



BiteCoin Network

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Introduction

We all love food, in fact, we are crazy about food. We love eating out as well. However at times, you want to enjoy a meal with your friends in the comfort of your home, or you are too busy working that you want to order a takeaway, or that it's simply convenient that way. Either way, we do a lot of takeaways. There are hundreds if not thousands of food delivery networks out there.

We, at BiteCoin network, offer you the most intriguing alternative. As the world's first decentralized, cryptocurrency-backed food delivery network, we have a lot to offer to our customers worldwide.

Have you ever used a food delivery service and waited for hours only to be disappointed at the pathetic service and performance, or worse, to get a cold meal? Have you ever thought - "What a disappointment! I wish I had my money back!" Well, look nowhere - you have come to the right place!

Everything in the frontier or technological advancement today is on-the-blockchain. Blockchain technology seems to be the next internet. With decentralized applications and ledgers, more and more power comes back to the people thereby enabling an advancement in the philosophies of how democracies will function in the future world, as a whole. We, at BiteCoin, are also committed to this philosophy and would like to contribute our share of the pie.

So, the question is simple. Is on-demand food delivery businesses' next phase of natural development steered towards implementing the blockchain? If so, how do you articulate the business model in such a framework?

The core premise of this whitepaper will be structuring ourselves in this context to answer these questions in a pragmatic way. We try our level best to avoid using technical jargons and make the whitepaper appealing to every end-user. This is one of the the main objective that we aim to achieve while preparing this whitepaper as many nowadays are just filled with technical or business jargons that lead the end-user astray of promising unrealistic opportunities. As with all components of our venture, we intend to keep everything open and transparent as to increase trust and reliability for our users.

As one of the oldest industry, we at BiteCoin believe there is a tremendous potential for growth in these sectors. As humans, we don't have to reinvent the wheel, but day by day, we make the wheel and its performance embark on a tremendous progress journey. We intend to do the same to the food delivery service industry. The on-demand delivery was an innovation in terms of applying technological advancements on existing consumer industry.

BiteCoin offers the next natural upgrade to the on-demand food industry - the hot and new Blockchain!

This whitepaper is organized as follows. The first section will give a brief introduction on what is a blockchain, its advancement as a milestone in the technological frontier. It will also describe why Blockchain is the natural phase of development in the on-demand food delivery industry and why it is quintessential to incorporate those advances from a philosophical perspective.

The second section is going to describe the vision and mission of BiteCoin as a corporate entity, its market placement objectives and the grand scenario.

The third section will give a comprehensive description of our market research. The market analysis along with the competitive analysis and advantage description is going to enlighten the reader with information about how neatly and effectively we can place our product to grow into a business making substantial profit over the years.

Fourth section describes how this market research presents a viable business opportunity in the wake of its SWOT (Strength, Weakness, Opportunities and Threats) analysis. We use this opportunity scenario along with the previous market and competitive analysis to build a comprehensive business model in the fifth section. This business model will be the core working model of our idea in an implementation level.

In the sixth section, we look at how this idea can be actualised with our go-to-market strategies.

The following seventh section is about the ket token metrics of the ICO we plan to launch in Q1 2018, including but not limited to, token allocation, utility spread and also distribution parameters. A following section showcases our core team members, their expertise and how they relate to the project and also our advisors in this regard.

The two concluding sections will be based on the critical questions of all business ventures. The first being the risks associated with the project and resilience strategies that we, as a business model, intend to operate on. The second will be the financial metrics detailing the business forecast, revenue projection and expected return on investment on an average scale.

Why Blockchain

This section will help the user to get a brief idea of what a blockchain is and how is it an integral part of the new technological forefront.

"We may be at the dawn of a new revolution. This revolution started with a new fringe economy on the Internet, an alternative currency called Bitcoin that was issued and backed not by a central authority, but by automated consensus among networked users. Its true uniqueness, however, lay in the fact that it did not require the users to trust each other. Through algorithmic self-policing, any malicious attempt to defraud the system would be rejected"

-Melanie Swan, "Blockchain - Blueprint for a New Economy" (Swan 2015)

I. What is a Blockchain?

A blockchain is a consensus based cryptographic algorithm that continuously links records known as blocks (Narayanan et al. 2016). Simply put, a blockchain is a chain of constantly growing cryptographically secure set of records, one linked to the other, like links on a large chain.

To put things into perspective in layman's terms, the most important and appealing characteristic of a blockchain is the fact that it is literally impossible to tamper with. As a public and consensus-based ledger, if one were to manipulate the entries in it, it has to be done across all the millions of computers that is running those ledgers simultaneously, on top the already difficult cryptographic functions he or she has to decrypt before making any changes to any single point of entry. A second appealing feature of the blockchain is that the security of a block in the chain grows as time passes. This is achieved by the fact that as more and more links add to your chain - more the blocks on a chain - the older blocks are more secure because because if you want to modify any part of it, the every one of the later entries should also be modified (by the already difficult decrypting process) simultaneously across all those computers.

A decentralized consensus has thus been achieved by the blockchain due to its very nature of functioning and modus operandi (Raval 2016). As the idea of holding the records and authenticating or validating is not a discretionary power unlike traditional banking or transactional systems, this is the combined consensus of millions of people using it. That is the reason it is appealing a lot more section of the society, as it has no hegemonic influence whatsoever. It is like applying a democratic

framework into the world's economic fabric, which indeed upsets conventional financial players.

II. What is a Smart Contract

"Smart Contracts" term was coined originally by a computer scientist Nick Szabo (Szabo 1997). These documents establish how it is possible for parties to establish contract laws without trusting each other using cryptographic algorithms

"I call these new contracts "smart", because they are far more functional than their inanimate paper-based ancestors. No use of artificial intelligence is implied. A smart contract is a set of promises, specified in digital form, including protocols within which the parties perform on these promises."

-Nick Szabo, "Smart Contracts: Building Blocks for Digital Markets"

A smart contract is executed automatically upon the previously agreed terms, without the need for trusting either parties involved. Everything, every detail of the premise and promise of the contract is hardcoded into the contract formulation and are executed autonomously without any kind of activation mechanism or control. They are autonomous as well as irreversible.

After the advent of blockchains, the realm of smart contract has been completely different. A consensus-based public ledger enabling an overlaying architecture for creation and execution of smart contracts have emerged and is a new black in the marketplace. An example is the Ethereum smart contracts (Tapscott & Tapscott 2016). Ethereum uses near-Turing complete algorithms (Atzei et al. 2017) on its blockchain to overlay the smart contract framework. Without getting into much details of the complexities behind these ecosystems, we shall briefly look at some points to ponder over.

The takeaways from this no-brainer in terms of relevance with BiteCoin Network are the following:

- Blockchains are highly secure, decentralized and are pretty impossible to hack into and tamper with.
- Smart contracts are trustless and irreversible. You can use smart contracts to guarantee your user they get what they are offered without being in a position to trust you to keep your end of the deal. This is executed as per the deal terms, or else the predetermined consequences, including but not limited to, refunds to the payments or reversal of status-quo.

- The decentralized nature of blockchains in general can be used to massively channel computing power that require otherwise tremendous centralized process controls, especially in model optimization, fault tolerance and machine learning.
- An open source protocol will further drive the process into becoming more reliable and trustworthy as the content and the source will be open to audits and security checks.

III. Why Blockchain in food delivery market?

We, at BiteCoin, believe that the next natural phase of development for on-demand food delivery business in the integration of efficient and trustless service networks. The two important aspect of this business model that addresses to add value to the existing market play is reliability and efficiency.

Reliability: On-demand food delivery markets are relatively newer concepts compared to its counterpart food and hospitality industry. However, it is easy to hear about regular customer complaints varying from delayed - even hours of - delivery to cold food to even totally misplaced food item. An effective mechanism to treat this anomaly is to implement customer support mechanisms that allow to partially or fully refund the customer of aggregated payments. This, however, is a tedious task to achieve from an end-user point of view. Moreover, only companies that are well footed have the luxury to fully implement customer grievance redressals.

Here is how BiteCoin plays a vital role. By fully enforcing the delivery mechanism including food control and delivery time on-the-blockchain with smart contracts, the customer do not have to rely on the trustworthiness of the delivery service anymore. You don't get the food on time as promised - you get your money back! You don't get the food you ordered - you get your money back! You don't get the food from the restaurant of your choice - you get you money back! Everything instant without the customer having to go through all the hassles of opening support tickets with the redressal forums. *Yes, that is right - instant and automatic refund if your food doesn't arrive in the promised 30 minutes enforced by smart contracts.*

Efficiency: There are many players in the on-demand food delivery business right now. An estimated 25%-30% commission is the market rate for almost all of the delivery networks as per our market research (see following sections). Even though this seems to be a high rate in the industry, most businesses are on a bleeding edge. They are not able to register profits on their annual returns. A prime factor why this happens is due to ineffective fleet management tools available. They rely only on

broadcast services or mobile applications to get to the available driver who can make the delivery. All of this mismanagement adds to the already heavy overhead running cost of the fleet as independent contractors.

With BiteCoin however, things take a drastic and radical turn. *A paradigm shift is envisaged in terms of network and fleet management efficiency by introducing artificial intelligence (AI) and machine learning (ML) on-the-blockchain.*

First of all, when BiteCoin Network receives a processed order from a customer's cell phone or web app, we calculate the optimum possible route using trajectory planning techniques to move from point A (carrier) to point C (customer) via point B (restaurant). This calculated optimized route is transmitted to the carriers (drivers) on a flag-priority based method. This means that even if one driver is closer to the restaurant than another one, the route is optimal for the second driver, the flag-priority turns the pole to the second driver (the far away one) first before getting to the nearby driver.

Once the driver is located and approved, an optimized route is then modelled using model predictive control (MPC) techniques for time-delay systems to assimilate historic and live traffic data. This gets a fresh model-optimized trajectory. *Fault tolerant control (FTC) guarantees along with the previously calculated route-planning methods will give this model-based method substantial advantage in terms of optimization and efficiency. With our mathematical models including FTCs, an overwhelming 20%-30% overall efficiency can be improved compared to conventional players in the market.*

Vision

“To deliver goodness in every bite and redefine food delivery sector using frontiers of technologies including blockchains.”

Mission

1. To create a platform for food delivery in Paris as the launching city listing a spectrum of restaurants and accepting cryptocurrency as well as fiat currency for payment.
2. To reduce and remove pain points like delays, unoptimized routes, refund issues and wrong item received experienced by consumers of current food delivery apps in the market
3. To implement the most efficient decentralised delivery network and management system using our proprietary AI-induced on-the-chain algorithm. To use MPC techniques and guaranteed state-of-the-art active FTC algorithms using alpha-contracting invariant sets .
4. To implement one-of-a-kind loyalty program using tokens as rewards for users of the app as they make the orders and thus token distribution is monetized.
5. To implement a digital asset exchange trading platform enlisting BiteCoins and other cryptocurrencies right from the beginning with state-of-the-art derivative tools that no competitors have yet delivered. To link the delivery app directly with the exchange platform so that users of the app can sell their BITEs and withdraw fiat.

Market Analysis

I. The French Landscape

E-commerce based food delivery business model has indeed found its stamp on the online spectrum with enough customer base and revenues based on tapping in to transaction channel between the Customers and Restaurants. A bunch of food delivery apps and startups have sprung up across the French capital in last 3 years and slowly food and grocery delivery market is being embraced by Parisians.

Current market players have refined their previous business model wherein they were only acting as facilitators between customers and restaurants and revenue was commissioned based (10-12%). However this required the restaurants to invest in their own delivery fleet and manage them efficiently. This was certainly a disadvantage as it puts a lot of overhead to the restaurant owners.

A new model is in play where the current market players take care of everything from providing orders to packaging to delivery with their own fleet of bikes and cars. And Restaurants have embraced this model, however, they pay an increased commission of 25-30%. Talking to one of the Foodora's clients it came in to light, Foodora have had to suspend their new client additions to their network, giving an indication that the demand in the market is rising. The following are the companies currently operating in Paris market.

II. Statistical findings¹

1. Revenue in the "Food Delivery" segment amounts to US\$3,439m in 2018.
2. The market's largest segment is the segment "Online Takeaway" with a market volume of US\$3,059m in 2018.
3. From a global comparison perspective it is shown that most revenue is generated in China (US\$48,530m in 2018).
4. Revenue is expected to show an annual growth rate (CAGR 2018-2022) of 17.7% in a market volume of US\$6,596m in 2022.

¹ <https://www.statista.com/outlook/374/136/food-delivery/france#>

The above mentioned statistics is based on a study which has the following scope

In scope:

1. Meals ordered online from services that deliver the order themselves
2. Meals ordered online from partner restaurants of special delivery services (e.g. Deliveroo)
3. Online delivery services that only provide a platform for restaurants that run their own delivery service.
4. Online orders that are picked-up in store

Note: revenue figures refer to Gross Merchandise Value (GMV)

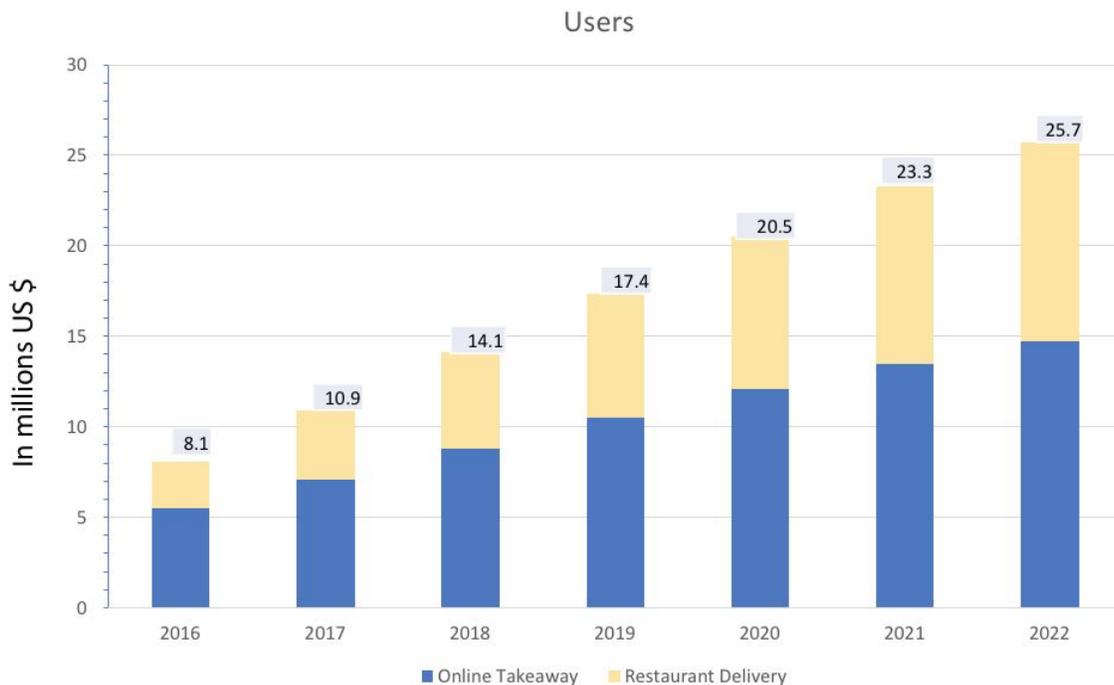
Out of scope:

1. Phone orders
2. Deliveries of non-processed or non-prepared food (e.g. HelloFresh, Deleasy)

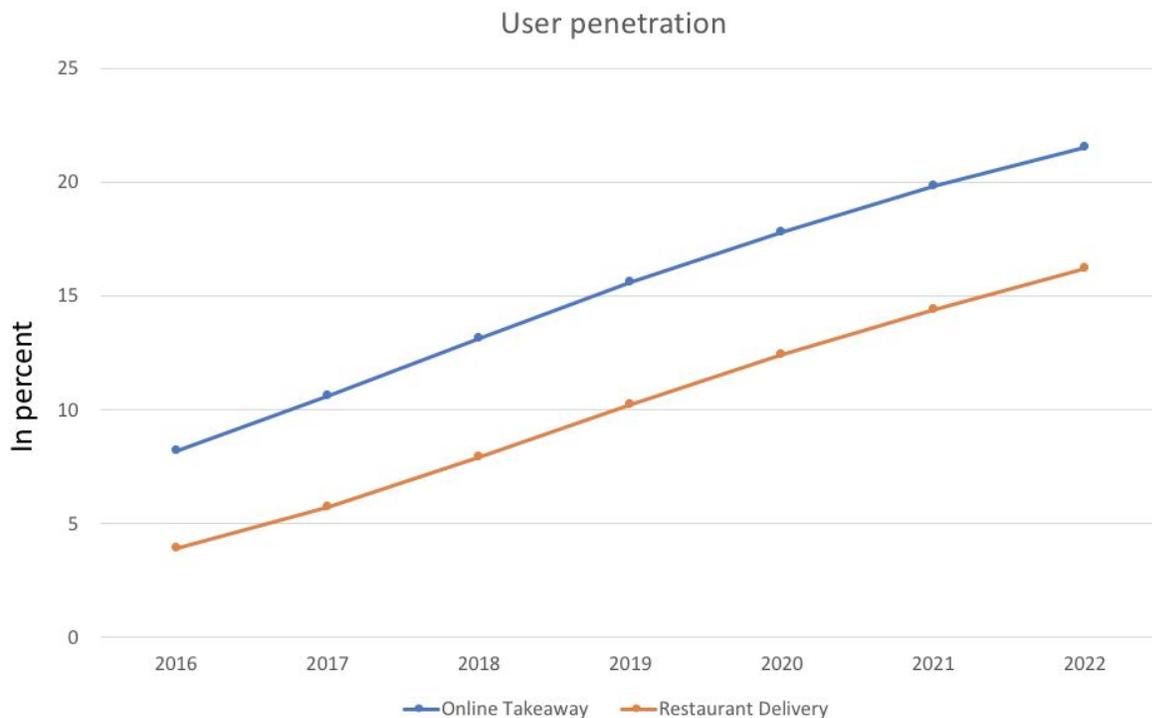
Charts & generic trend indicators based on the study



Revenue in the "Food Delivery" segment amounts to US\$3,439m in 2018.



In the "Online Takeaway" segment, the number of users is expected to amount to 14.7m by 2022.



User penetration in the "Food Delivery" segment is at 18.5 % in 2018.

The trends suggest a growing market within France and particularly Paris and the market has embraced the food delivery services. Having chosen the food delivery app as the sector to tap in to and try to introduce a novel model, the market already has few incumbents contesting in a highly competitive way. Competition in this sector is based

Competitive Analysis

Based on the market landscape in Paris, we have identified the following direct competitors in Paris. Among the players Foodora, Deliveroo, Just eat and Uber eats are considered to be our major competitors. An established network and a business presence exist in the growing parisian market. Restaurants welcome the idea of outsourcing their delivery wing and are willing to list themselves in multiple websites for them to get more orders.

Name	Deliveroo	Foodora	Resto-in	Uber eats	Glovo	Just eat
Type	Private	Private	Private	Private subsidiary	Private	Public
Started Operations	2013	2015	2005	2015	2016	2016
Headquarters	London	Berlin	Paris	California	Barcelona	London
Service	Online food delivery service	Online food delivery from 640+ restaurants	Online food delivery service	Online food delivery service	Online delivery service	Online food delivery service
Key Value	Claims Avg delivery time of 32 min	Fast growth in Europe and asia	263 restaurants across france	Brand image; global player	Delivers food, groceries, medicine and couriers	Operations in 13 countries; Global player
Financials(Turnover - 2016)	\$24,662,863	\$6,606,042	\$6,465,400	N/a	\$1,310,711	\$28,640,541

Business Opportunity

I. A blockchain take on Food delivery App

As per the analysis of the current food delivery sector and at the arrival of the technology which brings forth a game changing value to the architecture of inter networks called as Blockchain - our proposal is a straightforward and a logically followed.

An everyday mobile app where consumers can easily order food on demand from their favourite restaurant and need not worry about any delivery issues. Smart contracts ensures that if the delivery fails due to any unforeseen factors, the money paid to an escrow account by the customer is instantly refunded. Thus the customer is free from making that tedious and frustrating call to the customer care for a refund.

Such an opportunity also calls for an efficient delivery network backed by an algorithm with addresses route optimisation and fault tolerance. As per the study, operational bottlenecks are one of the pressing matters that stigmatize the growth in the industry. This also makes it financially infeasible in the long run for companies and is the reason for dissolution of many of them²³. Our unique system of integration will allow the system to calculate the best route for the delivery personelle to pick the food from the restaurant and get it delivered to the customer, apart from all the perks associated with the loyalty program that will add value and retain the customer.

II. A Connected Exchange Platform

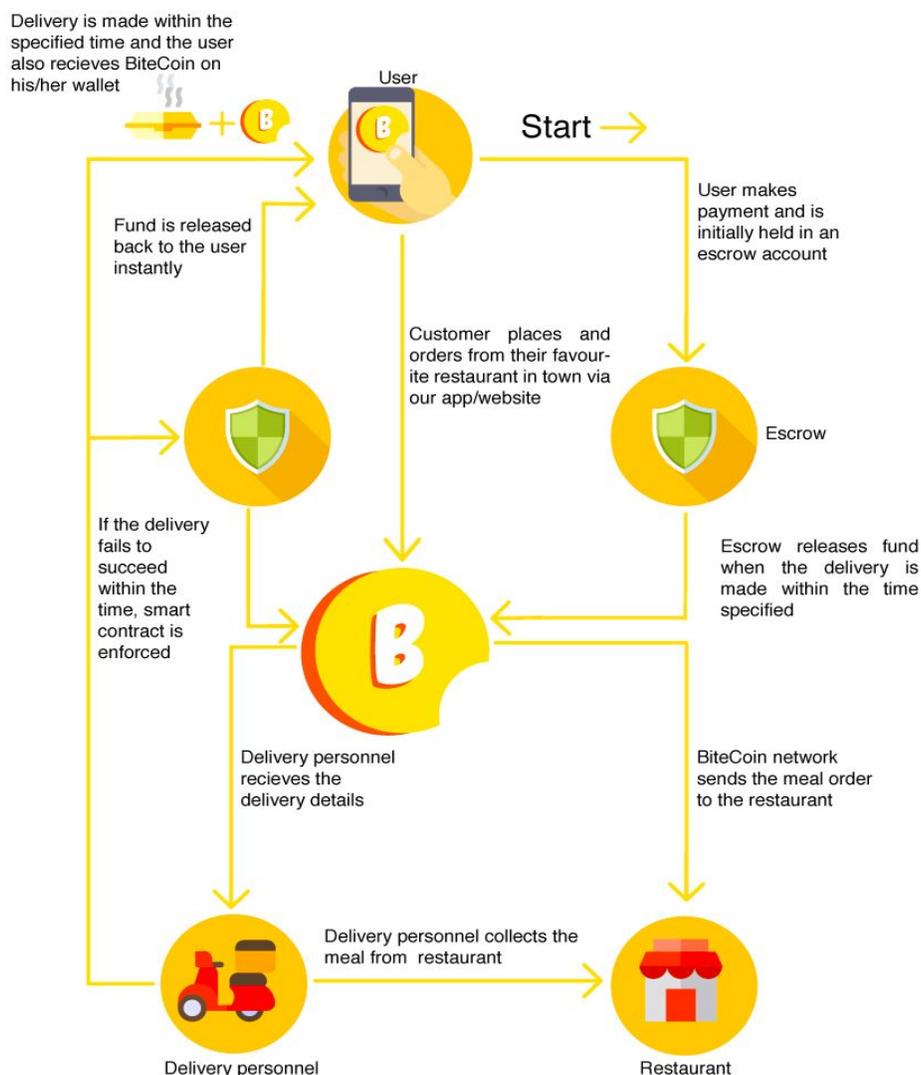
The next logical step is make the loyalty rewards the customers accumulate a convertible and tradable digital asset. Even though the asset is de facto a tradable one, the exchanges that facilitate this feature is not yet available and is not a sure bet. In order to guarantee the tradability of our asset and include new derivative products that no other business model can propose, we intend to launch our own proprietary trading platform christened Bite-X. Our roadmap includes the development of an exchange platform for cryptocurrency trading and facilitate non-conventional derivative product like the *Bite-X Gold*. Details of those products are outside the scope and purview of this whitepaper and is therefore omitted.

² "Tech-Driven Food Delivery Startups Aren't Immune to SF's ... - Eater SF." Accessed March 3, 2018. <https://sf.eater.com/2017/1/9/14214764/zesty-layoffs-tech-food-news>.

³ "On Demand Food Service Sprig To Shut Down — The Information." Accessed March 3, 2018. <https://www.theinformation.com/on-demand-food-service-sprig-to-shut-down>.

Business Model

The BiteCoin App will basically be an aggregator of restaurants in the city of Paris providing the customer with a inventory of places to order their food from. This traditional yet fairly new online business model has seen its success due to the fact that we cheap and ubiquitous mobile phones and ever-growing penetration of the internet. The following diagram represents the business model of the proposed project. A simple representation of a single transaction taking place throughout the customer's journey from order their food from a restaurant to the delivery being made is show below.



I. Business Model Features

Transparency

On-the-blockchain integrated transactions. Anyone anywhere can check the progress, integrity and reliability of the contract terms and how it is enforced on the public blockchain ledger. So, if you order a food, you know exactly everything - what you get, where is your food already, whom and how much your money goes to? Seriously - every last detail that you can imagine.

Safe & Secure

All transactions are fully implemented using state-of-the-art internet security protocols with respect to payment and user data. All our system is secured with a cryptographic-tunneled encryption layer on top of the industry standard SSL/TLS layers of security protocol built-in. We use non-repudiation of origin and destination payment tracks using one-way encryption techniques thereby mitigating the risks of DDoS attacks and using homebrewed enterprise-grade validation techniques using alpha-contracting invariant sets.

Reliability & Robustness

One of the main features of our business model is reliability and zero-trust transactions. You don't have to trust anybody - all your deals (payments, schedule of delivery and reliability) are defined by yourself and are securely enforced by autonomous smart contracts. Everything is done by the smart contract - that means - if you don't get what you ordered or if the delivery isn't executed on time, you get your money back instantly. Our smart contract enforces this method and the escrow-on-the-blockchain ensures that either you get your item on time or your money is refunded instantly.

Unique selling point & Competitive advantage

We are the world's first crypto-backed food delivery network. Our unique food delivery network brings the best of both worlds. The ease of ordering food online and the power of cryptocurrency and blockchain combined to provide a unique and a rewarding experience to users in the online food ordering sector. Customers now

can earn tokens as they make orders via our website or mobile application. Orders are maintained in an escrow account and is only released if the delivery is performed within a deadline. Every order made by user will be rewarded with our new token BiteCoin into their personal wallet which they can later trade or cash out in the future.

- A redefined customer loyalty program

Retention of customers has always been a traditional aspect of any business and to a great extent an indicator of a successful venture. Traditional loyalty programs have its fair share of contribution to revenue generated by any business and acts as a catalyst to improve customer acquisition and retention and thus repeat business follows. Points,miles,likes,claps and countless other variables can be found in every E-commerce business to capitalize on consumers to come back and re-order a service.

Loyalty programs have given e-businesses the following advantages

- Customer retention
- Increased customer satisfaction
- A tool to garner insights using analytics
- Increased revenue

Our mission includes redefining the very structure of such loyalty programs whereby rewarding our customers by not just mere digits on a screen, rather by rewarding them with our token based ERC20 protocol which would be listed in our own exchange platform and many others. Such is a the extent of uniqueness about our proposition of value to our customers.

II. Technical Features

The detailed technical feature listing will be released as a scientific publication and/or as a patent. In due course, we will also add a *bluepaper* to our knowledge base to inform the reader on details of the technical framework we plan to implement. However, we would like to present the core premise of our technical application here with this whitepaper. This helps the reader to get an understanding of the frontier of research we undertake at BiteCoin to enrich our product and potential.

In place of the regular technical installations like the smart contract details and architecture, which we conveniently omit due to non-relevance as they are benchmarked and standardized, we will describe briefly two of the major concepts that we plan to implement in our model.

The following part in this section requires the user to have a minimal understanding of difference equations, invariant sets, state-space representations and mathematical modelling of dynamical systems. If you are not comfortable with those terms, please proceed to the next subsection.

(a) Optimization for D-Invariant set design

A dynamical system (such as a car or bike following a guided control reference line - in our case the biker that is following the delivery instruction route map) can be represented in terms of mathematical model description. This model can be used to perform a variety of analysis on an implementation level. Stability, robustness, control algorithms, control performance, etc. to name a few. Set valued analysis are a major research frontier in this framework dealing with aspects of optimization, model predictive control (Mayne et al. 2000), reference governor design (Stoican et al. 2012), etc., to name a few.

In our approach to optimizing the trajectory from *pointA* to *pointC* via *pointB*, we use state-space representation of mathematical models to describe these dynamical systems in terms of delay-difference equations.

Let us consider the discrete-time delay difference equation of the form

$$x(k+1) = A_0 x(k) + A_d x(k-d)$$

where $x(k) \in \mathbb{R}^n$ is the state vector at time, $k \in \mathbb{Z}_+$, $d \in \mathbb{Z}_+$ is the fixed time-delay. The matrices $A_0, A_d \in \mathbb{R}^{n \times n}$ are matrices of appropriate dimensions and the initial conditions given by $x(-i) = x_{-i} \in \mathbb{R}^n$ for $i \in \mathbb{Z}_{[0,d]}$.

Theorem: There exists \mathfrak{X} a polyhedral D-contractive set described by its minimal half space representation and containing the origin:

$$\mathfrak{X} = \{x \in \mathbb{R}^n \mid Fx \leq 1_{n_i}\}, \text{ with } F \in \mathbb{R}^{n_i \times n}$$

if and only if there exists 2 real matrices $K_j \in \mathbb{R}^{n_i \times n}$ for $j = \{0, d\}$, with non-negative elements and a positive $\varepsilon \leq 1$ such that:

$$FA_0 = K_0 F$$

$$FA_d = K_d F$$

$$(K_0 + K_d) 1_{n_i} \leq \varepsilon 1_{n_i}$$

The limit case $\varepsilon = 1$ represents the necessary and sufficient condition for the existence of a D-invariant set.

Proof: Please refer to a peer-reviewed paper of our team member Dr. Laraba ([Laraba et al. 2016](#)) to understand in detail about this approach.

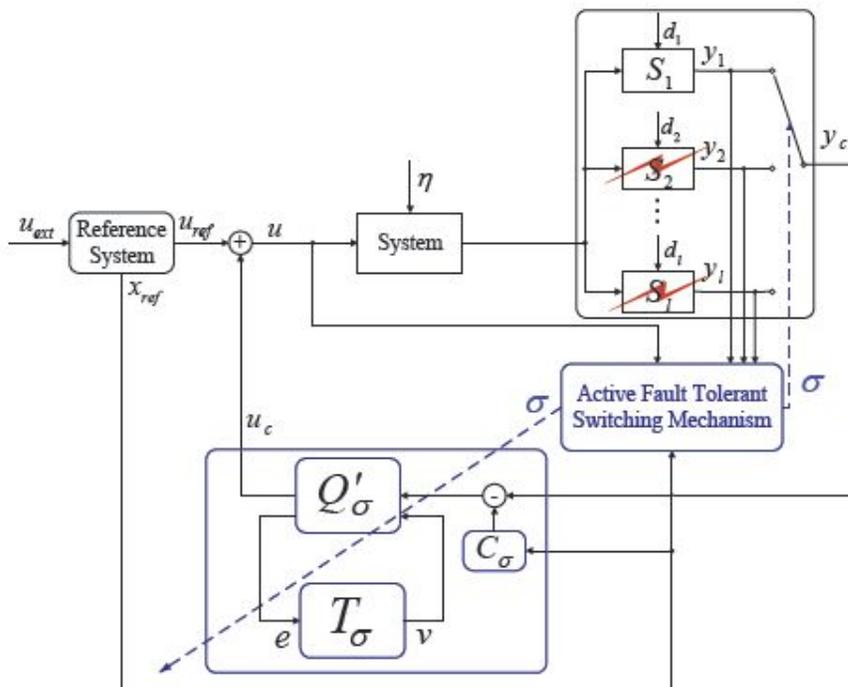
By modelling our dynamical system in terms of delayed-systems, we can formulate ways to optimize the trajectory of the system using these set-based techniques. The bilevel optimization approach used in the above theorem can be used to design the D-invariant set of the time-delay system thereby incorporating all the parameters relevant in this scenario. Once we model the method with utmost mathematical precision, the utility of invariant sets (like stability and robustness as no trajectory that enters into an invariant sets leaves the set at any future point in time) can be used find optimal and deterministic control techniques as well as fault tolerance guarantees.

(b) FTC guarantees in switching stable design

Another highlight of our model will be switching systems. Imagine that there are multiple but different optimized algorithms that work when you determine your route. How do you know which one to use or which is the most cost effective one. Here is where the switched systems come into play. We optimise the model and implement a predictive controller to run on a state (or observer) feedback mechanism and can switch arbitrarily across multiple chains of mathematical models without losing stability or affecting the robustness.

Imagine there are two optimal routes the system has injected into the fleet management app. The blockchain uses an online-optimization and MPC algorithm to start delivering its product. What happens if any one of the parameters are faulty that optimizes the trajectory? That is where switching-stable robust systems come into play with FTC guarantees. Normally arbitrary switching between two otherwise independently stable systems could arise to heavy anomalies and instability in the feedback system. Switching-stable systems are the new black in those cases ([Seron et al. 2008](#)).

However, with our built-in FTC module and switched-stable mechanism with Youla-parameterized dynamic controllers, faults are guaranteed to be detected and isolated and tolerant control systems are planted in place. Check the following state flow for a brief idea.



The FTC module is termed ACTIVE as it will be using live optimization using on-the-blockchain monitoring algorithms. Please refer to a peer-reviewed paper of our CEO ([Kodakkadan et al. 2016](#)) for a detailed information of how this technique is implemented using invariant sets.

III. Value Proposition

What influences the Investment choices of person are highly based on the value that is projected by a plan or an idea. The crux of investment is all about the value which the project proposes for the stakeholders and participants involved in the business chain from producers to buyers and back. Our proposed value chain consists of four major stakeholders(direct & indirect) in which BiteCoin plays a central role where value is created and shared among the transactional participants.

Direct Stakeholders:

- Restaurant Owners
- BiteCoin App users
- BiteCoin Network

Indirect stakeholder:

- Global cryptocurrency community

BiteCoin adds value to these stakeholders in the following manner:

(a) BiteCoin App users

User of a regular food-delivery system uses it to order food and nothing more. With BiteCoin, the two main unique features that we add to the otherwise normal customer are:

- The customer can order in confidence. With delivery bottlenecks for companies, it is often the case that food delivery services won't fulfil their promises. They are late or even that the meal is not what the user ordered for in the first place. With BiteCoin, users can now order in confidence. If any of the terms of supply (including, but not limited to, time of delivery) are broken, the deal will automatically be declined by the smart contract and the user gets their money back instantly.
- The customer gets an equivalent amount of BiteCoins, which they can save, use it for trading with other cryptocurrencies in listed

(b) Restaurant Owners

We plan to ensure that we are fully transparent in all our undertaking including our business model, which is why, we declare the financial projections and estimated revenue in our whitepaper. Industry-wise standards for restaurants are biweekly or monthly settlements. That is, if you are a restaurant owner, and you have a tie-up with a delivery service. Once a customer orders food, you have to wait for two weeks up to one month to receive your payment. With BiteCoin, it is simply instant. Our payment is released (minus the network commission rate, currently at 30%), to the restaurant owner on a per-day basis. BiteCoin network will deduct a 30% commission on all orders as per the prevailing industry standard rates.

(c) BiteCoin Network

Revenues generated by the company is mainly from channels commission ranging from 25%-30% of each orders by the users. The revenue channel doesn't stop there. Our project roadmap includes the development and deployment of our own exchange platform Bite-X, listing BiteCoins and other

major cryptocurrencies. Thereby providing us with an additional revenue channel from transactional and commissiarry profits from the exchange platforms An exclusive paper discussing the features and functions of the Bite-X platform will be published soon.

(d) Global cryptocurrency community

A huge section of the population is not yet familiar with the cryptocurrency ecosystem. Our plan is to bring them closer to using, trading and getting experienced in dealing with cryptocurrencies, especially BiteCoins.

Apart from having a large network of food lover getting BiteCoins and them following the cryptocurrency knowledge curve to get more efficient in their trading, we are also key suppliers to the blockchain ecosystem.

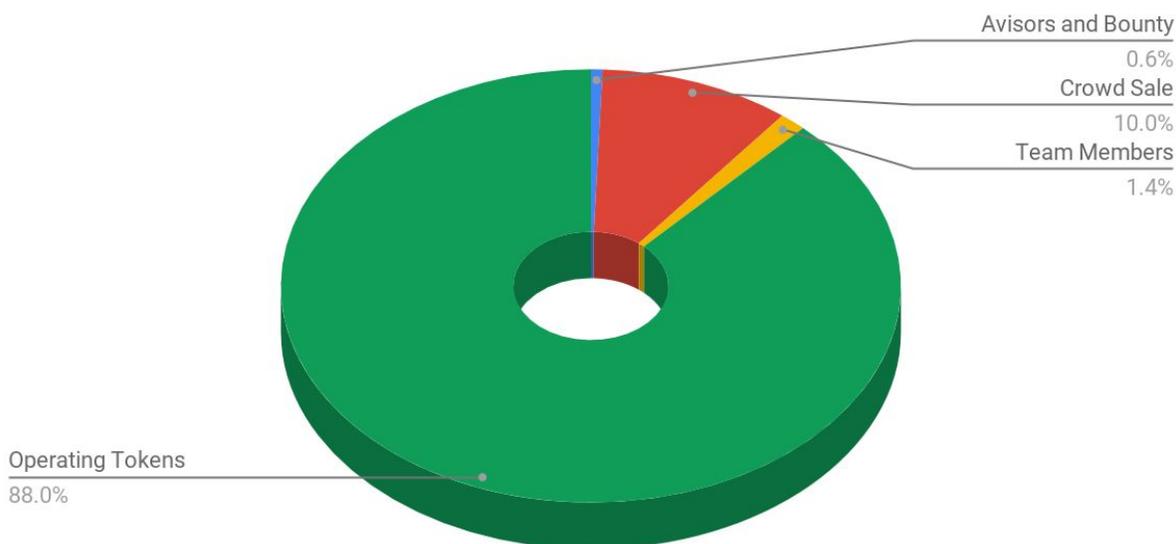
- Our payment system will be fully decentralized and will be handled at the end node of individual users.
- Once the payment has been made (both crypto and fiat), it will be held in an escrow account and will be released only if the delivery is made in time all enforced by on-the-chain smart contracts.
- Once the network receives the order summary, our cutting-edge algorithm is executed on-the-chain to optimize trajectory planning, delivery implementation, fault tolerance and live tracking.

And thus our projects represents our proposed contribution towards the blockchain and cryptocurrency community. We believe that this project can substantially can bring about increase of cryptocurrency users and blockchain awareness. Such projects is what is imperative to the survival of the cryptocurrencies which has been competing for its rightful space in transactional economics against fiat currencies for the past nine years.

Tokenomics

I. Key Metrics

Token Distribution



Crowd Sale

5,000,000,000 BiteCoins (10% of total coins) will be sold in the crowd sale. This includes all the tokens that the public can acquire from outside the normal token emission using the delivery app. This also includes any private sale deals the BiteCoin will execute.

Team Members

700,000,000 BiteCoins (1.4% of net tokens) will be reserved for the team members and will be locked for one year from sale or transfer.

Advisors and Bounty Hunters

300,000,000 BiteCoins (0.6% of total available tokens) will be awarded in bounty and for advisory board members

Operational Tokens

44,000,000,000 BiteCoins (88% of total tokens) will be reserved for the operational utility and shall be held in publicly audited escrow accounts. As we have detailed in the business model, we will issue 1 BiteCoin to the end-user for every food purchase made for 1\$. Therefore, forecasting an estimated turnover for multiple cities in launching over the next 10 years, we will use the tokens to issue to the app users. However, the tokens will be held in a publicly verifiable and audited escrow account and will only be redeemed against purchase invoices enforced by the smart contract.

II. Utilization of Proceeds

Capital Utilisation

(Soft Cap Target: \$5,000,000)

Corporate Head Office Establishment: \$300,000

- Estimated move into corporate head office in Paris: \$60,000
- Administration and Logistics of office set-up: \$40,000
- Office space advanced amount, notary, rent agreement and legal: \$100,000
- Workstations for employees: \$30,000
- Office interiors, utility and miscellaneous : \$70,000

City 1 Deployment: \$1,300,000

Satellite office for Fleet management: \$100,000

Initial Launch Cost: \$700,000

- Minimum Viable Product (MVP)
- POS hardware (tablets for 200 restaurants)
- Packing and Handling built-in Kit (20 interchangeable kits)

Marketing Expenses: \$500,000 bucket

- Online Marketing (Social media, paid promotion, influencer marketing, SEO, content marketing, video and infographics and press release) 40%
- DOOH & OOH (Digital Out-of-home and Out-of-home) 40%
- TV/radio advertisements 20%

Recurring Operational Expenses

(projected for an aggregate of 1 year) : \$4,740,000 (See section Finance)

Team



Dual MS in Space Science and Technology. Doctoral research in University of Paris-Saclay in Automation and Control. Published several papers in peer-reviewed journals and conferences on Fault Tolerant Control, Invariant-set based Fault Tolerance guarantees and Switching-stable control techniques.

LinkedIn: <https://www.linkedin.com/in/abidrk>

Twitter: <https://twitter.com/abidrahmank>



A network engineer who is specialised in Entrepreneurship, Strategy and Innovation from Skema Business School, Sophia Antipolis, Valbonne. Having worked in multiple disciplines, Aftab spearheads the project with strategic positioning and leadership qualities.

LinkedIn: <https://www.linkedin.com/in/aftab-mohiyudeen/>

Twitter: <https://bitecoin.network/twitter.com/AftabCP>



Ameen is an Electronics and Electrical Engineering graduate with special skills in Management and Product Development. With a huge experience of initiating few startups himself, he has joined the core team of BiteCoin. Founded two app development companies one in San Francisco and one in Paris.

LinkedIn: <https://www.linkedin.com/in/ameenrashad/>

Twitter: <https://twitter.com/ameenrashad>



Tahar is a development research scientist with a doctorate from University Paris-Saclay. His research interests are Model Predictive Control, Time-delay systems and invariant sets, D-invariant sets and control optimization. He has published several papers in peer-reviewed journals in the domain.

LinkedIn: <https://www.linkedin.com/in/mohammed-tahar-laraba-4a046098/>

Risk and Resilience strategies

No business proposition is complete without talking about its risk and resilience strategies. As they say “expect the unexpected”, which provides a maxim for any entrepreneur to anticipate any form of external or internal threats which compromises the security and operations of the company thus affecting the sales projection and business forecast.

Security

Threat: Anticipation of digital threat is always a risk in the online spectrum.

Strategy: The only way to mitigate the effects is to constantly review security protocols in place and update them regularly.

Competition

Threat: Competition is inevitable in any business model.

Strategy: The method we use to showcase ourselves is the principal point of merit. Our USP (unique selling point) plays an important part geering towards our competitive advantage

Threat from regulatory framework in operating countries

Threat: Cryptocurrency being a fairly new and being an unregulated entity by the majority of the markets worldwide is highly prone to regulatory policies. The EU have embraced the blockchain technology and talked have explicitly talked about its remarkable potential to improve certain existing technologies and nurture innovation. However, the usage cryptocurrencies are still under immense debate and is still subject to hysteria and confusion among the general public.

Strategy: The backbone of our project is a functioning and operable business model which will not be affected if government regulations hinders cryptocurrency usage at any of our operating cities. In worst case scenarios, we can still retain our business as a simple food delivery network constantly fine tuning our operational efficiencies to meet demands of the markets.

Finance

Revenue forecast

1. Parameters
 - Least expected sales generated from one restaurant per month: \$2500
 - Restaurant sign up target for first year: 200
2. Net sales revenue fiscal year-n: \$15,000,000
3. Industry standard commision rate: 30%
4. Goss projected profit, fiscal year-n (2 x 3): \$4,500,000

Recurring Operational Expenses (projected for an aggregate of 1 year) : \$4,740,000

Core development: \$2,900,000

- Core application
- Web App
- Integrated Mobile devices app
- Client side and delivery side apps
- 3 Core Developers, 1 project Manager, 1 Testers, 2 math researchers

Office Administration Personnel: \$840,000

Hosting, Cloud services and other Internet architecture: \$200,000

Delivery Personnel - 12\$/hour and 200 man-hours per day: \$800,000

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