

ChromeInfo Technologies

Mobile Apps in On-demand Economy













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Introduction



"I see sharing economy eating up everything. I think that human inefficiency is the most interesting, biggest upside market."

- Gary Vaynerchuk

On - Demand Economy

If a 2016 marketer, like Gary, is saying that, you can be assured of the space's potential. You already believe in the on-demand economy, but still face some sort of skepticism, from people in your community, including friends, family, business partners, employees and investors. They read a gloomy news of an Uber for X startup, shutting shop somewhere, or laying a few people off and magically come to believe that on-demand economy is just another fad.

We'll address the skepticism later in this chapter. But before we do that, let's agree on what exactly makes up the on-demand space. On-demand economy represents all digital marketplaces that provide goods and services in a short amount of time, often immediately. It is Etsy, Airbnb, Uber, Grubhub, Postmates and everything in between. All of these services sell you on the time they save, if not actually free up your schedule to do things that matter.

About 800 such models exist across 16 different "traditional" industries, attracting 22.4 million consumers, spending approximately \$5 billion every month. And that's just the US. On-demand economy has a footprint in India, Middle East, Europe and Australia.

Figure 1: Shows category-wise mind-share and market-share of on-demand economy in the US

- Online Marketplaces (Ebay, Etsy) 16.3 million consumers per month, spending \$3 billion
- Transportation (Uber, Lyft) 7.3 million consumers per month, spending \$500 million
- Food / Grocery Delivery 5.5 million consumers per month, spending \$400 million.

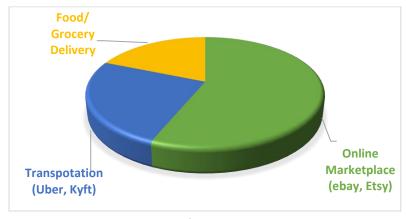


Figure 1

Some more statistics to break a few stereotypes people love talking about:

 Figure 2 shows, It's not only for the young. More than half of on-demand consumers are from the Gen X (age 35-54) and Baby Boomers (age 55 or older) generation. Who doesn't value convenience, really? • It's not just for the wealthy. About half the on-demand consumers have an annual income of less than \$50,000, or Rs. 10,00,000 (India) or 220,000 AED (Dubai). 70% of the consumers live in rural areas, small towns and outer suburbs.

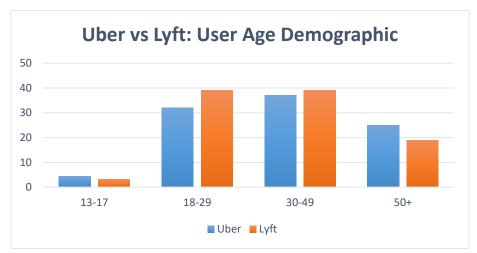


Figure 2

Moving forward, you will see a lot more on-demand startups collaborating to spread the word. A partnership between Instacart and Washio, or WunWun and Gett is evidence for that. Large businesses, mostly legacy organizations like General Motors, will enter into more partnerships with on-demand businesses like Lyft, to stay current with the changing technology and consumer behavior. Government will work with leading businesses to create long-term partnerships. This is yet to happen in the on-demand economy yet, but you can seek a positive example in the kind of partnerships that Facebook, LinkedIn and Google have materialized with various national governments.

Sure, some businesses like Homejoy or Spoonrocket have shut shops. And Instacart has cut wages. And Uber, or AirBnB, is fighting regulatory battles. But all of them, are still startups - in search of repeatable and scalable business models. This doesn't signal the end of the on-demand industry. Arun Sundarajan, a professor at New York University's Stern School of Business, shares his opinion, "I haven't seen the failure of any particular company, point to the lack of viability of space in general." The fact that there was a Pets.com in the dotcom industry that failed, didn't stop Amazon and Google from becoming the most valued businesses in the world.

As per the technology adoption life cycle, on-demand economy has already started to woo people from the early adopters and the early majority community. More than half of the on-demand consumers are

- pioneers, who require a degree of assurance and ease of use before they embrace an innovation
- hesitators, who require the innovation to be easily accessible
- and skeptics, who are waiting for more evidence to come through, before they jump on the bandwagon

Consumer behavior is changing fast. The internet has inundated people with information, so it's hard for them to separate the good from the bad. A mobile-first world demands that business is fast, smooth and easy and rightfully deserves the on-demand business model.

Mobile First World

Consumers today have savvy smartphones to help them make through their day. They have an immediate access to messaging, e-mail, and media through a plethora of mobile apps that get them latest information from the web, around the clock. When they are consuming new information 24/7, people are making new decisions anytime, anywhere. It's only natural for them to expect to buy anything, at a time and place of their choice.

Your consumers know that today's technology allows you to offer them products and services at their convenience. And they're not wrong to expect them in their next interaction. They value themselves as customers, and they value their time. Naturally, they want to receive your best service in hours, if not minutes. They find the mobile experience easy and comfortable, and logically demand your business processes too, to be fast, simple, intuitive and efficient.

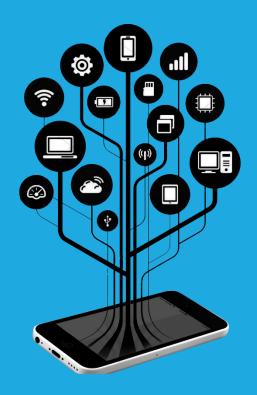
It might seem a heresy, and a very optimist, almost utopian, picture of the world. But, here are the facts:

- There are 3.7 billion people, as of June, 2016, who have an access to internet, 55% of them in India and the Middle East. Five times as many as the internet users in 2000
- The average internet speed is 5.6 MBPS, worldwide. You still have some time to speed up, if you've consumers in India and Middle East, since the internet speeds are low. But if you're building an app for European or American markets, you better be aware that the consumers fret on "SLOW INTERNET" at 12 MBPS.
- There are 2.6 billion smartphones, growing fastest in emerging markets like Middle East and Asia-Pacific
- Of the 5.6 hours spent online in the US, 51% is on mobile devices
- 74% of adult smartphone internet users, use location services like map directions and social check-ins, and 20% of internet users use mobile wallet provider

"A dramatic increase in the number of smartphone connected consumers, simple and secure purchase flows, and location-based services are a few of the market conditions and technological innovations propelling the explosion in on-demand services"

- Steve Schlafman, RRE Ventures

Together, the internet, smartphones and internet services including location-based services and payments, make up the necessary infrastructure needed to make digital marketplaces a success. There hasn't been a better time to start an on-demand business.



Mobile App Model for On Demand Economy

Mobile App Model for On Demand Economy

When you decide to start an on-demand business, you need technology to offer services at scale, and ensure that the user experience outshines the offline counterparts. To think of it, consumers will not purchase just for the sake of purchasing from an app until they are promised a fast, smooth and efficient user experience.

Apps, in a mobile first world, are not just a distribution platform. Businesses need to see this as an opportunity to build relationships with consumers at scale. Uber has been successful in doing exactly that, with its promise of "Everyone's Personal Driver". Time is the most valuable commodity today and Uber sells this notion of saving time, versus hailing a cab in an offline world.

Like Uber, you are probably trying to solve a business problem by creating an online-offline integration of demand and supply. You want to aggregate demand over smart phones and supply more efficiently. Key to success in the business depends on aggregating demand fast and delivering services with a large spread of suppliers. On Demand economy also warrants on demand customer service. Spoon Rocket's shutdown, a YC backed On Demand food startup, further highlights the need to keep quality and user experience at the center of things.

On Demand Startups, have targeted similar user segments in various industries, trying to find the right balance of service quality and speed. Consider two examples,

On Demand Beauty Market in the US

- GlamSquad vets and hires beauty freelancers, who are available to its users any time anywhere under its own brand name
- Stylisted helps users hire vetted hair & makeup professionals, operates like a market place where users can rate their experience
- Styleseat helps users discover & book beauty appointments at salons in their area

On Demand Meals in India

- Yumist maintains a backend kitchen that cooks meals every day and a logistics team that delivers
- Swiggy is a demand aggregation platform and a delivery team, sources meal from local restaurants
- Zomato provides users with restaurant recommendations and an online ordering platform

These differences in how startups capture demand, get the services delivered and ensure exceptional customer service can very well become the reason they succeed. No single execution strategy is true in every case.

To figure out the right strategy for your business, answer these 5 Key questions around the business model. It'll help you identify the key features that you need in your app to deliver a noteworthy experience.

How soon do you deliver the product or service?

Often startups struggle to find a good answer to this question. Should the services get delivered within a few instants of ordering or should they be scheduled for a time that makes more sense economically?

One misconception would be to think of On-Demand as Instant. While Uber delivers the promise of a driven within 5 mins, an Airbnb might deliver its actual service, a rental home, in a few days or weeks. On Demand, doesn't necessarily mean 15-45 mins delivery, it can very well extend to the next day or week.

Scheduling of the delivery depends not only on the type of demand you're aggregating, but must also take in to account the supply-end logistics. It will be difficult to deliver a service like pest control within 15 mins of ordering. Unless you're already in the space, in which case you want technology to aggregate demand faster, the economics of instant delivery can be very difficult to plan and manage. An instant delivery can easily put an unwarranted pressure on your supplier side due to an unpredictable demand. Compared to the scenario where you schedule delivery of services a couple of days later, instant delivery models are more challenging to execute. Often the costs of instant delivery can hamper your business, burning endless cash.

In nutshell, you need to ask two questions

- 1. How soon do the consumers seek the product or service?
- 2. If you are offering instant or same-day delivery, does business economics still make sense?

Who delivers the product or service?

Your answer to this question will determine the quality and reliability that users can associate with your brand.

You can choose to be a marketplace by aggregating suppliers and rating their services. As your suppliers fulfill orders, customers will rate their performance and help you remove the non-performers from the system. Since you have little to no direct control over the quality you absolutely need this marketplace mechanism. For a marketplace to be successful, the buyer and supplier side must find it easy to interact, verify and transact with each other.

An alternate way of ensuring quality delivery of services or goods is to list only verified and contracted individuals as suppliers. In this case, the quality of services is your direct responsibility. Users will rate you, both for the timely fulfillment and quality. You're attaching your brand to every small interaction that the delivery team does. This may seem overbearing, but the model allows you greater control over the user experience.

Irrespective of the business model, we advise you treat the marketplace as a one-sided platform at the beginning. Focus on aggregating demand with a handful of carefully vetted suppliers. Don't get caught in the chicken or egg problem of building demand or supply first. You can easily fall in the rut of getting suppliers, customers and helping them cultivate a relationship at the very start. Once you've demand on your platform with a few suppliers providing satisfactory services, it's much easier to attract

more suppliers. Keeping a small group of suppliers will also help you closely monitor the quality of services in the initial days. Never underestimate the power of a happy customer, they can bring in many more. Start by focusing on winning loyalty of an initial group of customers first.

How are customers matched with the suppliers?

Whether you choose a contracted supplier model, or an open marketplace one, you'll need to decide if the customers select suppliers themselves or an algorithm makes the matches.

Consider a case like Uber, every driver has to perform the same task in a safe and reliable manner. The promise is very singular. The users don't expect one driver to be far superior than the other. Once this is decided, Uber built algorithms to match drivers to users looking for them.

At Zomato, however, which is a restaurant listing platform, there are many restaurants, each with a different choice of dishes. Users expect one restaurant to be very different from other. Zomato provides restaurant ratings, but leaves it to the users to choose the restaurant.

If the quality of product or service, varies considerably among suppliers, users will make better choices than an algorithm like Uber"s.

Do you offer the same product to every customer?

Uber nailed the standardization of taxi services, primarily because of the singular nature of demand. Standardization of services can allow you to build streamlined user experiences, including quick matching and easy transactions. This streamlined user experience helped Uber grow aggressively.

However, it doesn't mean all services can be standardized. Consider Airbnb, which focused on effective search and discovery. Renting a house can't be an immediate decision and involves various parameters. It's difficult to build an algorithm that matches a user to a perfect rental accommodation.

To answer this question, consider whether your business offers a commodity or a customized product or service. If you have to customize the value proposition for each user, you'll achieve far more success by allowing the users to make their decisions. Quick and streamlined implementation works if you can think of ways to commoditize your offering.

How do you make money?

Last year more than \$17 B was invested in on demand startups globally, which is 10 times the amount in 2013. Everyone is excited by the scale and monetization potential of an on-demand business model.

Many a times, on demand startups rid the ecosystem of middlemen and making the system more efficient. It positions them well enough to charge for this vast improvement in service quality at a very minimal increment to the end user or take up the share that earlier went to middlemen.

You could either add a markup to the cost of services/products or charge the supplier a fee for providing the business. What works in a particular industry depends on its price sensitivity, user behavior and supplier's intent on sharing revenues.

Grocery startup Instacart adds to the cost of goods, like a delivery fees. While on demand food startup Swiggy, asks for a fee from restaurants, often a fixed percentage of revenues.

Conclusion

Once you figure out a business model hypothesis for your On-Demand idea, you can start building your Minimal Viable Product. This miniature version of your product will have basic features to fulfill your marketing promise for the early users. You can then use their feedback to make necessary changes and deliver better customer experiences. Remember, your answers to all the questions need to be validated by your users. It's perfectly normal to discover that one of your hypothesis is not working out. You need to change it right away. Building & iterating fast is the only right thing to do.

In the next section, let's dive deeper into successful on demand businesses and specific app features in our Industry Spotlight.



Industry Spotlight

Ground Transportation

The On - Demand Ground Transportation economy was pioneered by Uber in the US. In 2014-15, Uber's revenue in SF was greater than the entire San Francisco Taxi and Limo industry. Soon a variety of startups looking to solve problems of intra-city human and goods transportation flourished across the globe.

Uber offered clean rides, an exceptional customer service and flexibility to accept different forms of a payment. Uber helped its drivers generate more revenue from their vehicles by creating demand consistently through its app. Surge pricing played an important role in balancing this demand and supply, by attracting drivers in areas where the supply is low.

In SEA, startups like GoGoVan, EasyVan use combinations of trucks, motorbikes and vans to move goods from place A to B. Jugnoo in India, is an auto rikshaw aggregator, for people transportation and on demand meal delivery. Shuttle allows users in India to book a seat in shuttle buses, that are designed to simplify commuting and intra city travel. BlaBlaCar helps simplify intercity travel through its carpooling app.

Let's look at a few app features that runs common across these apps and make the on-demand experience successful.

Geolocation & Push Notifications

On demand ride hailing companies build features to help users instantly find and book a taxi. Users receive notifications on how soon they can hail the cab, and the expected time of arrival at the destination. Matchmaking happens via an algorithm.

Dynamic Pricing

This feature helps maintain the demand and supply balance on the platform. The increased fare acts as an incentive for taxi drivers to stay on the roads. The price surge is driven by algorithms and lasts only for few minutes, and the rates get revised depending on the demand-supply gap.

Automated Payments

Simplified payments, including integrations with local mobile wallets and Cash on Delivery, along with an easy rating system at the end of ride completes the on-demand transportation experience. Users loved the idea of cashless payments with Uber and it helped Uber cement its position as an "Industry Disruptor".

The on-demand transportation phenomenon has just started. Go Jek in Indonesia, world's 6th most populous country, is slated to become the next big thing. Uber & Didi Kuaidi joining hands in China, only augurs well for startups in emerging markets.

On Demand food startups also sell time. They save your time and effort to pick a place to eat outside, or ordering food at home and paying for it. The millennial psychology that considers convenience important makes on demand food startups attractive.

Zomato and Foodpanda help users decide where to order from. Swiggy brings items from different restaurants in the same order. Just Eat partners carefully selects restaurants it displays on its platform. On Demand Food startups deliver the "Meal Experience" in one of these 3 ways:

- 1. Order Only: Like Zomato which managed only the orders and passed them to restaurants, which use services like Shadowfax or Jugnoo to deliver the food
- 2. Order and Delivery: Like Swiggy, which aggregates orders and manages a fleet to deliver the orders
- 3. End to End Integration: Like Yumist, which takes orders food, cooks at a local hub and delivers

For each of the business models, a different set of features is implemented in the app to deliver the promised experience.

Content Management System with Multi-lingual support

Reviews and ratings help a user in selecting the right place to eat, or order their food from. If you're looking at a global audience, the website needs to be built for multiple languages like Hindi, Arabic, Spanish and French in addition to English.

Seamless UI/UX & Automated Payments

On demand Meal is about convenience and startups pay special attention in making the order easy and in fewest touches. Integrations with local mobile wallets is essential to complete this experience.

Fleet Management & Order Allocation

Mostly for businesses that manage their own fleet for delivery and operate local kitchen hubs, apps need features to allocate the orders to right hub and fleet member for delivery. Preferences for delivery, such as delivering orders based on first come first serve or delivering order based on proximity to riders, can be built in the app to automatically make decisions real time.

Questions were raised in 2016 around food tech startups, after a record funding spree of \$ 5.7 Billion in '15. However, the eventual winners are busy in executing against all challenges. Everyday, innovative companies like Sprig, Munchery, Push for Pizza are joining the race.

Home Services

With consumers becoming increasingly comfortable with the idea of booking services through the Web, home services appear to be the next big market. By going beyond simple business listings and reviews, startups are helping consumers schedule and pay for services online. Hyperlocal vendors, by streamlining the overall experience, hope to provide an end-to-end service and convert more online prospects into paying customers.

The diversity in the range of home services, startups target a specific set of services. Consequently, the mobile app needs a different execution to make it suitable for a particular type.

HandyBook helps consumers search, book and pay for pre-screened plumbers, handymen and house cleaners. HandyBook earns via commissions. **MyTime** nails the problem of erratic scheduling of professional home services by giving users exact time slots to book. **ClubLocal** contracts local home service professionals after verifying their licenses and background checks. **UrbanClap** engages users with a set of questions to look for best professionals, who provide quotes based on inputs.

Let's look at the app features that help:

Content Management System with Multilingual support

Content Management System also helps manage quotations and complaints. For a global audience, the CMS can be supported for multiple languages like Arabic and Spanish

Dynamic Pricing & Automated Payments

Dynamic pricing helps contractors make more during rush hours. Automated payments, facilitated through an online service like Braintree or Stripe can ensure a smooth user experience.

Geo Location based Job Listing and Match Making

This helps make matches quickly, and deliver a great user experience to your customers.

Chat Client

Helps in manage bookings, change in schedule and file complaints directly with the service provider.

Many on demand home services startup are growing in the South East Asian Market. Housejoy, Easyfix, Nestia, Zimmber are all looking to carve out a space. Every startup plus Amazon, wants to make it a winner take it all market.

Business Services

Freelance economy is taking the world by storm. In the United States, nearly 53 million Americans today work as freelancers. Technology platforms that pair talent with businesses have fueled the trend.

Kaggle helps companies run programming contests to crowd source machine learning solutions. MBA & co is a marketplace to find management consultants at fraction of a price of consulting firms. Experfy is a platform to find data experts for small businesses who don't possess in house talent. With the Lawfone app, businesses can video-consult with attorneys in their area, at a fixed price without the effort of fixing appointments.

Consumerization of business services is a trend to stay. Apps that simplify the process of selecting and hiring business services will win. Let's look at a few features that help:

Content Management System

Detailed profile and reviews for each contractor help users to select the right contractor for them.

Automated Payment

Platforms facilitate signing of contracts and easy payments. An integration with PayPal or Stripe can help them setup escrow accounts to deposit the project fees in advance.

Chat Client with Video Call Integration

Chat interfaces allow parties to interact, build confidence as they discuss the project. Certain services like expert consulting, are being delivered via video sessions. These features help build trust, often helping contractors get repeat business.

In App Project Management

A project management platform is often made available on the apps, which helps in monitoring progress. This makes it easier to release payments on time and protects the interests of the buyer of services.

Over the next few years, demand for freelance workforce is going to peak. Mostly driven by upcoming business hubs and small businesses, who want to hire as per need, on demand business services is a lucrative market to invest and build a business in. Traditional firms with huge overheads, face a tough task of justifying their costs.

Accommodation

Airbnb is a peer-to-peer online marketplace and homestay network enables people to list or rent short-term lodging in residential properties. It pioneered the on demand accommodation market which now is growing really fast, fueled by corporate stays, short term travels and student lodgings.

Couchsurfing helps travelers find locals willing to share a couch for a short stay. Oyo rooms in lists unused rooms of hotels and sells them through a website and mobile application. It also diversified into Corporate stays for businesses to manage employee travel. NestApart is also the destination for corporate, executive, and startup accommodation. Zostel & Study Abroad Apartments focus on the student crowd providing them economical and instant place to stay.

The appeal of on demand accommodation is the ease of use and reliability of services. An integrating with social networks can work to your advantage, like Airbnb and Couchsurfing. An elaborate search and discovery part, assisting users to make the right choice, has been a hallmark feature of such startups. Consumers also seek photographs, and videos for the accommodation, before they select one.

Let's look at a few features that we often see in on demand accommodation apps:

Content Management System

Helps create detailed profile pages with review system to list rental properties and make it easy for the user to make a good selection

Search and Discovery System

Features to ensure smooth discovery of places, filters to sort options based on cost, location, guest policies etc.

Social Integration

Including a social angle, like sharing of travel stories, host ratings as seen in apps like Airbnb and couchsurfing

Automated Payments

Building features to complete booking and payment post selection of a place, in least number of touches. Integrations with local payment wallets to ensure hasslefree payments

Affordable and reliable short term housing is a problem that on demand businesses are well positioned to solve across emerging economies. Recipe for success is creating a mobile experience to reduce booking hassle and delivering a comfortable stay.

Healthcare

The multi-trillion-dollar healthcare industry needed a makeover and mobile apps are doing exactly that. On-demand healthcare is fundamentally changing and enriching the doctor-patient relationship. These businesses help make physicians more accessible to patients, and simultaneously reduce costs at both the ends.

Accenture reported that on-demand healthcare investment will grow from \$250 million today to more than \$1 billion by 2017. Teladoc, a telemedicine provider that recently filed for an IPO, handled nearly 299,000 patient consultations in 2014. First Opinion allow consumers to text questions to doctors 24/7. Pager and Medicast facilitate on-demand house visits by doctors. Pill Pack delivers medicines to consumers, Heal provides on-demand visits, Patient Fusion and One Medical helps patient book appointments with verified doctors.

Let's look at a few features that we often see in on demand health apps:

Chat Client with Video Call Integration

This cuts down the huge cost of actually seeing a doctor, and makes it easier for users to consult a doctor around the clock. It also allows doctors to collaborate and share records with colleagues.

Geo Location based Job Listing and Match Making

By signing up verified and licensed doctors and ensuring their availability around the clock, apps like Heal are bringing the Uber concept to healthcare.

Automated Payments

Most platforms also facilitate payments, via an integration with Stripe, or Braintree to provide a seamless user experience.

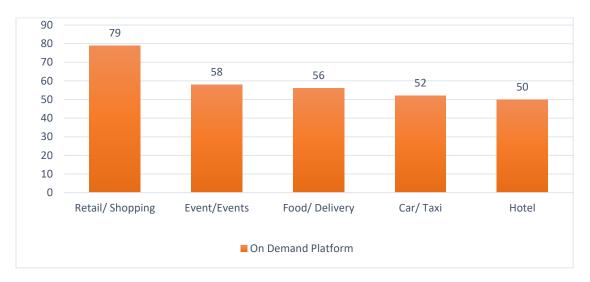
Integration with Legacy Software

Many apps are developed to allow easy integrations with existing patient record management software.

Many economies of the world suffer under massive doctor shortages. Apps that bring healthcare to a larger audience and make it affordable, are likely to scale and be successful.

Conclusion

Figure 3, shows mobile consumers use on demand apps to make purchase across a variety of different verticals.



Most the users who have purchased through an app have used them for retail and shopping, ticketing, food delivery, and transportation.



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We excel in assisting startups with disruptive ideas and enterprises looking to innovate their businesses with mobile-first technology. We are practitioners of AGILE development and can help you build your Uber for X business, in as early as 90 days.



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