



Juggernaut

Powering The On Demand Economy

Rise of the Sharing Economy has led to the need for on-demand platforms that help Entrepreneurs/SMBs/Enterprises bring their ideas into transacting platforms.



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THE IMPORTANCE OF LOGISTICS

Logistics are an important facet of the on-demand scenario. Many online platforms specialize in bringing the demand side and the supply side together – often supplying the service ‘on-demand’, at the consumer’s convenience.

This convenience manifests in many forms. It blurs the boundaries of time and space in order to deliver any service, in the comfort of the workplace, the house or whatever the target area may be. This involves a great deal of mobility and adaptability, primarily dealing with logistical concerns.

There are a smattering of variables when it comes to logistics.

The optimal route, the right weather, the right packaging, the right mode of transport, the right speed – and the timely arrival of the service once the demand has been conveyed is essential for EVERY delivery.

Amplify that to a several hundred deliveries being made every day and you’ve got quite a task on your hands.



Foreword

Today's competitive business landscape can only brook so much in terms of trial and error. We know the reason why everything is calculated, planned and sketched out when it comes to big business decisions. This goes double for the on-demand economy. This new economy, 'gig economy', sharing economy (a variety of names can be used) is also competing with traditional models of operation, in addition to cultivating competition within its own participants. It has been cited to be volatile, risky yet fast-paced and exponential for growth. Knowledge is the keyword here. Sure, we could give you all the information but not much would be actionable. Making sense of various elements, like the models operating in this economy, the interplay of variables and comprehensive solutions are essential for your journey as an entrepreneur in this economy.

This book is for those who wish to enhance their knowledge about the on-demand economy. It enables them to roll up their sleeves, grit their teeth and face the challenges it has to present. It deals with developing on-demand solutions to extant businesses, or developing one from scratch.

Retrofitting is a big part of the task. As one of the leading online platforms and technology solution providers in this realm, we do have a degree of expertise when it comes to these aspects. Reading this book will be helpful in opening your world to the advent of on-demand. Welcome to the business of revolutionising business with NextJuggernaut.





This can only be aided by cohesive mapping and geocoding solutions on a powerful mobile platform.

There are many market segments in the on-demand economy that employ logistical services.

Some of them are:

1

On-demand delivery: the key sector for this.

2

On-demand transport (Personal): exemplified by Uber.

3

On-demand freight movement: Any sort of cargo or goods transported en masse.

4

On-demand Home Services: From fixing a doorknob to getting furniture.



ON DEMAND DELIVERY

The on-demand delivery segment consists of companies and service providers that give door-to-door delivery, dealing in an array of products.



These products can roughly be detailed as follows:

Groceries: perishable and otherwise ●

● **Food Delivery:** Ready to Eat services, or ready to cook deliverables

Restaurant Orders: Middlemen facilitating gourmet class cuisine in your living room ●

● **E-Commerce:** Books, Tech Gadgets, Clothing, Stationery and many more

Delivery Services: They'll take whatever you want from A to B ●





ON DEMAND TRANSPORTATION

P E R S O N A L

With the on-demand focus on the service and not really ownership of said service – mobility becomes key in the transportation sector for many of those who'd rather not own a car.

You just want to be mobile, at your convenience.
These services can be classified into:

- **On demand taxi services:** Hail a taxi, guaranteed
- **On demand carpooling services:** Find those with the same destination and share the car with them
- **On demand bicycle, motorbike and car sharing:** Depots of vehicles with pickup and drop points – reservation based



ON DEMAND FREIGHT MOVEMENT

Welcome to the era of optimized shipping and delivery. There are now tons of services that will strive to ease routing, shipping and facilitate several relays in order to move cargo and goods seamlessly.

These methods can be manual, but given the spirit of the on-demand economy, the technological alternative beats other options by a great margin, preferably in the form of a software or an algorithm.

There are three types of services outlined in this segment:

Carrier-shipper matching (Manual Broker):

Companies need goods delivered?
Services match them to appropriate carriers,
albeit manually.

Algorithmic and Software based-matching for local freight:

The same type of service, facilitated by a
software or algorithm. These services usually
deal with low volume, high mobility types of
goods.albeit manually.

Algorithmic and Software based-matching for international, overseas freight:

Pretty self-explanatory, these services
increase profits and minimise travel time due
to their high matching capacities and routing
solutions.



ON DEMAND HOME & BUSINESS SERVICES

Finally, we arrive at the fourth section. The services in this segment specialize in connecting home service providers to the right customers.

Laziness can be very real with the sheer amount of service that can be delivered to your doorstep.

Here are some broad categories for you to realise the array:

1

Specialization Services:

Repairmen and maintenance of specialized equipment, on- demand.

2

Home Upkeep and Refurbishment, and Care:

All varieties of home repairs, painters, babysitters and doctors.

3

Animal/Pet Care:

The modular, busy family can still have a pet if they have the access to these services.

From grooming to walking your dog, there's a person on- demand for all these needs.





ON-DEMAND CUSTOMER SATISFACTION

So you as a businessman/entrepreneur have decided to make your entry point in any of these industries that we mentioned above. Perhaps many of these, if you're that ambitious, and there's nothing wrong with that.

The next sections will focus on certain elements to look out for when you decide to construct your set up. To make things easier, we've outlined a set of these elements in simple terms.

Broadly speaking, there are two areas to be focused on:

1

Current concerns and delivery capabilities with reference to the customer.
Deals with

- Locating the customer
- Demand and supply matching
- Efficiently getting the service to the customer
- Going beyond customer expectations

Predictive and post-delivery analysis, to troubleshoot and improve performance.
Deals with

- Maintaining quality and safety standards
- Disrupting extant markets

2

We shall explain each point cohesively, to give you a holistic view of the on-demand scenario, with reference to the four industry segments mentioned in the sections earlier.



LOCATING THE CUSTOMER



Well, now you have a service in place, and need to track down all your customers accurately. This is in order to get the desired service to the intended customer.

This involves integrating your service with mapping solutions that are reliable, accurate and adaptive. For various segments, the question for customer location will change.

Here is the low-down.

ON DEMAND DELIVERY

Where will the package be delivered?

ON DEMAND PERSONAL TRANSPORTATION

Where is the person who has requested the car, taxi or other personal mode of transportation?

ON DEMAND FREIGHT MOVEMENT

Where does the cargo need to be picked up from?


ON DEMAND HOME SERVICES

Where is the home that requires the service?

If your mapping solution can answer this question accurately, in real time, then much of the work is already done for you.

Most of this is done with the process of a mapping, or geocoding software. You can either opt for Google-based services for this, use a public dataset if your government has an accurate one, or pick from other services like MapQuest.





Your customer may enter any location – it is the job of your software to locate them accurately so that you do not miss, misplace, delay or deny delivery to the consumer.

Geocoding is the translation of entered co-ordinates to a location on Earth – that's how mapping softwares work. The more detailed, filtered and updated your dataset, the better the mapping process is likely to be.

Remember, consumers have the benefit of doubt. Your app needs to be simple to operate, must account for misspellings, duplicate addresses and have powerful triangulation capabilities in your target area.

Your software also needs to make crucial distinctions between different types of housing, and commercial areas (shopping and business complexes require indoor mapping for accuracy) as compared to private ones.

Lastly, the software or solution needs to be adaptive. What this means is simple. There is every chance that there will be extraneous, random conditions that occur (heavy rainfall, traffic etc.) on any given day. The app needs to be able to account for them, and provide the best route for efficient delivery.

Zip-code matching etc. should also be integrated for the determination of the best areas for pickup and drop in times of traffic or even something like an erroneous address.

Thus, in addition to geocoding, there are indoor mapping, 3D rendering and augmented reality-based softwares doing the rounds that you might want to pick from. Technological integration is extremely necessary, as becomes apparent in the on-demand economy.



DEMAND & SUPPLY MATCHING

2

Now that you have a mapping solution in place, let's talk delivery, and getting the service across – keeping the supply in mind. This involves another set of variables that need to be crunched, with different concerns in every segment.

ON DEMAND DELIVERY

- Where is the store, or the restaurant where the delivery is coming from?
- Where is the most ideal delivery agent located, in terms of maximising efficiency in terms of time?

ON DEMAND PERSONAL TRANSPORTATION

Where is the closest car, bike or mode of transport that has been requested by the consumer?

ON DEMAND FREIGHT MOVEMENT

Where are the trucks or other delivery mechanisms that are most suited to relay the cargo?


ON DEMAND HOME SERVICES

Where is the closest specialized worker in terms of the service requested?

Similar to locating the customer, mapping here will deal with geocoding to connect the customer with the type of service required.

As you can see, there are some segments that may involve stationary elements, but every force here is largely mobile in its scope. Thus, your solution needs to be dynamic and account for some complex scenarios.





Take the example for a cab fleet like Uber – here, all of your operators will be mobile, so you need to intimate the customer with an accurate ETA, and direct the driver to the customer in the most efficient manner possible.

For delivery, your software will need to determine the availability of the product before mobilising operators, who will also be filtered based on how they are placed. Home Services needs the specialised contractor to reach the customer's location optimally – the supplier is guided to the consumer.

Hubs for freight delivery and car rental purposes need to be accurately mapped with reference to the consumer, so that they can determine the closest hub easily. For freight deliveries, optimal route mapping with external conditions factored in is extremely crucial.



GETTING TO THE CUSTOMER

3

The demand and supply have been matched – now it's time to get the service across. How does one go about doing that?

This is perhaps one of the most crucial stages as it requires a lot of fine-tuning on the go. Routes to and from the customer are full of conditions that we are not aware of, but still need to account for.

Here is the set of concerns as per sector:

ON DEMAND DELIVERY

What is the most efficient way of targeting all delivery locations in a given timeframe?

ON DEMAND PERSONAL TRANSPORTATION

What is the fastest way to the customer who asked for transport?


ON DEMAND FREIGHT MOVEMENT

What is the fastest route for getting to, and transporting intended cargo?

ON DEMAND HOME SERVICES

What is the fastest way for the contractor to clear all his/her house-specific requirements in a given timeframe?





Here, the focus should be given to a solution that does not overtly let drivers rely on faulty/erroneous knowledge of the route instead of the mapping solution that you will develop.

Multiple pickups indicate greater complexity. Your logistics solution needs to incorporate the fastest route through all of these, and adjust accordingly. This is pertinent for pooling services, delivery and contract based services.

Freight movement is often plagued with the dangers of long distance travel – height maximums for bridges, varying tolls and governmental policies as concerns particular goods and services. If not considered, the delivery can be compromised drastically.

Here, real time AND past data needs to be overlaid in order to define the most optimal route.



GOING BEYOND CONSUMER EXPECTATIONS

4

The key to a competitive edge is pretty obvious: you need to go beyond what the consumer expects. For varying segments, consumers ask different questions – but the difference is only paltry.

The main concern is often related to ‘How fast?’ and ‘In what condition’. If you can deliver the service within the intended timeframe, or even well-before it – return consumers are ensured.

The trick, however, lies in managing crises when you cannot deliver – and the steps you take for compensating your consumers.

Here is the segment-wise concern breakdown:

ON DEMAND DELIVERY

When will the package be delivered?

ON DEMAND PERSONAL TRANSPORTATION

When will my transport arrive?

ON DEMAND FREIGHT MOVEMENT

When will the cargo reach the intended destination?

ON DEMAND HOME SERVICES

When will the contractor arrive?





The most important factor here is tracking.

Consumers need validation. One of the main concerns for reluctant participation in the on-demand economy was cited to be 'unreliability'. After all, the fact that a tangible service or product will come to you in the perfect condition, in the perfect timeframe was unheard of

– especially when you did everything 'online', in an intangible digital realm.

Thus, much of this validation comes in the form of tracking the status of the order and enabling transparency.

There are many ways to go about this, but a combination of these ways is ideal. ETA's are often given for a driver's arrival time, and are relatively simple in terms of application.

Connecting the carrier to the customer is important too, if the mapping solution is not entirely accurate, or the consumer's end is giving trouble (net connectivity loss is extremely feasible). Otherwise, the consumer should be able to monitor progress, in any event.

Reminders are essential for the consumer's peace of mind – 2 minutes away, or 7 minutes away – an escalating system in place is always desirable. This has SMS based, email based and several other modes in which a solution can be reached.

Automation is key here, as having personnel dedicated to these tasks will only result in a waste of time and resources. There are powerful alternatives that can handle scheduling and reminder-oriented tasks for you in a very satisfying manner.

For emergency situations, automation helps by taking the first step in establishing contact. The parcel/driver/service delay needs to be communicated to the consumer immediately – and then, adequate steps taken for compensation purposes. The next delivery can be discounted, or an added item given – perks and reprisals are an important step to building a healthy relationship with your consumers.

Deviations in driver route, driving through real-time traffic and waypoint sequencing needs to be up to mark for efficient navigation and delivery.

All of this can also be avoided with providing the carrier or delivery contractor with predictive information about the route – so that they may start earlier than the normal time, eliminating those losses.

All of this scales up to a well-oiled logistics system that aims to deliver before indicated time, tracks indicated time, and in the rare event, handles emergencies.





PREDICTIVE ANALYTICS

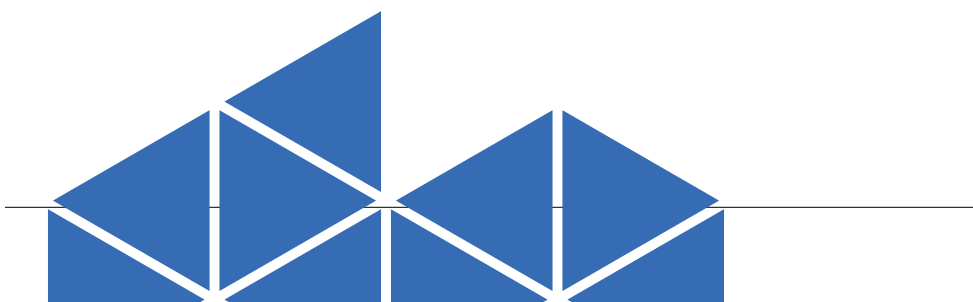
This section covers the predictive sections of your business – how can you improve things for the future, given the conditions you can assess from the present? Data Analytics and Business Intelligence become important as they provide insights into the industry, crunch internal stats and come up with solutions that streamline and evolve your business.

We will also put this through the lenses of different industries with respect to two indicators for performance – Standardization (Safety, Quality) and optimal asset utilization.

When the business is truly successful in the on-demand sphere, it becomes an industry disruptor. This is synchronous with the advent of revolutionary, powerful technology that disrupts how business operates in the industry.

We provide certain guidelines for constructing your business and guiding it for one singular purpose: shattering preconceived notions of how things are operated, helping the segment experience a revolution through the adoption of this technology.

The questions outlined here per segment are for YOUR perusal and understanding – and not the customer's.



TOP-NOTCH MAINTENANCE

1



The moment of reckoning doesn't really arrive for a business until it reaches a comfortable position in the market. However, it is still vulnerable – maintaining the quality of your service is crucial. The other big facet is safety.

On-demand exemplifies the co-operation of strangers united by technology and purpose. It

dictates that there is an underlying risk that the consumer and the fleet operator take when

they place their faith in the system, or when they interact with human parties that they never have before.

As the facilitator of these services, a great deal of responsibility will have to be shouldered

by you – you NOT owning assets related to supply and demand do NOT make a difference.

The consumer is bound to hold you accountable for discrepancies, and the business must rise to the occasion.



There are various safety and performance related concerns that can be laid out per segment, as follows:

- How safe is the delivery process?
- How can it be improved?

ON DEMAND DELIVERY

ON DEMAND PERSONAL TRANSPORTATION

- How safe are the modes of transport we provide? (Includes agent drivers and the
- How can we maximise customer-to-ride ratio throughout the day?
- How do we maximise asset utilisation?

- How safe are our cargo carrying vehicles?
- How can be maximize cargo carried (load size etc.)?
- How do we maximize asset utilization?

ON DEMAND FREIGHT MOVEMENT

ON DEMAND HOME SERVICES

- How can we maximize safety as concerns contractor-consumer interactions?
- How safe is the transportation process to each house?
- How do we maximize asset utilization?



Asset Utilization refers to the process of using all of one's available resources, or assets, to turn in a profit.

This process is aided immensely by technology because it is hard to keep in mind the interplay of variables when running a business in any of these segments.

For example, the on-demand transportation agency will involve you managing time by factoring in safety violations, refuelling stops, average driving speed, and car type and so on – the assortment of variables can be daunting.

Safety is also mapped in tandem with traffic violations, speed limit based restrictions, height-weight-length restrictions, hazardous materials and incidents on the road (past and present) and many others.

Driver speed and behaviour comparisons can also be run by software, in order to create a set pattern. This pattern dictates what kinds of speeds are unsafe, and provides a guidepost to reasonable driving while also not compromising on efficient delivery, balancing the scales.



DISRUPTING INDUSTRIES

2

Industry disruption is primarily about two things: Innovation in method, and innovation in technology.

Technologically speaking, the rupture is much greater. To give you a very good example as to how industries can be disrupted easily by evolving tech, we shall use the logistics sector itself.

We've mentioned automation to you before. Let's detail it a little for understanding disruption better:

Automation, from the Greek word 'Automos' is the process of introducing something that acts according to its programming, or set protocols – and hence, does not require external interference for its operation.

Automation in the industrial age referred to the inclusion of machines in factory based operation, and expanded to include machines on all other platforms – like ATM's and other tellers.

Now, automation exists in all aspects of the industrial process, from manufacturing to selling, from maintenance to repair and from design to optimization.





AUTOMATION IN LOGISTICS

Self-driving cars are no longer science fiction. Tesla motors, for example, has made various leaps and bounds in this sector.

The NHTSA also has a scale for driving automation: Zero through 4b, where Zero stands for the driver having full control, and 4b providing 'passive driver experience' with optimized mapping and no intervention by the driver. Many trucks, for your information, already have a level 3 system in place which gives drivers a 20 second warning to intervene in case the software cannot.

Tesla's vaunted system can brake, accelerate, turn effortlessly, read signs and road markers and also avoid certain obstacles as more and more tests run by. It has amassed significant data – over 47 million autonomous miles driven, indicating its effectiveness.

This disrupts the industry significantly.

First, It has a lot of benefits – reduced driver stress, costing, safety, efficient parking, fuel efficiency and also boosting the sharing economy in a significant way: companies can possess their own fleets to rent out, providing mobility to non-drivers like never before.

Efficiency and the competitive edge become apparent as the involvement of a machine in the logistics business augments the entire process. There are lot more failsafe mechanisms in place, mitigating various errors that happen with a purely human system.

Another industry disruptor is Drone Technology, set to replace human couriers and in many cases, conventional modes of transport. Drones have been predicted to disturb the delivery, media industries like the photography services sector, the advertisement sector, humanitarian relief and many more with their inclusion.



CONCLUSION



Modern day businesses have several options to choose from, if they do choose to optimize their business with the help of technology. However, the entire process is moot even if people have the right knowledge – but cannot make the right decision.

This eBook serves the purpose of acquainting you with the benefits and relative perils of the on-demand economy, and comprehensive solutions of dealing with the same.

Insufficient information is the biggest problem with decision-making, and we are committed to offer a cognitive process that is aided by the latest, cutting edge technology so that no variable is ignored. This book also highlights many of the services and solutions that can be provided by us on a whole.

If you enjoyed reading this eBook, found it remotely helpful or simply an interesting launchpad for a tentative future in the on-demand scenario, we consider it to be a small victory. We would be even delighted to have further discussions with you regarding the same, should you decide to seek our help.

So do not hesitate to give us a call – there's a whole world at your fingertips, awaiting one simple click.



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