	Use stable coin to pay freelancer? This is all new to me. What is the benefit to me?
Pain Points	It seems cumbersome to use the platform, easier to just speak to freelancer about my requirements.	What should I do? No time to rework, just pay the freelancer	It is troublesome to deal on platform to go through all the steps. Will he give me a better price if I deal with him off platform?	Freelancer asked me to write a recommendation, what are the key words describing a job well done? What is the difference between 4 or 5 stars?	How do I buy stable coin? Who do I buy from?
Opportunities	How do we incentivise buyer to use different features of the platform?	How might we help buyer with dispute?	How do we incentivise buyer to stay on platform?	How do we standardize the grading system? For consistence, how do we help buyer provide objective evaluation? – Well done vs Exceeds expectation; Good vs Proactive in giving options	How might we facilitate crypto payment?
Solutions	Major perks: ease of access to many global talents, transparent dispute resolution, verifiable past works, reviews, zero fees. Communication off platform is fine, but deals settle online.	Dispute resolution center allows validators to vote on an outcome and whether to pay or to refund. Each side can elaborate on their viewpoint. (Phase 2)	Accountability of using our platform/smart contracts for peace of mind. Zero platform fees, fast cross-border crypto payments. Avoid hassle of banking systems, credit card, F/X fees.	A standardized 5-star rating system will be provided. Can be an average of 3 categories "Communication, Quality, Timeliness". Also, a free text field will be provided for any further elaborations.	Once the job is done, seller marks as delivered, pending buyer acceptance. Funds are released to seller once buyer signs as done.

4.4.2 Seller (Freelancer) Journey Map

Seller Actions (1/2)	Choose a platform	Login/Register	Upload/list Portfolio or Projects Done	Update Profile Page
Thoughts	Fees? Reliability? Quality of interface? No. of jobs? Quality of support?	Many fields to fill up	How to best showcase my work	What information should I include to add value to my profile?
Pain Points	Platform fees are high.	Time consuming	Not sure what customers might be looking for	What is too much or too little information
Opportunities	How might we position our platform as the best choice amongst competitors (most likely to find a living here)?	How might we make the sign-up process fast and simple?	How might we communicate what potential customers want to see to the freelancers?	How might we ask for relevant information that customers can easily peruse
Solutions	Provide streamlined intuitive UX, zero fees, good support and dispute resolution, no default risks with smart contracts.	Link to Singpass MyInfo for Singapore users, and option to upload valid govt ID for overseas users. Ask for essential information at the start and allow more info to be added later.	Link past projects / portfolios on other platforms like LinkedIn, Upwork, Fiverr.	Possibly have a % rating based on how much profile info they have filled up (like LinkedIn).

Seller Actions (2/2)	Apply for Jobs	Quote For a Job	Communicating with Customer	Receive Payment	Leave and Receive Reviews
Thoughts	Are the jobs requirements descriptive enough and comprehensive?	What is a good price to quote and what is the market price?	What are the means of communication available through the platform?	Timely payment, taxes liable for	Reviews are an important consideration when the customer shortlists a freelancer
Pain Points	Might have too little information on requirements	Quoting way above or below the expected price	Miscommunication of project requirements, payment details	Delayed payment from customer. Not sure which government(s) taxes should be payable to	Unfair and dishonest reviews, only one side of the story
Opportunities	How might we make sure every job has adequate description?	How might we work towards having an agreeable price range for both parties?	How might we encourage users on both sides to use the platform to communicate rather than taking it offline?	How can we educate freelancers on what taxes they are liable for? How can we ensure timely payment for the freelancers?	How can we make sure that both parties in case of a dispute are able to defend themselves?
Solutions	Encourage buyers to fill in their requests using some templates. Provide msg functions to allow them to clarify if necessary.	Prices are set by the buyers based on requirements, supply and demand. Some negotiations can happen before the contract is executed, but no changes afterwards are allowed.	History of correspondence, specific templates for jobs. History of correspondence can be used as evidence during a dispute.	Payments are automatically released by the smart contract escrow. There will be no delay in payments.	Allow responses to be made to reviews. Allow the link to display the delivered work so that the public can also judge for themselves. (Phase 2)

5. Blockchain Economics

The utilization of smart contracts on the blockchain provides an opportunity to disrupt existing freelance marketplaces. Blockchain technology enables economic value through the benefits of disintermediation, cost savings and the ability to introduce an open network incentive system.

5.1 Disintermediation

As markets scale in size and geographic reach, the process of establishing freelancing agreements becomes more challenging because parties lack pre-existing relationships and trust, relying on intermediaries to assure transaction security and enforce contracts. Such intermediary organizations thus possess high bargaining power and are allowed to dictate the fee structures for transactions. Traditional freelance market providers require higher cost overheads for manpower, upkeep and maintenance of their services. Such additional costs are naturally passed down to the users of the platform. The value of blockchain technology is that it enables trustless transactions without the need for an intermediary (Pandey & Litoriya, 2021). By encoding freelance agreements into smart contracts running on the blockchain, much of the overhead costs of operations can be alleviated, and hence passed down to users in cost savings.

Conventional payment methods for online services typically involve the use of credit cards, wire transfers, and other banking services. Transactions via such avenues carry inherent costs and risks. Fees are charged whenever payments are made using credit cards, and rates are charged for foreign currency conversions and cross-border transfers. Credit cards also carry additional fraud and security risks. Settlement times when using traditional payment services would typically take upwards of a few business days. Additionally, these payment solutions assume that access to banking services is available to the individual, and this is not always the case in many developing nations (Acuant, 2020). Blockchain technology seeks to address these issues by means of cryptocurrencies. Anybody with access to the internet can create a cryptocurrency wallet. Payments and transfers using cryptocurrencies are verified and settled on the blockchain without the need to expose underlying information to a third-party, and typically within a short span of time. Payment charges are minimized as the only costs involved are the fees for using the blockchain.

5.1.1. Savings Forecast

Juniper Research forecasts that the number of cross-border transactions recorded on the blockchain will surge to 1.3B by 2023, a CAGR of 82% over the next 4 years (Juniper, 2021), more than 50% of these transactions are in the Asia Pacific region.

Juniper anticipates that banks stand to save close to $27B a year by 2030 through blockchain implementation.

Figure 3: Number of Cross-border B2B Transactions Recorded on Blockchain: $1.3 Billion by 2023, Split by 8 Key Regions

- North America
- West Europe
- Far East & China
- Rest of Asia Pacific
- Latin America
- Central & East Europe
- Indian Subcontinent
- Africa & Middle East

Source: Juniper Research

The integration Blockchain technology provides short-term value predominantly in reducing cost, but also creates transformative business models in the longer term.

High commission rates are applied for each job done on international freelancer platforms. In addition, after these commissions are applied, sellers must pay commission when collecting from the bank, but when payment is done with crypto, sellers only pay network fees. These fees will be considerably lower in the long run as the underlying blockchain is updated to handle faster transaction at lower fees.

As referenced above and in previous sections, significant savings could be found for the estimated $1.7 trillion global freelance income and $300M freelance income on whiz platform (assume 20% of 3m whiz FL earn $500):

- Savings of 20% Intermediary fees $340B and $100B savings in transfer, credit cards fees & FX rates
- Savings of $78M for whiz users in 20% commissions & 6% finance-related fees

5.2 Network Incentive System

Whiz is introducing a native token (WHIZ) for the platform to attract users, incentivise, engage and to retain users for the long term through gamifying the user experience. WHIZ is a utility token, not to be presold nor traded for cash. WHIZ can be utilized on the platform for premium features, to exchange for profile boosts and other such benefits. Instead of a closed internal system, choosing a native token on an open and public blockchain allows easier integration with potential partners. Most importantly, users will have a stake in platform operations as governance related features get rolled out in future.

Whiz platform will utilise 2 different tokens (excluding gas fees):

Token	Purpose
WHIZ (Utility token)	Rewards and Incentives / exchange for premium features
USDC (Stable coin)	Payment between users / purchasing premium features

USDC stable coin is selected as the cryptocurrency for payment to mitigate possible fluctuations in cryptocurrency prices, as it is pegged to the value of USD.

5.2.1. Tokenomics

When users register on the platform, they will receive a set quantity of tokens as a bonus for joining and 2 free job posts per month. In addition, as part of the gamification strategy, users can earn badges and WHIZ tokens by uploading references, linking academic/professional certifications and external works, completing jobs through the platform, and referring new users. Consistent job completions with high ratings will also yield additional WHIZ and 10 *'Exceeds Expectation'* Recommendations will earn a Top-Rated Badge. Actions to earn WHIZ are summarized in the table below.

Whiz Token Incentive System – How to earn WHIZ Token & Badges?	
Seller	**Buyer**
▪ Register on the Whiz platform	▪ Register on the Whiz platform
▪ Complete jobs through the platform	▪ Acknowledge completion of jobs
▪ Leave reviews for buyers	▪ Leave reviews for sellers
▪ Refer new users to the platform	▪ Submit Job Description (JD) templates to Whiz
▪ Upload 2 References earn Verified WHIZard Badge	archives when posting jobs
▪ Link academic/professional certifications & external works earn WHIZard Arsenal Badge	▪ Refer new users to the platform (Bonus WHIZ for referrer and referee)
▪ Achieve 10 Exceeds Expectation Recommendations earn Top Rated Freelancer Badge	

The WHIZ token can be used to exchange for premium features such as job or profile boosting, quality of life perks and additional custom profile features. These premium features can also be paid for using USDC stable coins, allowing user to purchase additional benefits if they have not earned sufficient WHIZ tokens and serves as a revenue stream for the platform. Ways to spend the tokens are summarized in the following table.

| What can WHIZ be used for?	
Seller	**Buyer**
▪ Boosting of profile to top of page (use WHIZ or USDC)	▪ Boosting job listings to top of page (use WHIZ or USDC)
▪ Subscription to "Pro" account for 1 month	▪ Subscription to "Pro" account for 1 month
▪ Bonus features for "Pro" account:	▪ Bonus features for "Pro" account:
- Upload external portfolio work	– Access to JD templates
- "Pro" badge reflected on account	– "Pro" badge reflected on account
- Follow list – receive email updates when followed buyers post new jobs	– Favourites list – can add and manage a list of favourites sellers

6. Proposed Solution

6.1 Technology Stack

To address the different issues, pain points, and needs laid out in the above sections of this report, we have decided to design a hybrid technology stack that employs the blockchain along with modern web technologies. The frontend client shall be built using HTML5, CSS3, and JavaScript. The frontend shall be hosted on a web server and can be accessed via web browsers or installed on mobile devices as a progressive web application (PWA).

The backend components are hosted using a state-of-the-art serverless computing architecture by means of the MongoDB Atlas and MongoDB Realm services. A secured connection between the business functions in MongoDB Realm and the MongoDB Atlas database allows for the processing of information required for the web application to function. By adopting a serverless architecture, we further lower our overhead operating and maintenance costs resulting in significant efficiency gains.

Our solution leverages on the power of decentralized blockchains to implement robust and tamper-proof settlements. Agreements between buyers and sellers on terms and payment amounts are encoded within smart contracts that are deployed on the Polygon blockchain. Additionally, for our platform's incentive system, we shall be issuing our native token (WHIZ) using the ERC20 token standard on Polygon. A summary of our technology stack is presented in the diagram below.
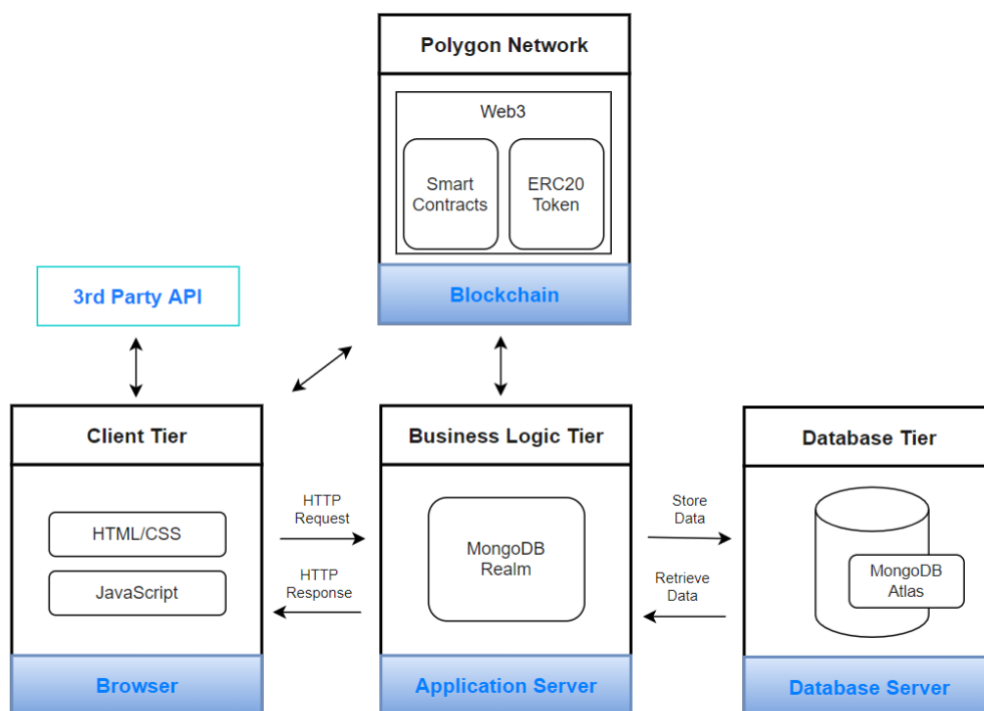
To validate potential registrants, as well as to conform to know-your-customer (KYC), anti-money laundering (AML), as well as other regulatory requirements, we have planned to integrate with various services that are able to identify our clients and ensure compliance. Enhancing the user experience is our topmost priority and plans to expand on the number and types of services to integrate with in future are on the roadmap.

6.2 Cryptocurrency Payments

As it is our aim to address the payment issues highlighted in previous sections, our solution seeks to adopt cryptocurrency payments to achieve disintermediation. All transactions that take place on the Whiz platform shall be transacted using cryptocurrencies on the Polygon network. These include the USDC stable coin, and our native platform token (WHIZ).

When a buyer enters into an agreement with a seller, he or she is required to send the agreed amount of USDC to be locked into the smart contract and held in escrow. Upon satisfactory completion of the work required, the buyer shall accept the delivery, and the locked USDC funds are released to the seller's cryptocurrency wallet.

The incentive system of our platform occasionally awards users with rewards based on specific activities completed. These rewards are paid out in WHIZ tokens and airdropped to the respective user's cryptocurrency wallet. Additionally, users may pay for premium services on the platform using either USDC or WHIZ tokens.

In the present state, users on the platform would hence be required to setup and manage their own cryptocurrency wallet, as well as procure the necessary USDC funds for transactions. However, we have plans to integrate with established exchanges and fiat-to-crypto gateways in the future to make the process smoother and enhance the overall user experience on our platform.

6.3 Whiz Decentralized Freelance Marketplace
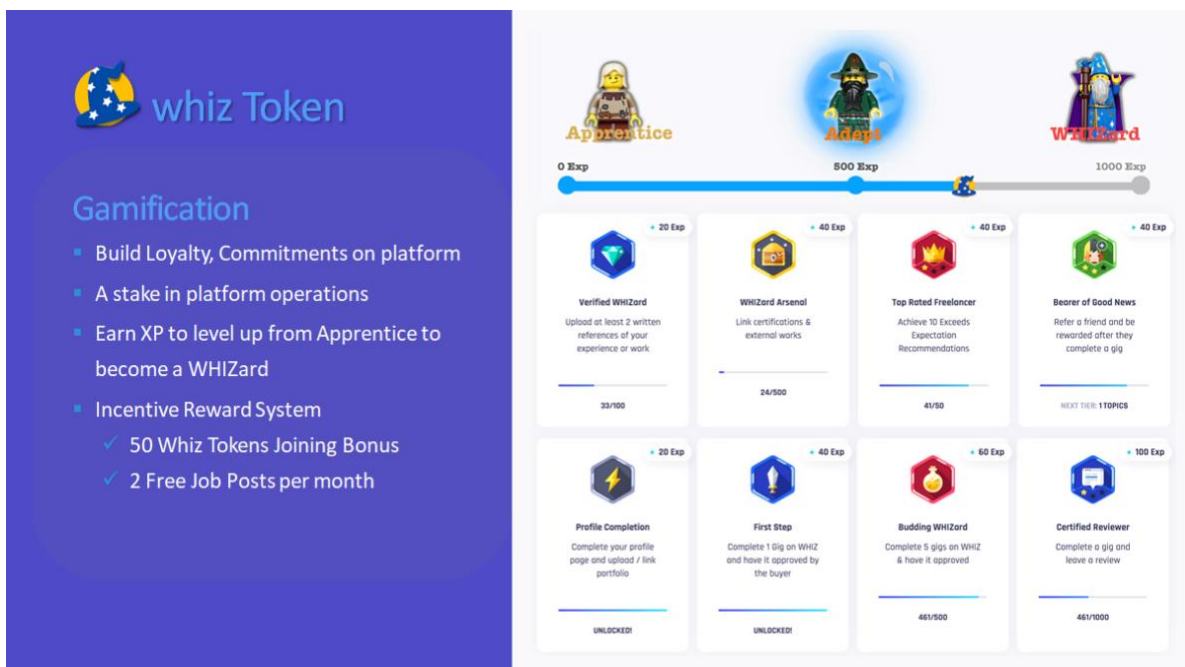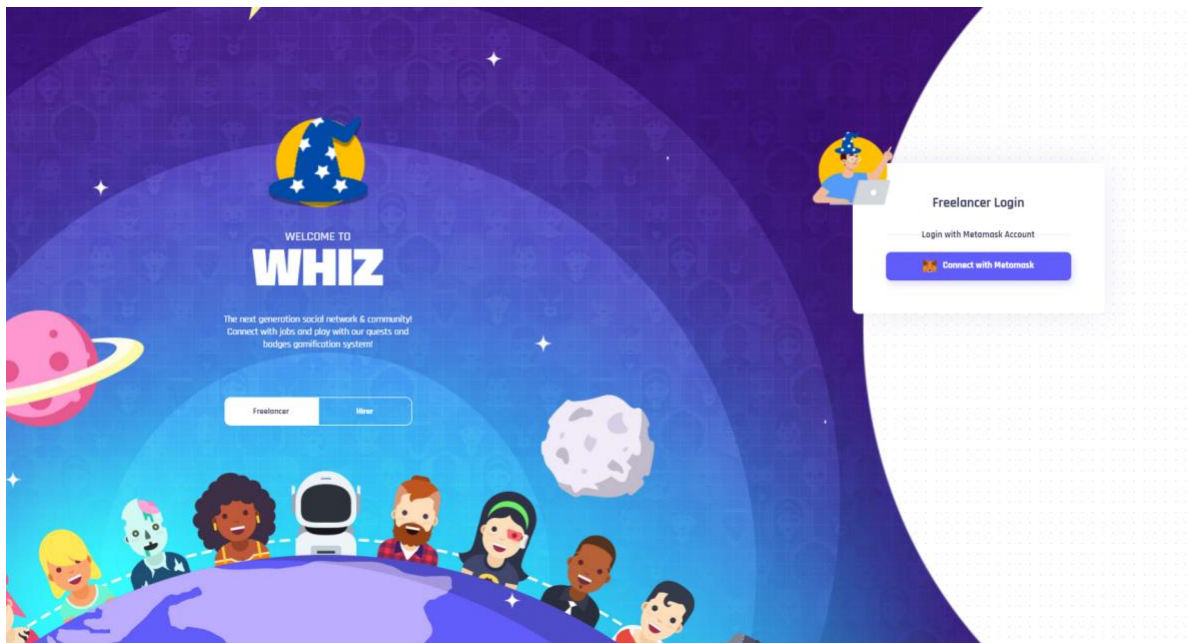
6.4 Prototype

Whiz Live Prototype: https://azurekn1ght.github.io/WhizPlatform
GitHub Repository: https://github.com/AzureKn1ght/WhizPlatform
(Detailed technical documentation can be found in the README of the GitHub Repository)

7. Financial Analysis

7.1 Lean Canvas

Our lean canvas summarizes the customer pain points, our Top 3 solution features, and our value propositions for the target customer segments. It also includes key performance metrics and our GTM channels. A summary of the revenue streams & cost structure, with details is provided in the next section.
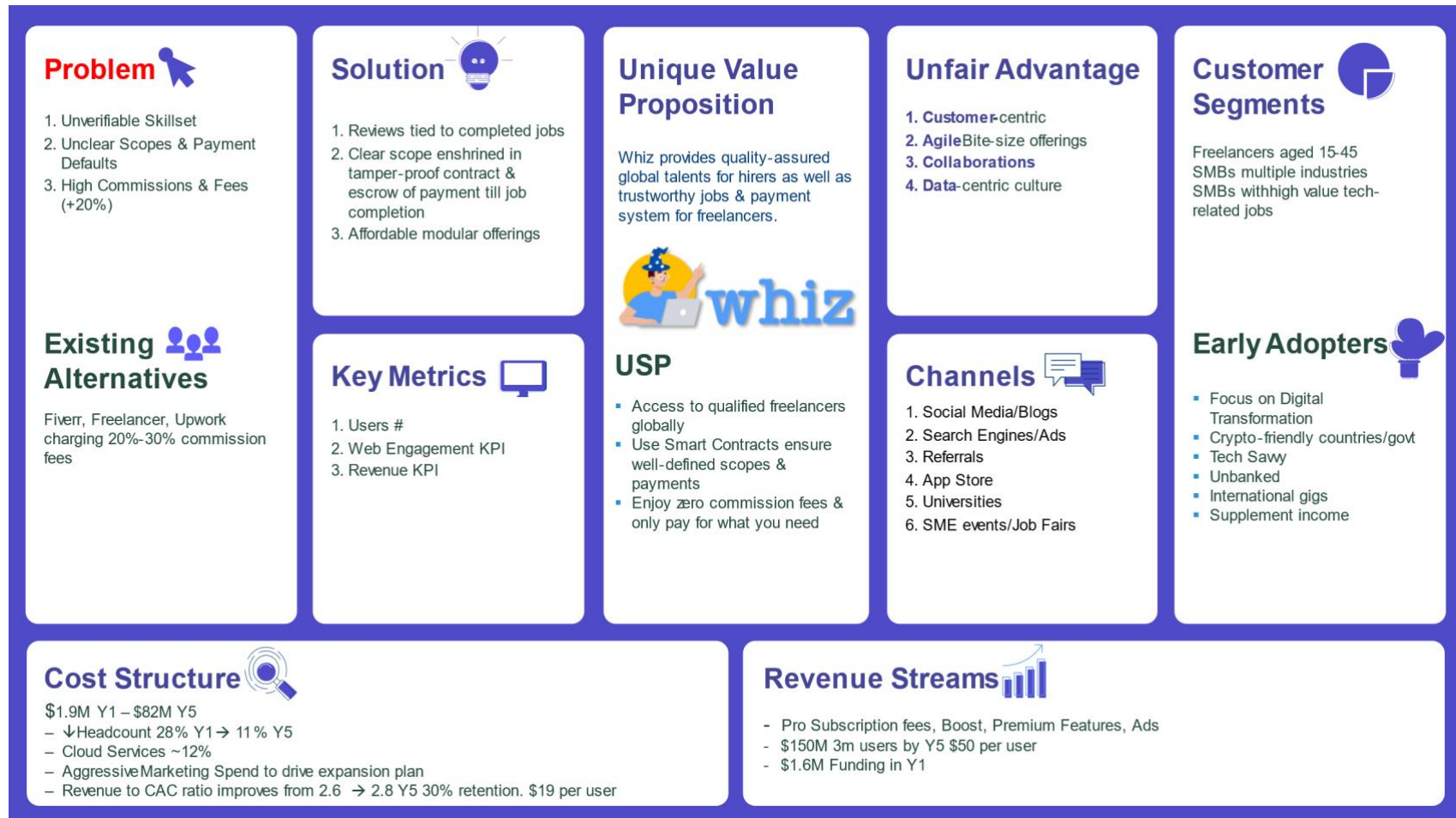
7.2 Growth Projections

More people own a smartphone than have a bank account (Acuant, 2020). In Indonesia – the world's 7th largest economy – only 48.9% of the population have a bank account, but 81.4% of the population own a mobile phone and 64% of the population have access to the internet. Philippines, Vietnam, and Mexico tell a similar story, less than 37% of the population own a bank account, but more than 67% own a mobile phone or have access to the internet. China and India, despite having relatively high bank account ownership, claim large shares of the global unbanked population because of their sheer size. Globally, about 1.7 billion adults remain unbanked (World Bank, 2017), according to the Global Findex data from the World Bank. Most of them are in seven economies – China (13%), India (11%), Indonesia (6%), Pakistan (6%), Nigeria (4%), Mexico (3%) and Bangladesh (3%); and the rest of world (54%). Cryptocurrencies can help to fight financial inequality and to bring financial services to people without access to a bank (Bank4YOUGroup, 2018).

We are optimistic about the viability of Whiz for the following reasons:

- Global expansion of the freelance economy of 33% in 2020 (Djurovic, 2021) and 140% growth since 2009 (Fuller, 2020)
- Rising cryptocurrency adoption rate. Blockchain analysis firm Chainalysis reports an 881% increase in global cryptocurrency adoption over the past year by individuals (Chainalysis, 2021), and institutional (Forbes, 2021) interest has been growing as well.

7.2.1 Revenue

The two revenue levers for Whiz are the sale of premium features and data monetisation.

Premium features are optional paid enhancements such as enhanced account memberships, talent matching, post boosters, project management service, etc. that users may purchase on an ad-hoc or regular basis to increase their chances of finding quality job/candidate matches and better manage the assignments.

Our data monetisation strategy includes direct methods such as offering on-platform advertising space and sale of usage data to third parties (within the bounds of privacy laws and agreements), as well as indirect methods such as data-driven refinements to product and marketing strategies to produce higher revenues and cost savings. We will also seek collaboration with other enterprises to create opportunities for cross-selling.

A table with a detailed breakdown of the revenue items and revenue projection over a 5-year period is in section 7.3.1.

7.2.2 Users

We are highly dependent on having a strong user base to drive our revenue levers to ensure sustainability and profitability. As such, we will require a highly effective marketing strategy to promote brand awareness and build brand reputation.

Taking into consideration the relative novelty of this business idea and the statistics on the gig economy and cryptocurrency market, we project an active user base of 25,000 by the end of first year of operations, with a year-on-year growth rate of 231% to hit 3 million in 5 years.

7.2.3 Costs and Funding

The main categories of costs include salaries/renumerations, cloud services, sales and marketing and professional services.

We will start with 10 headcounts in year 1 and grow to 230 staff strengths by year 5. The key job junctions can be found in Appendix D. Staff will receive salary below market rate for the first two years so that initial funds may be channelled to building the business.

To fund our operations, we intend to obtain grants from Singapore government agencies such as Enterprise Singapore and the Monetary Authority of Singapore, as well as seeking out angel investors with the assistance of the National University of Singapore. The breakdown of figures is detailed in the Financial Forecast in the next subsection
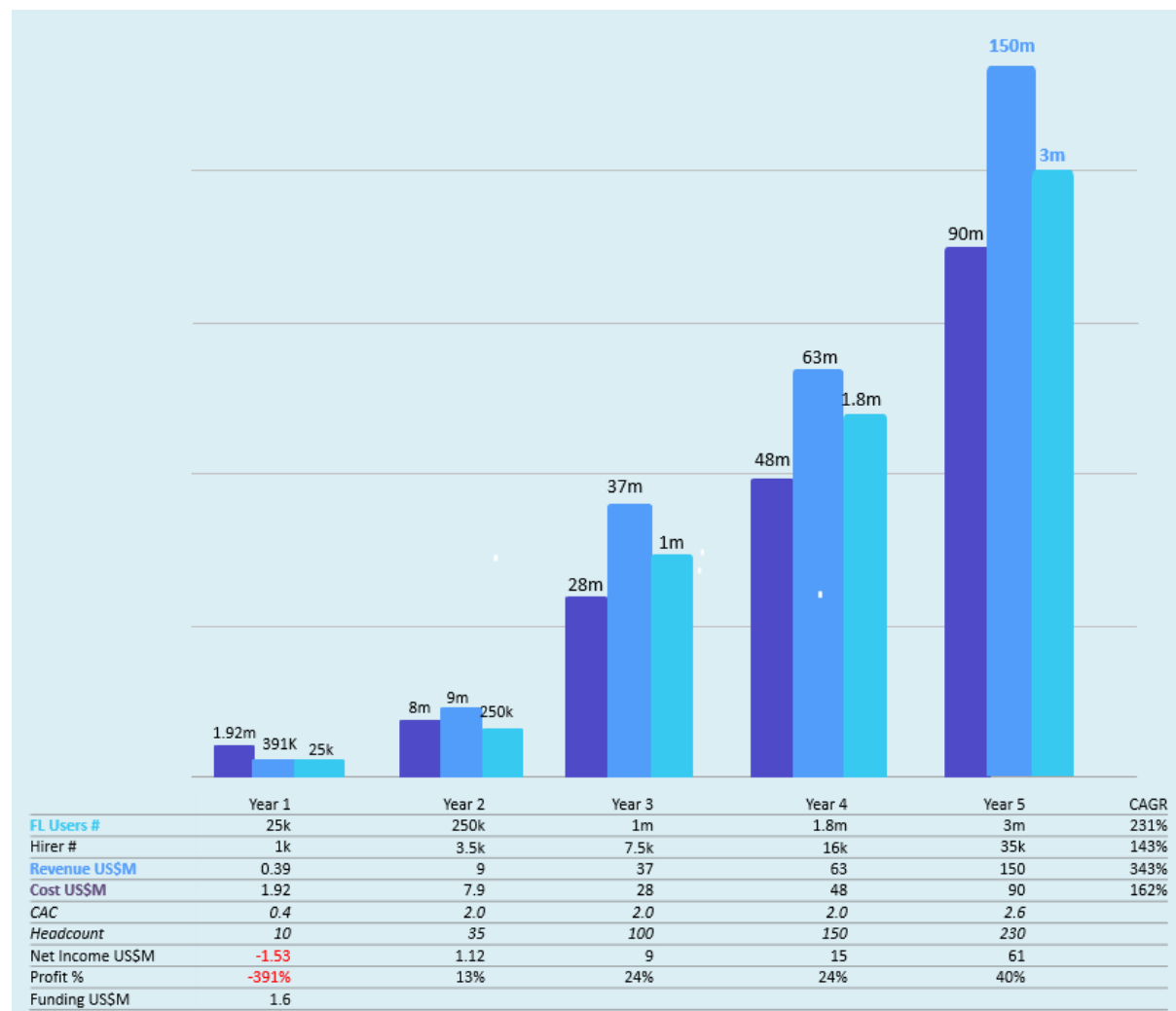
7.2.4 Digital Marketing Plan

Our primary go-to-market is via the digital channel, we plan to execute aggressive digital marketing campaigns to drive awareness, customer acquisition, conversion, retention and referrals. We will begin with a focus on search engine optimisation (SEO) and social media advertising, these tactics are most highly positively correlated with increased sales and paid placements on search engine results pages are also an unobtrusive and cost-effective way to reach buyers. One example is seeking advertising and endorsements opportunities with freelancer and cryptocurrency blogs and communities. Whiz will be available via mobile applications (Android and iOS) in our phase 1 plan. We will also run a referral programme where users will be rewarded with the native WHIZ token for successful referrals of new users. we will remain nimble and adapt our strategies and marketing fund allocations according to evolving market trends. We will look for opportunities to form strategic partnerships with related players such as the aforementioned social media players, cryptocurrency organisations, enterprises, local government, conducting and participating in online and offline promotional activities.

Digital Marketing Plan

13m

Awareness & Acquisitions
Drive awareness of our USPs

Metric: average clicks# per visit, monthly active users

- Social Media (FB)/Posts (Freelancers Union; Tech Blogs; Crypto Blogs)
- Search Engines/Paid Search (Google Ads)
- Ads at cointelegraph, coindesk
- Email Marketing
- Promotional Video
- Press Release
- App Store
- Universities/SME events/Virtual Job Fairs

2%

250k

Activation
Allow users realize the value of Whiz & its features with 2 free job posting per month

Metric: user activation, conversion rate

- New Trial signups
- Discounts
- Exclusive Offers

10%

25k

Retention, Revenue & Referral
WHIZ Token Rewards:
- Create Success Stories to turn users into advocates
- Generate referrals consistently
Drive incremental revenue through premium features

Metric: customer retention, churn rate

- Success Stories
- Referrals
- Upsell
- User Group Survey
- Feedback Form
- Net Promoter Score

7.3 Financial Projections

Our revenue projection is $150M over 5 years at 343% CAGR. User count growth at 231% to hit 3m by year 5 and a $50 revenue per user. Details of the cost components can be found in Appendix E.

	Year 1	Year 2	Year 3	Year 4	Year 5	CAGR
FL Users #	25k	250k	1m	1.8m	3m	231%
Hirer #	1k	3.5k	7.5k	16k	35k	143%
Revenue US$M	0.39	9	37	63	150	343%
Cost US$M	1.92	7.9	28	48	90	162%
CAC	0.4	2.0	2.0	2.0	2.6	
Headcount	10	35	100	150	230	
Net Income US$M	-1.53	1.12	9	15	61	
Profit %	-391%	13%	24%	24%	40%	
Funding US$M	1.6					

Assumption: Investor Funding of US$1.6M in Year 1.

7.3.1 Revenue Breakdown

Freelancers get 2 free job postings per month, below are the pay-as-you-use modular fees. The revenue model assumes user take up rate progressing from 5% to 20% over 5 years.

	Y1	Y2	Y3	Y4	Y5	CAGR
Freelancer User Count	25k	250k	1m	1.8m	3m	231%
Hirer count	1k	2.5k	7.5k	16k	35k	143%

Year		Y1		Y2		Y3		Y4		Y5	
Premium Features	Unit Price	% Take-up	Revenue US$K	% Take-up	Revenue US$K	% Take-up	Revenue US$K	% Take-up	Revenue US$K	% Take-up	Revenue US$K
Profile Boost	$2	5%	.00	5%	0.03	5%	0.1	10%	0.4	10%	0.6
Seller Pro account (10 Boost/mth)	$10	10%	0.30	10%	3.00	10%	12.0	15%	32	17%	61
Buyer Pro Tier 1 account (5 posts/mth)	$10	0%	-	5%	0.13	5%	0.5	10%	1.8	5%	1.5
Buyer Pro Tier 2 account (10 posts/mth)	$20	20%	0.07	20%	0.17	20%	0.4	20%	1.0	20%	1.7
Buyer Pro Tier 3 account (20 posts/mth)	$25	5%	0.02	5%	0.05	5%	0.1	10%	0.7	10%	1.1
Urgent Jobs	$35	0%	-	5%	5.25	5%	21.0	10%	22	6%	76
Courses	$10	10%	0.03	10%	0.25	20%	2	20%	4	20%	6
Project Manager (hourly rate)	$30	0%	-	5%	0.06	5%	0.1	5%	0.3	5%	0.6
Ad Space	$0.002	0%	-	10%	0.18	10%	0.7	10%	1.3	10%	2.2
Total			$0.39		$9		$37		$63		$150
Revenue per user US$					$16		$36		$37		$35	$50

8. Feasibility Analysis

8.1 Economic Feasibility

Whiz is adopting a modular pay-as-you-use business model primarily as a key differentiator against competitors to quickly build up the network of large user base. A large user network will drive incremental revenue from the sale of premium features and potential data monetisation. Instead of paying potentially hefty commissions that increase with the value of jobs, buyers only pay a flat fee for each of the features that they deem essential for standing out among their competitors.

To the Freelancers, the buyers and job opportunities that they provided with are of paramount importance in driving traffic and usage. As such, Whiz will offer to buyers two free job posts per month as an incentive for using the platform.

The set up and running of the platform involves several costs components, outlined in Section 7 Financials Projections. Until the platform achieves the critical mass of users where the revenue generated from the sale of the premium features and data monetisation outweighs the costs involved, the economic feasibility is dependent on securing government grants and investment funding to extend the runway for the platform to take off. The cost breakdown and assumptions in funding can be found in Appendix E.

8.2 Technology Feasibility

Our chosen technology stack as explained in Chapter 6.1 are currently in existence, publicly available and used by many around the world with real use cases. We have created a basic and fully functioning product. Furthermore, as these technologies are up-to-date or even relatively new (as in the case of blockchain), we believe that they will remain relevant by the time we are ready for a full release.

The product is designed in such a way that any layman can use it with minimal technical knowledge. For example, freelancers can easily upload references and portfolios to help verify their credentials, hence allowing ease of adoption among our target users. The creation of Whiz platform is technologically feasible.

8.3 Schedule Feasibility

The development of the platform has been broken down into stages for prioritization as follows:
Roadmap

Stage	Objectives	Deliverables	Roadmap
Proof of Concept	MVP	– Login & Registration – Profiles Set Up – Job Posting, Freelancer Portfolio – Payments, Smart Contracts	Year 0
Phase 1	Base Features Go-Live	– Post Boost & Profile Boost, Pro-subscription – Favourite Seller List, Seller Follow List – Whiz Token, Quest – Mobile App	Year 1 H1
Phase 2	Premium Features Go-Live	– Project Manager to provide value added services like vetting process – Courses provided by Whiz-curated seller	Year 1 H2

Furthermore, adoption of agile methodology such as using of sprints and product backlogs, allow the team to better plan and allocate the time and resources to the highest priority user stories and features required during a specific sprint.

8.4 Legal & Regulatory Feasibility

MAS FinTech Regulatory Sandbox enables financial institutions and FinTech players to experiment with innovative financial products or services in a live environment within a well-defined space and duration. MAS provides the appropriate regulatory support by relaxing specific legal and regulatory requirements, which the sandbox entity will otherwise be subject to, for the duration of the sandbox. Whiz will apply to the Regulatory Sandbox Express program to fully comply with the relevant legal and regulatory requirements. Whiz will also follow the Payment Services Act 2019 as well as follow the regulatory requirements of other country central banks.

For expansion into the China market, our initial focus is to recruit at least 2,000 freelancers who aspire to work on international gigs. Subsequent plan to set up a local team and a local partnership in China, involves the following considerations in addressing the regulatory requirements:

1. Engage a strong research team (non-local) to determine the best mode of entry amid unpredictable policy changes. Preferably on how to get government backing.
2. Conduct due diligence on prospective local partner and local hires
3. Regulatory considerations if we expand into SME recruitment:
   a. Capital controls: Outflow restrictions for hirers based in China. Chinese government backs blockchain but not DeFi. Further research needed on escrow regulations.
   b. Payments: To facilitate transactions with local SMEs, we may consider local intermediary at initial phase – collaborate with WechatPay / AliPay to broaden our reach at initial phase. Also consult crypto exchanges formerly based in China: Huobi and BTCC
   c. IP rights: first to file policy, local judicial enforcement

8.5 Proposed Execution Plan

Singapore is our base and our test bed for the launch of the Whiz platform and new features in phases. In our 5 years plan, we will focus on SME recruitment mainly in the English-speaking countries with economies offering job opportunities – Singapore, Australia, Philippines, United States, Canada & United Kingdom. To capture the growth of the gig economies as well as Freelancers looking for international gig opportunities or supplement income, we will work on Freelancer recruitment in these countries plus ASEAN countries, India, China, Japan, Korea to capture 3m users in 5 years.
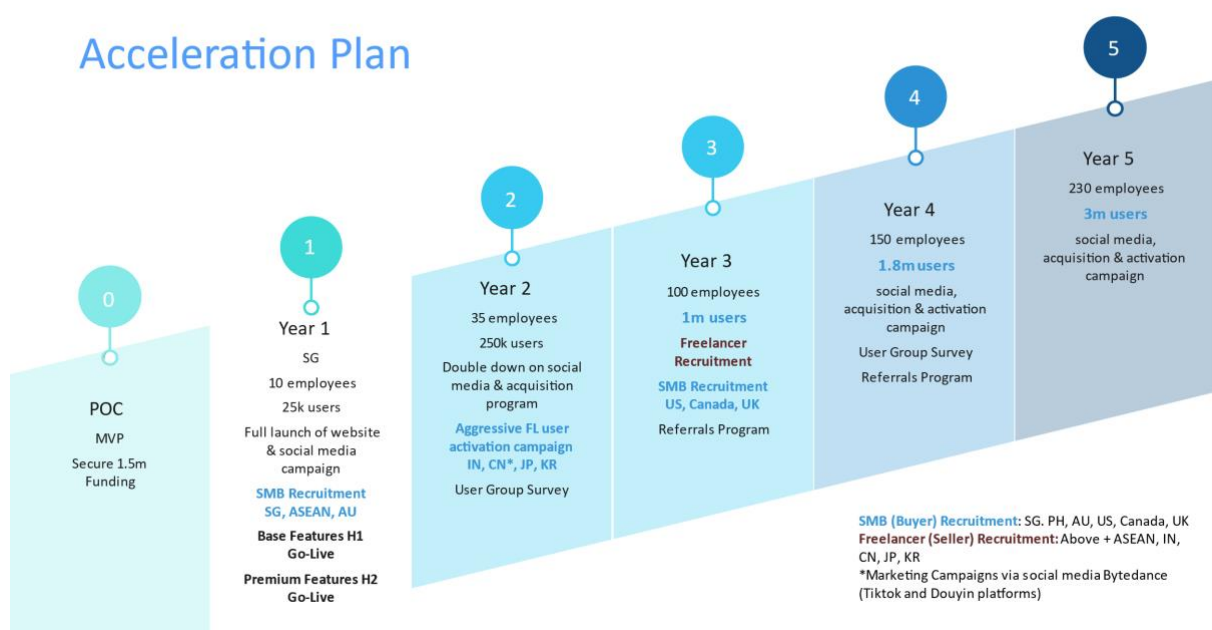
9. Risk Management

In this section, we identified the potential risks of implementing and operating a global job market platform and the risks associated with the implementation of blockchain technology. Also shared possible mitigations and ways to address.

9.1 Technical

Risk Area	Description	Mitigation
Consensus protocol Consensus: determining the order of events	Nodes involved in the transaction must reach an agreement before updating the blockchain ledger Proof of Work (more energy intensive) vs. Proof of Stake (newer, still prone to forking issues)	Leverage on established blockchain to enable transaction: Ethereum → Ethereum 2.0
Data Confidentiality	Our solution requires some degree of personal identification for legal / KYC reasons. Data leakage is a concern here. Possible single point of weakness: National ID – Wallet Address key value pairs stored on our servers.	256-bit encryption, secure storage locations. Possible blockchain based solution for ID storage: RecordsKeeper (https://www.recordskeeper.com/faq/)
Data Privacy	Even when transaction contents are hashed in a permissioned network, transaction metadata will always be viewable by all users. Metadata shows type and volume of activity between specific users.	Visibility is important in any public ledger, for transparency reasons. Some degree of anonymity: No explicit personally identifiable information, only the Wallet Address is displayed on the blockchain.
Cryptographic Key Management	Lack of single network controller means private keys ("personal passwords") are even more crucial. Accidental loss or theft of private key can lead to irretrievable or stolen digital identity and assets.	Users are responsible for safeguarding their private keys
Smart Contracts	Rely on data from oracles (external services which feed data using trusted APIs). Most vulnerable points for cyberattack.	Need to be robustly coded and tested and audited.
Interoperability & Integration	Hard to integrate into legacy systems, and exchange data with other blockchain networks. Risk of standards fragmentation due to different organisations working on it.	Be aware of the dominant standard bodies that other blockchain networks adhere to.

9.2 Operational

Proof of Work as a consensus protocol is not scalable for our application in the long run due to slow transaction speed (Chavez-dreyfuss, 2021). Although we are testing on Polygon, we expect significant changes when Ethereum 2.0 updates to Proof of Stake come 1H 2022, and will earmark an additional budget to cater for platform maintenance costs relating to unexpected patches and updates.

Platform users may approach us to resolve their disputes. We will include terms of service disclaiming responsibility or liability for any disputes between users. While these terms will help to minimize our involvement in user disputes, the time and efforts required to handle any disputes could have a short-term impact on our resources. For the longer term, a dispute resolution feature is planned for.

9.3 Regulatory

Compliance Risk, associated with cross-border transactions and local government policy changes, might affect our ability to operate in certain locales. We plan to integrate various authentication services, such as SingPass or third-party options, into our platform to identify our users to comply with KYC, AML, and other regulatory requirements.

Digital Services Taxes (DST) for taxing rights over the profits of companies that sell into their local market regardless of their physical presence. Companies and freelancers using the freelance platform are also subject to taxation in the countries the services are being used in. DST legislations are in place or proposed in 15 of the 37 OECD nations (Asen, 2021). Several jurisdictions in the United States are considering levying gross revenue taxes on certain digital activity (Morris, 2021). We will consult tax experts and comply with the local tax requirements for digital services tax or value-added services.

9.4 Social

Displacement of jobs, stemming from hirers (buyers) sourcing for overseas freelancers (sellers) offering more competitive rates. These are inevitable workforce trends that local governments and trade unions must be aware of to aid their citizenry in horizontal career mobility. Freelancers will benefit from the increased number of opportunities in across all industries in bigger markets in North America, Europe, Australia, China, and India (McKinsey, 2020). Whiz is taking this opportunity to provide a diverse pool of credible, qualified freelancers to plug the global skills gap.

9.5 Environmental

Extremely high energy consumption and increasing electronic waste generation (de Vries, 2021) to meet mining demands of the current Proof of Work consensus protocol. Proof of Stake used by Polygon network and eventually Ethereum 2.0 will reduce energy consumption by 99% (Frost, 2021) and eliminate the associated hardware arms race, thereby reducing electronic waste.

9.6 Business

Buyers/Sellers circumventing our platform can negatively impact our user base growth, if there is a trend of buyers hiring freelancers privately to avoid what they feel is a hassle of using a new platform. To discourage this, we will launch a native token (WHIZ) to incentivize users to stay on the platform and design Gamification features to build platform loyalty. More is described in section 4.2.1 Tokenomics of this report.

Reluctance to use cryptocurrency may slow platform adoption and negatively impact our revenue in the short term. In the long term, rising awareness on the benefits of cryptocurrencies for cross-border transactions will spur greater platform adoption among the general population, especially the unbanked (Bank4YOUGroup, 2018).

9.7 Financial

USDC Default Risk. USDC stable coin is said to be backed by the USD fiat currency on a 1:1 basis and it is not FDIC insured yet. At time of writing, the issuing company Circle has just 61% of the reserves in current assets, and some 14% in unsecured loans (Circle Assertion Report, 2021, p. 4), contrary to what it previously claimed (Light, 2021). Circle has announced its transition towards 1:1 dollar liquidity for USDC (Team Circle, August, 2021). We will continue to monitor Circle's progress on this matter, and on their journey to becoming a full-reserve digital bank regulated by the FDIC and Federal Reserve. If necessary, we may opt for an alternative cryptocurrency instead.

Exchange Rate Risk from fluctuating US Dollar values can affect our revenue since we are registered in Singapore. It can somewhat be mitigated by hedging transactions via Currency ETFs or stable coins backed by other currencies or commodities (e.g. Digix Gold).

10. Future Work Recommendations

Feature Name	Feature Description	Timeline
Dispute Resolution Centre	Allow users to raise job disputes and fellow platform users can play a part by arbitrating dispute cases to earn WHIZ tokens as rewards.	Y2 Q1
AI-driven enhancements	Based on user activities, users will receive recommendations on jobs/freelancers and premium features. This will help users in getting more out of the platform.	Y2 Q2
Whiz Magic – Corporate Social Responsibility program	Do our part to contribute to the society as well as build brand reputation and loyalty. Examples: Free/subsidised courses for the disadvantage or known population in poverty. WHIZ tokens gifts for freelancers on Magic program.	Y2 Q1

Price List of Premium Features

FEATURE	PRICE	Timeline
BUYER		
Post Boost – bump up page 1. Scrolling marquee for N hr/days	$2 per boost	Y1 Q1
Urgent Job – pinned post for N hrs/days	$10 per post	Y1 Q1
Pro Buyer Tier 1-3 membership subscription	$20-$35 per month	Y1 Q2
Pro Buyer Badge – aesthetic feature	Pro Buyer-only feature	Y1 Q2
Favourite Sellers List – add and manage a list of favourite sellers	Pro Buyer-only feature	Y1 Q2
Access to job description templates	Pro Buyer-only feature	Y1 Q2
Project Manager – professional consultant to manage project from end-to-end i.e., job post creation to recruiting to progress to completion	$30 per hour	Y1 Q4
SELLER		
Profile Boost – bump up to page 1. Scrolling marquee for N hr/days	$2 per boost	Y1 Q1
Pro Seller membership subscription (10 Profile Boosts/month)	$10 per month	Y1 Q2
Pro Seller Badge – aesthetic feature	Pro Seller-only feature	Y1 Q2
Follow list – receive email updates when followed buyers post new jobs	Pro Seller-only feature	Y1 Q2
Upload external portfolio	$10/month (limited to N GBs)	Y1 Q2
Courses – provided by Whiz-curated seller	$10	Y1 Q3

11. Conclusion

The freelance economy is growing at a tremendous pace with no signs of abating. Studies indicate that we are currently at a precipice of a huge transformation of how companies and individuals define their concept of "work". The fallout from the COVID-19 pandemic has further exacerbated this trend by forcing the rapid adoption of remote work. Upon analysis of incumbent players in the space, we had identified the online freelance market as a nascent industry ripe for disruption. Results from our iterative Design Thinking process teased out the fundamental issues that are plaguing participants in the freelance economy. Freelancers today experience difficulty in obtaining sufficient jobs to sustain their income, and are at risk to payment defaults and unclear contractual terms. Hirers lack the ability to validate the skills of candidates, and are at the mercy of rudimentary rating services offered by the online platforms. Furthermore, existing online freelancing portals levy exorbitant fees on their users.

We hence designed *Whiz* from the ground up as a solution to tackle the core issues of high fees, reliability, and credibility in the freelance economy. Our platform provides an open and inclusive online freelance marketplace that is powered by decentralized blockchains. Job requirement details are enshrined in tamper-proof smart contracts to reduce ambiguity. Escrow payments are performed through smart contracts to simultaneously achieve reliability and disintermediation. Detailed reviews tied to actual jobs completed are recorded and fully traceable on the blockchain. By deploying our services on a fast and efficient public blockchain such as the Polygon network, we are able to reduce operational overheads, thereby minimizing the costs to our users. With the intention of fostering a sustainable ecosystem, we introduced our native token (`WHIZ`) using the ERC-20 token standard to incentivise users to actively participate and have a stake in the growth of our platform. Additionally, by employing a meticulously crafted gamification framework, we hope to stimulate engagement and user retention in the long run. Our goal is to utilize modern technology to cultivate a thriving freelance marketplace that is open and accessible to everyone.

To bring the product to market, our team developed a comprehensive business plan. Firstly, we conducted feasibility studies and identified possible exposures and appropriate mitigation across *Technical*, *Business*, *Operational*, *Financial*, *Social*, *Environmental*, and *Regulatory* risks. Secondly, we devised an extensive Digital Marketing Plan to address the areas of *Awareness and Acquisitions*, *Activation*, and *Retention* to boost adoption. Thirdly, our team ran through several models and simulations in our financial analysis to ensure that our figures were coherent. The results that we arrived at indicate a very promising potential for growth, with revenue projections reaching $150 million by year 5, and a userbase of 3 million users benefitting from a total of $78 million savings in intermediary commissions and finance-related charges. Overall, our team is confident in our unique approach of focusing on core fundamental issues while designing solutions in concert with our users, and implementing on open and modern technology standards. We believe that *Whiz* is well-positioned with the right ingredients to create a revolution in the online freelance economy.

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