thrv

HOW TO USE JOBS-TO-BE-DONE

"This is what we found really powerful about working with **thrv**: we can identify needs as metrics which we can measure and act on to help our customers/students."

Elmer Almachar
Senior Director, Strategy & Innovation
Kelllogg School of Management

thrv's customers are the world's leading companies including:

What You Will Learn

In this Document, we will show you (i) **what** the JTBD method is, (i) **how** to use JTBD to align your teams with your customers, (iii) **why** JTBD is the best way to coordinate product, design, development, marketing, and sales teams, and (iv) how to calculate the **revenue growth** and **equity value** your team can generate using the thrv JTBD method. The goal of JTBD is to help you and your company accelerate revenue growth and create equity value **faster with less risk**.

Successfully creating and launching high-growth products is extremely hard. You know quickly when a product fails to generate your projected revenue growth. But do you know why it failed? Too often investigating failure involves internal finger-pointing and blaming rather than an insightful examination of unmet customer needs. Jobs-to-be-Done (JTBD) helps you and your team avoid the blame game and gain agreement on how to satisfy your customers unmet needs.

A Brief History of Jobs-to-be-Done

JTBD has a long history based on a simple premise. Clay Christensen of Harvard Business School has stated the key JTBD concept simply: your customers are not *buying* your products, they are *hiring* your products to get a job done.

This idea dates back to Theodore Levitt (also of Harvard) who famously said in the 1960s, "customers don't want a quarter-inch **drill**, they want a quarter-inch **hole**."

Over the past decade, the techniques in JTBD (aka Jobs Theory) have been advanced and improved significantly. We will explain and demonstrate how your team can use these advanced JTBD techniques in detail.

Examples

In the example sections below, we will demonstrate how a product team could use JTBD to beat Apple Maps and Google Maps. In the process, you'll see why JTBD helps you beat your competition more effectively and reliably than other product development methods.

We chose **Apple** and **Google** as our example competitors because they are the two of the most successful competitors the world has ever seen. Apple Maps and Google Maps both have almost total market share dominance.

Yet with JTBD you can find and exploit weaknesses in even the largest, most successful companies in a market. Using the techniques described in this Document, you too can beat your competition and win in your market.

thrv JTBD Certification Course

This Document explains why and how to use the JTBD method using detailed examples. The thrv JTBD Certification Course enables you to quickly acquire the skills to become a JTBD expert to build better products for **your customers**. The Course includes, videos, examples, review questions, and exercises that ensure your career success using JTBD in **any market**.

The Product Problem

Most product management processes and software are based on an ideas-first approach that follows a pattern similar to this one:

1. Product teams generate feature ideas to improve the product.
2. The development team builds the features into the product.
3. When the features are complete, the product is launched and iterated until product-market fit is found.

The whole process is focused on the product. The vast majority of the time this doesn't work. Customers don't buy or use the new product or features. Your company invests in product development, marketing, and sales for the new ideas, but the projected revenue and profits never materialize.

As a result of product failures, 40% of the Fortune 500 will no longer exist in 10 years and 63% of startups fail to return the capital invested. Failure is all too common.

We call this the **Product Catch-22**. Your product team is doing what they are supposed to do: improve your products. But, while incrementally adding features to the product, teams lose sight of the customer's unmet needs. In other words, teams lose focus on the **customer's struggle** to get the job done.

Meanwhile, your competitor creates an entirely different product or service that satisfies customer needs in a different way. They take market share and stall your growth.

A team's focus on product ideas instead of the customer's JTBD is the most common cause of product, company, and often career failure. For example, product teams at Blackberry, Encyclopedia Britannica, and Kodak were all working to improve highly successful and profitable products. And they all failed despite serving incredibly large and underserved markets, as we will demonstrate.

The JTBD Solution

The solution to the Product Catch-22 problem is a **needs-first** approach to product management that focuses your team on your customer's job-to-be-done rather than your product.

Instead of starting with product ideas, your product team should start with customer needs. The reason why is simple: the goal of innovation is not to generate more ideas; it is to **satisfy unmet customer needs** better than your competitors in your market.

However, the traditional definitions of a customer need are problematic. What is a customer need? What are your customers' needs? How should you and your team prioritize them? Which needs are unmet? How do you know if you will satisfy the needs better than your competitors? How do you know if satisfying the needs will generate enough revenue to meet your company's growth goals?

JTBD helps your team answer all of these questions in order to **accelerate** your revenue and equity growth **with less risk**.

1. Revenue & Equity Growth

Satisfying customer needs better than competitors in your market is what causes revenue growth and equity value creation. Your team can use JTBD methods to calculate the customer value your product roadmap will deliver and the market share (and resulting revenue growth and equity value) you can generate in your markets.

At the end of this Document, we will show you how your team can more accurately project revenue growth and equity value using JTBD, but the first step is to **define your market** from your customer's point of view.

All of the traditional market definitions in **Table 1** are based on products. But products are merely point-in-time solutions that help customers achieve a goal in their personal or professional lives, i.e. products help customers get a job done.

For example, in order to execute the job of *creating a mood with music*, customers have "hired" a wide range of products: piano rolls, Victrolas, LPs, eight-track tapes, reel-to-reel tapes, cassettes, CDs, MP3 players, and streaming apps. While the products have changed dramatically over time, the job of *creating a mood with music* has never changed, and it will never change.

A job-to-be-done is a constant that is independent of products. This is true for business-to-consumer (B2C), business-to-business (B2B), and medical markets.

Table 2 on the following page demonstrates how any product-based market can be re-defined from the customer's point of view based on the customer's job.

For example, in a B2C market, navigation apps are hired by consumers to *get to a destination on time*. In a B2B market, networking devices are hired by CIOs to *enable secure data use*, and in a medical market a phlebotomy tube is hired by nurses to *obtain a blood sample*.

In any market, you need to **identify your customer**. In traditional methods, teams often use personas to identify their customers. For example, one person, "Paul" might be defined as young, urban, and college educated. Another, "Kate" might be defined as older, rural, and high school educated. In B2B markets, companies often define their customers using verticals, e.g. "consumer packaged goods." "financial services," or "healthcare".

But personas and verticals are characteristics, and characteristics do not cause people or companies to buy products. For example, "Paul" and "Kate" could both struggle in the same way to *get to a destination on time*, yet it would be unlikely that traditional persona-based customer segmentation would group them together.

Similarly, CIOs at consumer packed goods and financial services companies could both struggle to *enable secure data use*, yet these two customer verticals are often not segmented together.

Table 1. Traditional Flawed Product-Based Market Definitions

Total addressable market	All units sold in a **product** category * price per unit
Serviceable addressable market	Units sold of a specific **product** type * price per unit
Potential market	All customers with interest in a **product** offer
Qualified available market	All qualifying customers with interest in a **product** offer
Target market	The segment of the market a company pursues with its **products**
Penetrated market	The percentage of customers buying a company's **products**

In our JTBD method, we define your customer using a **job beneficiary** and a **job executor**. A job beneficiary is the reason a market exists: because someone benefits from getting the job done. A job executor helps in job beneficiary get the job done.

In consumer markets, the job beneficiary and the job executor are frequently the same. For example, a consumer (the beneficiary) who is using a navigation app is also the executor (when driving) who is hiring a solution to *get to a destination on time*.

In B2B and medical markets, the job beneficiary and the job executor are often different. For example, a surgeon executes the JTBD of *restoring artery blood flow*, but the patient is the beneficiary. Similarly, an IT manager may execute the job of *enabling secure data use*, but the beneficiaries are company employees.

In many markets, this beneficiary/executor distinction is important because the job executor is currently part of the solution to getting the job done and new solutions will be developed over time to help the beneficiary get the job done on their own **without the job executor**.

For example, cloud-based (SaaS) applications have enabled companies to reduce or eliminate specialized IT managers (job executors) so that non-technical employees (job beneficiaries) can *enable secure data use* on their own.

In a medical market, new medical devices have been developed to allow a patient (the beneficiary) to *obtain a blood sample* on their own without a specialized phlebotomist (the executor).

Table 2. Job-To-Be-Done Based Market Definitions

Product	Job-To-Be-Done
Navigation App	Get to a destination on time
CRM Software	Acquire new customers
Phlebotomy Tube	Obtain a blood sample
Car Marketplace	Buy/sell a used car
Maintenance Software	Ensure aircraft airworthiness
Networking Device	Enable secure data use

Table 3 illustrates customer examples of job beneficiaries and job executors.

Table 3. Customer Examples

Beneficiaries	Executors	JTBD
Patients	Surgeons	Restore blood flow
Children	Parents	Overcome anger
CIOs	IT managers	Enable data use
CFOs	Accountants	Optimize cash flow
Patients	Phlebotomists	Obtain blood sample

Defining your market using a job beneficiary, a job executor, and a job-to-be-done is a critical first step because flawed market definitions can be lethal. And they can lead teams to incorrectly size market opportunities and inaccurately project revenue growth.

For example, a team at Microsoft used traditional methods to calculate the size of the iPod "market" in 2007. Apple had sold 200 million iPods at $150. Using traditional methods, this logically appears to be a $30 billion market (market size equals the price of the product times the number of buyers). Microsoft launched the Zune into the iPod "market", and it failed dramatically.

Jobs Theory reveals the lethal flaw in this traditional market sizing method: consumers don't want iPods any more than they want

records, cassettes, or CDs. They are not buying these products, they are hiring the products to get a job done. This is why the supposed iPod "market" (like the cassette "market" and the CD "market") is now rapidly approaching $0. New products have emerged (smart phones, streaming apps) that get the job done better for the customer. The Zune was doomed from the start because Microsoft defined the market incorrectly using a product.

Traditional market definitions have led to large company failures throughout business history, including the failures of Blackberry, Britannica and Kodak. These companies failed because there are no keyboard device, encyclopedia, or film "markets." These are all products that declined rapidly over time. But there are (and always will be) markets to *execute jobs while mobile*, to *find information*, and to *share memories*. These are all stable JTBDs.

Apple, Google, and Facebook created three of the most valuable companies in history by helping customers get these jobs done better.

Example: Revenue & Equity Growth

In our example of how to beat Apple and Google, it should be clear now that to more accurately project revenue and equity growth, we start by defining the market not with a product (e.g. maps or navigation apps), but with the job the customer is hiring the product do to. In our example, navigation apps are being hired to *get to a destination on time*.

Magellan lost its leadership in the maps "market" to Apple and Google and almost went bankrupt because there is no maps (or GPS devices) "market" (maps and GPS devices are products). There is a market for *getting to a destination on time* (the job-to-be-done). Because a JTBD remains stable over time, you can use the job to size the market, identify unmet customer needs, and project the revenue and equity growth you can generate by getting your customer's job done better. These calculations will be shown at the end of this Document.

2. Market Opportunity

Market opportunities exist not because products are being sold to customers. They exist because customers are struggling to get a job done at a price they are willing to pay.

This is a key insight from Jobs Theory: the **struggle to get a job done** is what **causes** a customer to look for and purchase a new solution. As a result, helping customers overcome this struggle (as we will demonstrate) is what causes a purchase and results in revenue and equity growth.

To size a market opportunity, we don't analyze the products currently in the market. Instead, we ask customers what they are willing to pay to get the job done. We plot the customer's willingness to pay to get the job done on a curve from high to low. We call this curve the **need curve**. The area under the need curve is the size of the market. We call the resulting number the *securable market*.

A **securable market** is the revenue a company can generate by helping customers get a job done better. It helps your team avoid targeting the wrong market or targeting a market that is too small to meet your revenue growth goals. And it can be used to size new markets where there are currently no products or services.

As shown in **Figure 1** on the following page, the securable market is the area under the need

curve. This is a more accurate representation of the total revenue that you can generate by helping customers get the job done at their willingness to pay, regardless of the products they are using today. The slope of the need curve also tells you if there is a bigger opportunity for you to serve premium or low cost customers in your market.

Example: Market Opportunity

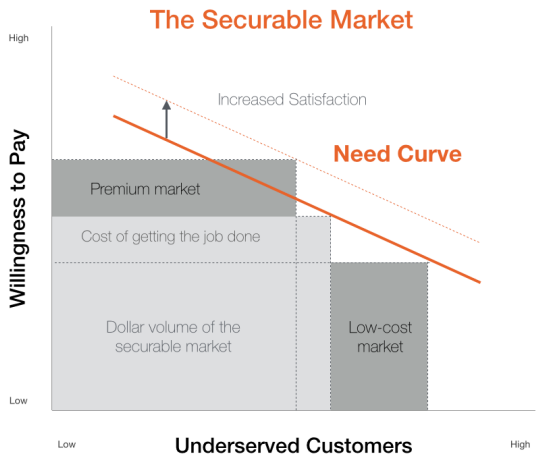
In our example of how to beat Apple and Google Maps, we can size the market opportunity using consumer's willingness to pay to *get to a destination on time.*

If we used traditional market sizing equations (e.g. product price times number of buyers), this market would be unattractive because both Apple Maps and Google Maps are free. One billion users times $0 product price is a $0 market opportunity.

JTBD helps us avoid this mistake and find **hidden opportunities** to generate revenue growth. When we ask consumers what they are willing to pay to get to a destination on time, there is a large, underserved premium segment of customers who are willing to pay for a solution that gets the job done better. **Figure 2** illustrates the need curve and the securable market for the JTBD of *getting to a destination on time*.

There is a $2 billion opportunity to accelerate revenue growth in this market because there are approximately 30 million premium customers who are willing to pay at least $5.99 per month to get to a destination on time faster and more accurately. This market opportunity exists because these customers struggle to get the job done. In other words, there are unmet customer

Figure 1:



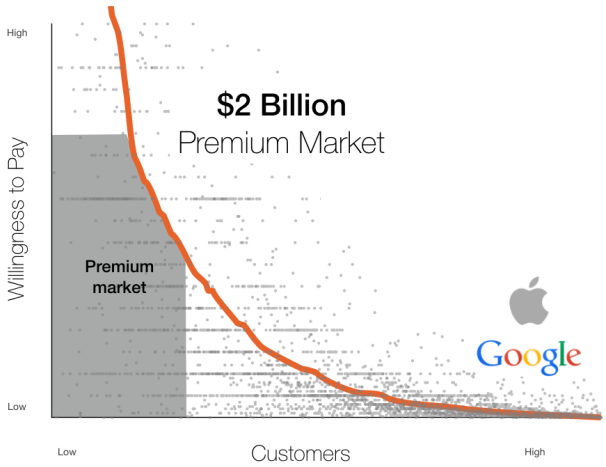
needs in the job. In the following sections, we will show you how to identify unmet needs in a JTBD and how to use them to create new ideas your product team can build, market, and sell to take market share in your market.

3. Customer Needs

Satisfying customer needs better than competitors is the key to your revenue and equity growth. As a result, getting cross-functional teams to agree on **how to define** a customer need is critically important.

Figure 2

JTBD: Get to a destination on time



In a study published in the MIT Sloan Management Review,[1] **95% of all companies** do not have an agreed-upon definition of a customer need. This is a critical problem because research has shown that the number one reason for product failure is failure to satisfy customer needs.[2]

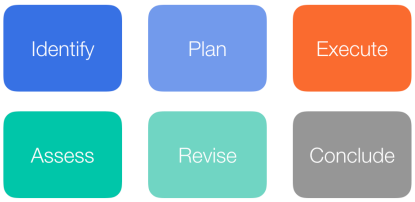
JTBD helps your team avoid the main cause of product failure. In Jobs Theory, a customer need is a metric your customers use to judge how quickly and accurately they can execute their job. Every need in a job is defined by an **action** a customer must take and a **variable** that must be known for a job to be executed successfully.

These actions and variables are the customer needs, and they are **independent of any solutions**. The customer actions in a need are defined by action verbs (e.g. determine, identify, gather, calculate, reduce, ensure, etc.). The **speed** with which your customer can take the action and the **accuracy** of the variable during execution of the job can both be measured. This is a critical insight in **thrv**'s JTBD method: your team can identify and measure the **cause of your customer's struggle** and thus the cause of customer dissatisfaction. If a customer (a job beneficiary and/or job executor) cannot get the job done quickly and accurately, this causes customer anxiety and low customer satisfaction. When **your product** helps your customer overcome their struggle by getting their job done faster and more accurately this reduces your customers' anxiety and significantly increases the likelihood of new and repeat customer purchases. This accelerates revenue and **creates equity value faster with less risk**.

With JTBD we have a stable, measurable, and actionable definition of a customer need. In order to identify your customer's needs, first deconstruct your customer's JTBD into different job steps. **Job steps** tell the story of what your customer needs to accomplish in order to get the job done.

Figure 3 illustrates the six types of job steps. Job steps can be categorized into: 1. Identification steps, 2. Planning steps, 3. Execution steps, 4. Assessing steps, 5. Revising steps and 6. Conclusion steps.

Figure 3:
Six Types of Job Steps



All JTBDs have 6-16 job steps, and every job step has 5-10 needs (actions + variables). As a result, every JTBD has 50 to 100 needs that measure the speed and accuracy of executing the job, i.e. the speed and accuracy of your customer achieving their goal.

Example: Customer Needs

In our example, to beat Apple Maps and Google Maps, we identified all the customer needs in the JTBD of getting to a destination on time.

The JTBD of *getting to a destination on time* has 16 different steps that each adhere to the different job step types. For example, there is an Identification step (Estimate the departure time),

[1] MIT Sloan Review, Spring 2008 Vol. 49, No. 3

[2] David Garvin HBS Case Study March 27, 2002, CB Insights, October 7, 2014

a Planning Step (Plan the stops), an Execution step (Travel to the destination), an Assessment step (Assess if the destination will be reached on time), a Revision step (Reset the route as needed), and a Conclusion step (Park the vehicle). **Figure 4** illustrates all 16 steps in getting to a destination on time.[3]

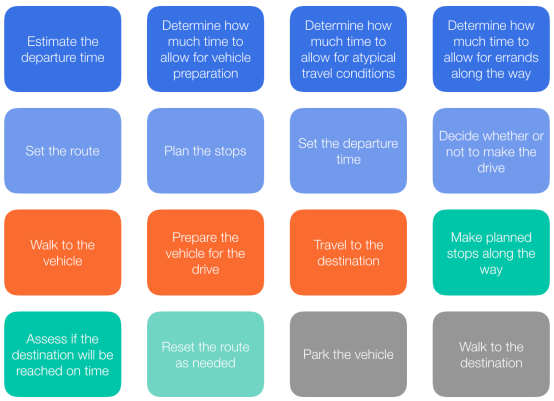
All job steps have 5 to 10 customer needs. **Table 4** illustrates five needs in the job step of *planning the stops* when getting to a destination on time. Each need has a customer *action* (e.g. determine) and a *variable* (e.g. optimal sequence, routes, amount of time). Each need, like the job itself, is free of any solution statement. In other words, each customer need makes no mention of any product, feature, service, or technology. **Customer needs are therefore stable over time** and will not change. This is extremely powerful because your product team will now have **a stable target** to hit: the customer needs in the JTBD.

Unmet Needs

Jobs Theory demonstrates that the struggle to get the job done causes a purchase. We know that the customer's struggle to get the job done will cause them to look for and purchase a better solution. In other words, customers who struggle to get the job done have unmet needs.

Because customers want to get jobs done fast and accurately, a need is unmet when the existing solutions satisfy the needs slowly or inaccurately—when the customer's action is not quick or variable is not accurate. If a customer cannot take the action described in the need quickly or if the variable in the need is inaccurate, this causes customer anxiety and low customer satisfaction.

Figure 4:
Job Steps: Getting to a destination on time



To assess speed and accuracy, we calculate the time it takes the customer to complete the action in the need with current solutions in the market. Current solutions include any manual execution activities to get the job done. To assess accuracy, we estimate what percentage of the time the variable is inaccurate when the customer executes the job.

Table 4. Customer Need Examples

JTBD: Get to a destination on time
Job Step: Plan the stops
Need: Determine the optimal sequence to make the stops.
Need: Determine the routes to make planned stops.
Need: Determine the amount of time added to make stops.
Need: Determine if parking is available at the stops.
Need: Determine if the location will be open when arriving.

Once you have calculated the current speed and accuracy of satisfying a customer need with competitive solutions, you can to determine if **customers' perceive** the current speed and accuracy to be a struggle. If they do, then they are likely looking for new solutions that are faster

[3] See US Patent US8521407 B2.

and more accurate. Solving a problem someone knows and perceives they have is much **lower risk** than trying to convince them that their current situation is a problem.

You can use a quantitative survey to measure and verify whether or not customers perceive the current speed and accuracy to be a struggle. There are different types of surveys, e.g. Net Promoter Scores (NPS) or customer satisfaction surveys. But Harvard Business School published research that showed that **measuring your customers' effort** to solve a problem is more predictive of customer spending and purchasing behavior than either NPS or customer satisfaction surveys.[4] In other words, it is more predictive to know your customer's perception of how much effort it takes them get their job done.

With Jobs Theory, it makes sense that customer effort is more predictive because customers need to take actions using variables to get the job done. In other words, it takes effort for a customer to get a job done. To measure customer effort, you ask customers how difficult it is to get the job done. You can measure the customer effort for each need in the job. The percentage of customers who say it is not easy to satisfy the need is the **Customer Effort Score** (from 0% to 100%).

Example: Unmet Customer Needs

In our example, to beat Apple Maps and Google Maps, we must identify needs that are not being satisfied by either Apple or Google Maps. For example, we can measure the speed and accuracy of *determining the optimal sequence of planned stops* with Apple Maps and Google Maps.

For a busy person with multiple meetings, appointments, and errands throughout a day, determining the optimal sequence of stops using Apple Maps or Google Maps would require entering destination A, calculating the time and the route to destination B. Then entering destination A, calculating the time and the route to destination C, comparing the two A to B and A to C routes, determining which was quicker and repeating the process for every possible combination of destinations.

With Apple Maps and Google Maps satisfying this need is a manual, time-consuming and inaccurate. It can take customer **5 minutes** or more and it is accurate less than **20%** of the time. In our customer survey, **86%** of consumers in the premium segment said that it was not easy to determine the optimal sequence of planned stops in their day.

As result, this is **an unmet need** in the market. Satisfying this need with Apple Maps or Google Maps takes too much customer effort because they are both slow and inaccurate.

Figure 5 illustrates that **unmet needs** can be measured using **three metrics**: a customer effort survey score, the speed of satisfying the need and the accuracy of satisfying the need.

Figure 5
Unmet Needs: Effort, Speed & Accuracy

Effort	Speed	Accuracy
86%	5 min	20%

[4] Harvard Business Review, July-August 2010, "Stop Trying to Delight Your Customers."

4. Competitive Analysis

In traditional competitive analysis, product teams often compare a product's features to a competitor's product features. But feature to feature comparisons are an ineffective way to identify competitive weaknesses and threats for two reasons.

First, feature to feature competitive analysis leaves out the most important metric: unmet customer needs. **Customers don't want features.** They want to get their job done.

As we illustrated above, JTBD competitive analysis quantifies how fast and accurately a competitor's product feature satisfies the customer needs in the job-to-be-done.

Second, feature to feature competitive analysis often doesn't identify **new competitive threats** that can emerge from a different category of products. Competitive threats often emerge from unmet needs in a job that can be satisfied with different technologies on a different product platform.

For example, Microsoft launched an MP3 Player (the Zune) to compete against Apple's iPod. The iPod and the Zune are similar product platforms: a device with storage and a connection to a PC.

Apple and Microsoft both failed to identify the emerging competitive threat from a new product platform (streaming services, e.g. Pandora and Spotify) because they failed to address unmet needs (e.g. *find a new song for the mood*) in the job-to-be-done (*create a mood with music*).

The iPod and the Zune had similar features to satisfy this need with the following steps:

1. Enter your song list.
2. Scroll through the song list.
3. Determine if the song is right for the mood.
4. Find/create the playlist for the mood.
5. Add the song to the playlist.
6. If no song is available, log in to store.
7. Search for a song that fits the mood.
8. Sample song.
9. Repeat until a song is found.
10. Purchase song.
11. Find/create the playlist for the mood.
12. Add the song to the playlist.

With the iPod and the Zune, executing these steps to satisfy the need to *find a new song for the mood* could take minutes, and in some cases a consumer might not be able to satisfy this need at all if he or she didn't have any new songs in the library that fit the mood or could not find a song in the store to fit the mood.

This is why streaming services emerged and took significant market share: because they satisfied this need (and other unmet needs) faster and more accurately. Pandora's solution, for example, was simple and fast:

1. Enter a song for the mood
2. Click play.

Pandora's sophisticated music matching and playlist algorithms satisfied the need to *find a new song for the mood* faster and more accurately. The Zune was an immediate failure in the market because it didn't satisfy unmet needs faster or more accurately than the iPod. And it took Apple a decade to launch its own streaming service to compete with Pandora and Spotify. As a result, Apple lost significant market share to two start-up competitors.

Most product management processes lack the ability to help teams analyze how well the competitors' products address the customer needs in the job-to-be-done. The **thrv** JTBD Method enables your product team to stay ahead of the competition by identifying how your products and your competitor's products fail or succeed at satisfying unmet customer needs.

Example: Competitive Analysis

In our example, to beat Apple Maps and Google Maps, we have to identify and exploit weaknesses with how their products get the customer's job done.

We start our analysis with an unmet customer need in the job, e.g. *determine the optimal sequence to make planned stops*. And we calculate the speed and accuracy of satisfying this need. As we saw above, to satisfy this need with Apple Maps or Google Maps takes multiple steps. These steps are manual and time consuming, and the results are likely inaccurate. And from our survey, customers perceive that It takes too much customer effort to satisfy this need.

As a result, this is a competitive weakness based on an unmet customer need. You should repeat this process to analyze all **your competitor's weaknesses** for each need in your market.

5. Idea Generation & Customer Value

Now that we know the market opportunity, the unmet customer needs, and our competitor's weakness, we can generate product feature ideas. In traditional product development, teams often start with brainstorming lots of new ideas. To generate the most ideas, traditional brainstorming has only one rule: there are no bad ideas. Unstructured brainstorming is inefficient because the goal of idea generation is not to generate *more* ideas. It is to generate only the *best* ideas to satisfy your customer's unmet needs in their JTBD.

To generate the best ideas, a product development process should have unambiguous and **quantifiable criteria** to judge the ideas. This is what most product management processes lack, yet it is critical to your product team's success. The criteria to judge your product ideas are, of course, your customer's needs in their JTBD.

Since all customer needs have an action and a variable, your JTBD idea generation sessions are more efficient and focused. The goal is to get your team to generate ideas that will **get the job done for your customer** faster and more accurately. And because each customer need is an action and variable, your team can measure how much faster and more accurately your customer will be able to get the job done with your new idea.

This is a crucial insight in Jobs Theory: **customer value** is getting your customer's job done faster and more accurately and thus with less effort. And since speed and accuracy are metrics that can be measured, when your team is generating ideas, you can judge the ideas using speed and accuracy to determine your customer's effort and satisfaction.

Example: Ideas & Customer Value

In our example, to beat Apple Maps and Google Maps, we need to generate new ideas that will get the job done better. We have already identified an unmet need in the job of getting to a destination on time (*determine the optimal sequence to make planned stops)*. And we have

identified weaknesses in Apple Maps and Google Maps because they satisfy this need slowly and inaccurately.
To generate an idea that will be valuable to customers, we know the idea must help the customer *determine the optimal sequence to make planned stops* faster and more accurately.

In this case, we generated an idea called Sync & Optimize. Since busy people already have their meetings and appointments on their calendars, the first step to *determine the optimal sequence to make planned stops* is to identify the planned stops. Syncing a user's calendar with our new app eliminates the step of a user entering information, thus helping them satisfy this need faster. User's can also add errands to their day that don't have specific times but must be completed at a destination.

The second part of our product idea is an optimization algorithm that will analyze the customer's destinations with times that can't be changed (e.g. meetings) and destinations with times that can be changed (e.g. errands), and reorder the sequence of stops for the user.

We now have a product feature idea, Sync & Optimize, that will deliver more customer value than Apple Maps and Google Maps. Our Sync & Optimize feature is fast because the the user only has to sync to their calendar once on first use and then optimize only once per day with one click (and even this could be automated for the user). It is also accurate in most travel conditions with regular patterns of traffic and knowable weather conditions.

As a result more customers perceive this new feature to take less effort than Apple and Google to satisfy the need. You calculate customer value by determining the customer effort, speed, and accuracy of your solution relative to your competition.

Figure 6 illustrates the customer value that is created by using our three metrics for an unmet need: customer effort, speed and accuracy. The customer value is the difference between the black numbers (Apple and Google) and the orange numbers (our Sync & Optimize feature).

Figure 6
Customer Value: Effort, Speed & Accuracy

Effort	Speed	Accuracy
86%	5 min	20%
25%	1 sec	85%

6. Product Design & Purchase Decision

Now that we haver a feature idea, we need to design the product. People buy products to get **functional** jobs done. But they also need to *use* the product. For example, they need to *interface* with the product, *learn* to use the product, *install* the product and *maintain* the product. These are all examples of **consumption** jobs.

When designing a product feature and a customer experience, your team should use both functional and consumption jobs. When your product designers are designing how a product is going to satisfy unmet needs in the functional job, they should use consumption jobs as a guide. Consumption jobs, like functional jobs, have job steps and needs that measure the speed and accuracy of execution.

Figure 7 on the following page, illustrates the job steps in the consumption job of **interfacing** with an application. The goal of product design is to create a solution and an interface that

enables the customer to get the job done as fast and as accurately as possible. The consumption job of **purchasing** a solution follows the same pattern with job steps that a purchase decision maker must execute and needs that measure the speed and accuracy of purchasing. Your teams can use consumption jobs and needs when designing your solution, including the purchasing process.

Example: Design & Purchase

In our example, to beat Apple Maps and Google Maps, we have generated a feature idea, Sync & Optimize, that will satisfy an unmet need in the functional job. Our next step is to design an interface that enables the user to satisfy this functional need with as few steps as possible.

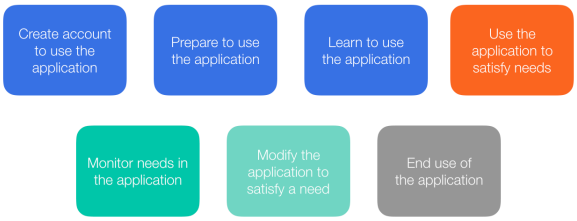
This concept is similar to what we saw with feature idea generation to satisfy functional needs. For example, a step in the consumption interface job is to *use the application to satisfy needs*. To ensure that a customer can use the Sync & Optimize feature to *determine the optimal sequence of planned stops*, we designed a fast and accurate interface. A user has to execute just two steps:

1. Sync with their calendar.
2. Click Optimize button.

Figure 8 shows an example of an interface for the Sync & Optimize feature. The consumption job of interfacing with an application has seven steps and 68 needs, all of which are in the **thrv** Software and available for your design team to use when creating your solution.

In consumer markets, the job beneficiary, the job executor and the purchase decision maker are often all the same person. As a result, the same person is executing the functional and consumption jobs. But in business-to-business and medical markets, these are often different

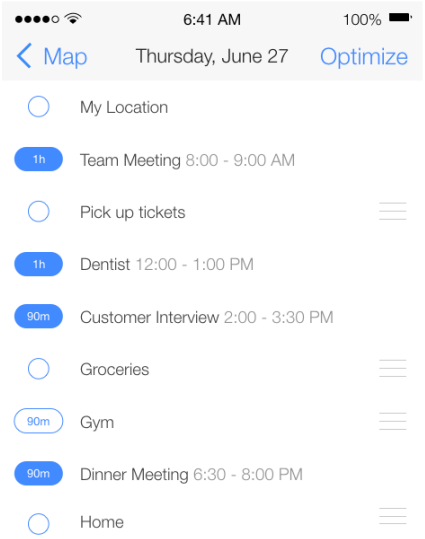
Figure 7
Consumption Job: Interface



people. For example, patients who need to restore artery blood flow are the job beneficiary, doctors who perform surgery are the job executors, and insurers who pay for the procedure are the **purchase decision maker**.

Similarly a sales person who needs to *acquire new customers* (a functional JTBD) is both the job beneficiary and job executor, but a procurement officer or CFO may be the purchase decision maker executing the consumption JTBD of purchasing a CRM solution.

Figure 8
Example: Interface with Sync & Optimize



Jobs Theory and consumption jobs help explain the emergence of App Stores and SaaS applications. App Stores help consumers execute the *purchase* job faster and more accurately. SaaS applications help businesses execute the *interface*, *installation* and *purchase* jobs faster and more accurately. In some cases, SaaS applications eliminate the need to execute the *installation* consumption job. Eliminating the execution of a consumption job is the best design solution because it helps your customer satisfy needs the fastest.

7. Development & Budgeting

Jobs Theory is powerful because it enables cross-functional teams to align with and focus on your customer. Once a team has created a product or feature idea, the next step is to determine (i) the **tasks** required to build the feature, (ii) how much **time** should be allocated to build the feature, and (iii) how much **risk** is involved with building the feature.

Assessing the tasks, the budget, and the risks involved in developing the feature **before investing** in development helps you team mitigate the risk of investing in a feature than it is worth that will not create enough customer value and thus will not accelerate your growth.

Example: Development & Budgeting

In our example, to beat Apple Maps and Google Maps, we can assess the tasks, the budget and the risks in developing our Sync & Optimize feature idea. With the need to be satisfied clearly identified (e.g. *determine the optimal sequence of stops*) and the interface designed, a development team can now determine the tasks required to build the solution.

In this case their are two main categories of tasks. First, there are tasks related to syncing with a user's calendar. This type of calendar sync is well-known and therefore likely lower risk. The second type of tasks relate to building an optimization algorithm to determine the optimal sequence of stops. This is a more sophisticated set of tasks that may require research and development to ensure that an optimal sequence is generated for different geographic areas, different times of day, with different and changing traffic and weather patterns. As a result, this task would have a higher level of execution risk for the team.

Jobs Theory is a powerful way to mitigate these risks because we know the goal of the Sync & Optimize feature is to *determine the optimal sequence of planned stops* fast and accurately. As a development team builds the optimization algorithm, they can measure speed and accuracy and ensure that the improvements are significant enough that customers would be satisfied and would therefore more likely purchase and use the product.

8. Messaging & Positioning

Once you have designed your feature idea, you need to be positioning your product in your market and creating messaging that will resonate with your customers.

Positioning is how you **differentiate** from your competitors. You want to occupy space in your customers' mind that is different from your competitors. In Jobs Theory, you create a defensible position in your market by identifying job step and need that you satisfy differently than your competitors.

Messaging is how your **communicate your value** to your customers. When messaging

misses the mark, it is usually because the message is focused on the product and its features. For example, Magellan (a once dominant player in navigation devices) messaged that its RoadMate product has a "Wide-Angle Lens" and a "G-shock Sensor," both sophisticated technologies.

But how does a Wide-Angle Lens or a G-shock Sensor help a driver get to a destination on time? What need is it satisfying? If messaging describes the product features or technology, the customer has to figure out on their own how (and if) the features help them get the job done faster or more accurately. Messaging based on satisfying the job-to-be-done faster and/or more accurately is easier for customers to understand.

Example: Messaging & Positioning

In our example, to beat Apple Maps and Google Maps, we will need a position in the market that is distinct, and we will need messages about satisfying unmet needs that will resonate with customers.

As we saw above, drivers have unmet needs related to making multiple stops throughout their busy day. These needs are in three different job steps: planning the stops, deciding whether or not to make the drive, and making planned stops along the way. Neither Apple nor Google have features that satisfy needs in these steps, so our competitive position is based on differentiating by getting these job steps done faster and more accurately.

Figure 9 illustrates a differentiated competitive position in the market for getting to a destination on time. The advantage of this position is that a new product (which we will call **OnTime**) will occupy a different space in the customers' mind based on these job steps.

Figure 9
Positioning: Unmet Needs in Job Steps

Now that we have a competitive position, we need to generate messages that will resonate with customers. To generate messages, we use unmet needs in the functional job as well as related **emotional jobs**. Emotional jobs are how customers want to feel and how they want to be perceived when doing the functional job. And customers always want to feel **reduced anxiety** about executing the job (i.e. they want to feel confident that the job steps will be executed quickly and accurately).

For example, to generate competitive differentiation from Apple Maps and Google Maps, our message should resonate with customers by explaining that our solution (called OnTime) will help them overcome their struggle. Since we are targeting the job step of planning stops and the unmet need to *determine the optimal sequence to make planned stops*, our message should articulate that we satisfy this step and need faster and more accurately.

An example message for this need would be: **Your day, optimized:** OnTime automatically arranges your busy day in the optimal order to keep you on time, confident & relaxed. This message articulates *what* the solution does for the customer, *why* it is valuable, *how* it will make them feel, all *without* using any technical or confusing language.

Conclusion: Revenue & Equity Value

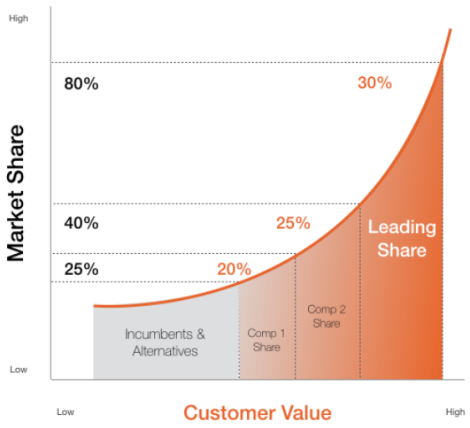
The final step in the JTBD process is to project the revenue growth and equity value that will likely result from getting the customers' job done better. This is a crucial step before any development begins because product teams need to mitigate the risk that investing in a **product roadmap** fails to generate the required growth and value.

Market share (revenue) is typically distributed unevenly, i.e. the leaders in a market take disproportionate and non-linear share. The curve in **Figure 10** illustrates a typical market share distribution.

With traditional methods, the problem with projecting market share is identifying **what causes** this uneven distribution of share. In Jobs Theory, since customers are hiring products to get jobs done, and since customer value is a function of the effort, speed and accuracy of getting the job done, we now have a more accurate way of determining market share and revenue growth. Market share is a function of **customer value**.

This insight gives your team the ability to confidently project the revenue growth your will generate from your product roadmap. And growth acceleration directly increases equity value.

Figure 10
Market Share & Customer Value



Example: Revenue & Equity Value

In our example, the final step is to determine the revenue growth we can generate by competing with Apple Maps and Google Maps.

As we saw above, we calculated that there was a $2 billion market opportunity to help a segment of underserved drivers get to destinations on time. This underserved segment exists because these drivers are frequently going to multiple destinations in unfamiliar locations. And they are willing to pay up to $5.99 per month to get the job done better.

Our new product, OnTime, creates customer value by satisfying unmet needs in job steps that are not being satisfied by Apple and Google. You can calculate the customer value the OnTime roadmap will deliver at a price this underserved customer segment is willing to pay.

As a result, OnTime can confidently project that it would leading share (30% to 40%) in this premium segment of the market (12 million of 30 million customers in the segment) and generate over $800 million of annual revenue. Using a 30% profit margin and a 10x profit multiple,

OnTime has the potential to generate over $2.5 billion of equity value for its shareholders in this underserved market segment.

Next Steps

In this Document, we've demonstrated a customer-focused, needs-first JTBD process that is different than what is used at most companies to design, build, market, and sell products.

At this point, you may feel that JTBD makes sense to you and the benefits are clear: satisfying customer needs with quantifiable criteria means you can accelerate your revenue and equity growth with less risk.

With a stable and quantifiable definition of customer needs, JTBD can help you can more easily gain agreement with your colleagues on the customer value your product roadmap will deliver in your market.

But what's next? How do you start this process and teach your team how to use JTBD effectively?

The **thrv JTBD Certification Course**, is the fastest, most cost-effective way for you and your team to learn all the techniques required to execute the JTBD process in your market. It takes about **3 hours** to complete and includes video lessons, review questions and JTBD exercises in your market. At the end of the course, you will have the skills to execute the JTBD process and you will have generated **valuable insights** into your market, your customers and your competitors.

There following is a list of all the lessons and the topics in the Course:

thrv JTBD Certification Course Lessons

1. Introduction
2. Markets
3. Customers
4. Market Size
5. Needs
6. Unmet Needs
7. Strategy
8. Competitors
9. Segmentation
10. Idea Generation
11. Customer Value
12. Positioning
13. Messaging
14. Design
15. Sales
16. Equity Value

If you need additional help, we offer **thrv JTBD Professional Services** to help you and your team with JTBD training, analysis, adoption, implementation, and execution.

And we offer **thrv JTBD Software**, which is designed with Jobs Theory to help you and your team satisfy customer needs better than competitors in your market.

Included at the end of this Document are **three JTBD examples** that illustrate all the steps and customers needs in a consumer JTBD and two business-to-business JTBDs: (i) getting to a destination on time, (ii) ensuring aircraft airworthiness, and (iii) investing in a private equity fund.

If you'd like to learn more about Jobs-to-be-Done, our training, services or software, contact us at **thrv.com**.

About The Author

Jay Haynes
thrv Founder & CEO

thrv was founded by Jay Haynes, an award-winning entrepreneur and an executive with 30 years of software and investing experience.

thrv is the result of Jay's work using jobs-to-be-done methods with product teams at Fortune 500 corporations, private-equity sponsored companies, and venture-backed start-ups.

With a wide range of experience from working as an investment professional at legendary private equity firm GTCR to working as a product manager at Microsoft to serving as CEO of Strategyn, Jay has seen first-hand the problems that executives and product teams confront when trying to satisfy customers and generate growth and equity value for shareholders.

Jay is an innovation thought-leader who has contributed significant advancements to jobs-to-be-done methods. Jay's advancements enable product teams to dramatically increase their effectiveness in using jobs-to-be-done to reduce roadmap risk, accelerate revenue growth, and generate superior equity value.

Jobs-to-be-done product management helps CEOs align their product teams with customers and focus their company's product development on exploiting competitor weaknesses from the view of the customer.

Jobs-to-be-done is the best way for CEOs and company boards to assess and mitigate product roadmap risk because it reveals the unambiguous and actionable metrics that customers use to judge product satisfaction. **thrv** was created from Jay's years of experience working with CEOs, boards, and product teams in a diverse range of industries from B2B to B2C to medical.

While at the Harvard Business School, Jay studied with Clay Christensen, who pioneered the concept of disruption and popularized the jobs-to-be-done innovation method.

While serving as an Adjunct Professor at the Presidio School of Management, Jay developed methods to train executives and product managers to use jobs-to-be-done effectively.

Before founding **thrv**, Jay served as CEO of Strategyn, where he worked with some of the world's leading companies to transform their product management into a customer-centric, jobs-to-be-done process.

Jay graduated Phi Beta Kappa with highest honors from Brown University, and he received his MBA with distinction from Harvard Business School.

Contact Info

Jay Haynes can be reached at:

jay@thrv.com

(415) 727-1885

linkedin.com/in/jayhaynes

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The following is a fully analyzed **business-to-consumer** job-to-be-done (JTBD) with a complete set of jobs steps and customer needs.

Example

Job-to-be-done: **Get to a destination on time**

Job beneficiaries: **Consumers**

Job steps: **16**

Customer Needs: **101**

Source: 35 consumer interviews and United States 8,521,407 Issued August 27, 2013

Job Step 1:

Estimate the departure time

1. Determine the address of the destination
2. Determine the required arrival time
3. Determine the time it will take to reach the destination
4. Determine how long it will take to find parking at the destination
5. Determine the arrival time in a different time zone
6. Determine if the destination can be reached on time

Job Step 2:

Determine how much time to allow for vehicle preparation

7. Determine how much time is needed to walk to the vehicle
8. Determine how much time is needed to clean off the vehicle
9. Determine if vehicle maintenance is required before the departure
10. Determine if the vehicle can hold items required for the trip

Job Step 3:

Determine how much time to allow for atypical travel conditions

11. Determine how much time is needed to deal with atypical weather conditions
12. Determine how much time is needed to deal with atypical traffic conditions
13. Determine how much time is needed to deal with atypical parking conditions

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Job Step 4:

Determine how much time to allow for errands along the way

14. Determine what errands can be completed along the route
15. Prioritize the errands that can be completed along the route
16. Determine how much time is needed to compete each errand
17. Ensure that an errand that could have been completed on the route is included

Job Step 5:

Set the route

18. Determine the route to the destination
19. Ensure that the route meets route preferences
20. Ensure all route options are considered when setting the route
21. Ensure that road modifications are considered when setting the route
22. Ensure that routine traffic is considered when setting the route
23. Ensure that the selected route leads to the correct destination

Job Step 6:

Plan the stops

24. Determine the optimal sequence to make planned stops
25. Determine where to stop to complete the errands
26. Reduce the number of stops that must be made to complete the errands
27. Determine the route to complete the errands
28. Determine the amount of time that is added complete the errands
29. Determine when a location to complete an errand is open
30. Ensure that a location to complete errand has what is needed
31. Ensure that a location to complete an errand does not have a long wait
32. Ensure that a location to complete an errand has available parking

Job Step 7:

Set the departure time

33. Determine how much time to allow to get to the destination
34. Determine how much time to allow for vehicle preparation
35. Determine how much time to allow for atypical travel conditions
36. Determine how much time to allow for errands
37. Determine the required departure time

38. Reduce the likelihood of failing to be informed of a change in the required departure time

Job Step 8:

Decide whether or not to make the drive

39. Determine how much time is needed to get ready before departure is required
40. Determine what errands can be complete given the amount of time that is available
41. Determine if there is enough time available to get ready before the required departure time

Job Step 9:

Walk to the vehicle

42. Find the keys to the vehicle
43. Find where the vehicle is parked
44. Ensure that needed items are brought
45. Confirm that the location is secured before leaving

Job Step 10:

Prepare the vehicle for the drive

46. Set the vehicle's cabin temperature to a comfortable level
47. Clean off the windows to ensure visibility
48. Unload unnecessary items from the vehicle
49. Load needed items into the vehicle
50. Set the vehicle features for use
51. Load children into the vehicle

Job Step 11:

Drive to the destination

52. Confirm that the correct route is being followed
53. Reduce the likelihood of getting lost
54. Reduce the likelihood of missing a turn
55. Reduce the likelihood of getting cited for a traffic violation
56. Reduce the likelihood of encountering an unplanned delay
57. Reduce the likelihood of traveling in a slower lane
58. Reduce the likelihood of making driving decisions that add to the driving time
59. Reduce the time it takes to determine if it is possible to complete an additional errand
60. Reduce the likelihood of having to make an unplanned stop

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Job Step 12:

Make planned stops along the way

61. Reduce the likelihood of making a driving mistake when making a planned stop.
62. Reduce the likelihood of making a planned stop that would delay the required arrival time
63. Find a parking place when making a planned stop
64. Reduce the likelihood of making a driving mistake when returning to the main roadway after a planned stop

Job Step 13:

Assess if the destination will be reached on time

65. Determine how changes in travel conditions along the selected route will impact the arrival time
66. Determine if planned stops are taking longer than planned to complete
67. Determine if a delay being experienced was taken into consideration when setting the route
68. Determine what speed to maintain to ensure an on-time arrival
69. Obtain an updated estimated arrival time at any point during the route
70. Confirm that the people to meet at the destination will arrive on time
71. Reduce the likelihood of making poor driving decisions when it appears the arrival time will be impacted

Job Step 14:

Reset the route as needed

72. Determine what errands can still be completed if the drive is taking longer than expected
73. Determine if an alternate route should be taken to save time due to unexpected travel conditions
74. Determine how much travel time will be saved using possible alternate routes
75. Determine where to make planned stops when taking an alternative route
76. Determine if planned errands can still be completed when taking an alternate route
77. Add/remove an errand to/from the route sequence
78. Reset the route as a result of an unplanned stop
79. Determine which alternative route to select
80. Reduce the likelihood of having to stop the vehicle to reset the route
81. Recalculate the expected arrival time after changes have been made to the route
82. Inform affected parties of a late arrival
83. Confirm that the affected parties will be available to meet given the new arrival time

Job Step 15:

Park the vehicle

84. Find a parking place close to the final destination
85. Reduce the likelihood of getting a parking ticket
86. Reduce the likelihood of having to move the vehicle from the parking place before it is time to leave
87. Reduce the likelihood of getting towed from a parking place
88. Determine the cost of parking the vehicle
89. Pay for parking
90. Reduce the likelihood of not being able to retrieve the parked vehicle when it is needed
91. Reduce the likelihood of parking in a location where the vehicle gets boxed into the parking place
92. Reduce the likelihood of parking in a location where the vehicle gets damaged
93. Reduce the likelihood of parking in a location where the vehicle gets burglarized
94. Reduce the likelihood of parking in a location where it is required to walk through a bad neighborhood to get to the final destination

Job Step 16:

Walk to the destination

95. Unload the vehicle after parking
96. Find a restroom after parking the vehicle
97. Figure out how to get to the final destination from the parked vehicle
98. Walk to the final destination after parking
99. Carry all needed items to the final destination after parking
100. Clear building security
101. Determine how to get back to the parked vehicle

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The following is an example of a business-to-business JTBD: **ensuring aircraft airworthiness.**

Example

Job-to-be-done: **Ensure the airworthiness of an aircraft**

Job beneficiaries: **Aircraft Maintenance Directors**

Job steps: **14**

Customer Needs: **102**

Source: 84 interviews of Aircraft Maintenance Directors

Job Step 1:

Determine an aircraft's maintenance requirements

1. Determine the manufacturer's inspection requirements.
2. Determine the FAA's inspection requirements.
3. Determine any maintenance requirements specified by the owner/operator.
4. Determine the parts on an aircraft that are not part of the aircraft's original type certificate.
5. Determine the inspection requirements for supplemental completion items.
6. Determine maintenance requirements for the parts of an aircraft where a manufacturer has not fully documented requirements.
7. Ensure that all the manufacturer's inspection requirements are known.
8. Ensure that all the FAA's inspection requirements are known.
9. Ensure that all maintenance requirements are interpreted correctly.
10. Consolidate requirements from multiple sources

Job Step 2:

Track an aircraft's utilization

11. Determine how many hours have been logged on the aircraft.
12. Determine the number of landings the aircraft has made.
13. Predict aircraft utilization prior to the next inspection.
14. Determine the number of flights that are planned prior to the next inspection.
15. Record aircraft utilization data.
16. Transfer data from flight logs to maintenance system.
17. Transfer aircraft utilization data from the logbook to a maintenance tracking system.

Job Step 3:

Determine upcoming inspection requirements

18. Determine which parts require an upcoming inspection.
19. Identify all parts that requires an upcoming inspection.
20. Inspect a part before it times-out.
21. Ensure the aircraft is out of service due to parts having different inspection cycle times.

Job Step 4:

Determine upcoming maintenance items

22. Identify what parts require maintenance.
23. Determine the downtime required for aircraft maintenance .
24. Identify all items that requires maintenance.
25. Determine which optional maintenance items to defer in order to fit the flight schedule.

Job Step 5:

Determine unscheduled maintenance issues

26. Determine the cause of discrepancy as described by a pilot.
27. Communicate all maintenance discrepancies to the mechanic.
28. Discover all possible unscheduled maintenance issues.
29. Diagnose all possible unscheduled maintenance issues.
30. Ensure unscheduled maintenance issues do not disrupt a planned flight.
31. Ensure unscheduled maintenance issues do not ground an aircraft at a location where no appropriate service is located.
32. Ensure an aircraft is not grounded for an unscheduled maintenance.
33. Predict a part's actual maintenance schedule versus the manufacturer's maintenance schedule.
34. Avoid causing passengers undue concern when a maintenance issue is discovered in-flight.

Job Step 6:

Determined needed parts

35. Determine what parts are needed.
36. Verify that needed parts will be available when needed at maintenance site.
37. Determine the cost of the part that needs to be replaced.
38. Determine if a refurbished part should be purchased.
39. Locate the required part for purchase.

40. Order the correct part.
41. Resolve discrepancies between the manufacturer's and supplier's part numbers for the same part.
42. Order a needed part.
43. Ensure delivered parts meet the maintenance requirements.

Job Step 7:

Determine the scope of work

44. Gather the information needed to request a quote for maintenance.
45. Determine if the manufacturer already has the design plans being requested for repair.
46. Estimate the time for maintenance completion.
47. Update the scope of work.
48. Ensure unexpected bulletins from the manufacturer can be covered under a scheduled inspection
49. Communicate inspection/maintenance requirements to the service provider.

Job Step 8:

Schedule an aircraft for service

50. Ensure the aircraft does not overfly maintenance requirements.
51. Coordinate the maintenance schedule with the flight schedule.
52. Ensure flight schedulers are aware of scheduled maintenance.
53. Identify alternative flying solutions for the organization while an aircraft is out for maintenance.
54. Ensure changes in the flight schedule do not require maintenance to be rescheduled.
55. Develop maintenance contingency plans.
56. Provide an aircraft's maintenance records to the maintenance provider.
57. Fly the aircraft from its last point of service to the maintenance service provider's facility.
58. Ensure the maintenance service provider can accommodate the preferred schedule.
59. Choose a facility that can take care of all the maintenance / inspection requirements.

Job Step 9:

Confirm the maintenance schedule

60. Confirm that the maintenance activities that are scheduled will be completed on time.
61. Ensure the maintenance schedule is accurate.
62. Ensure the maintenance service provider is aware of all the service requirements in the scope of work.
63. Ensure the maintenance service provider can provide the maintenance according to the schedule.

64. Ensure the maintenance service provider is prepared for the aircraft arrival.

Job Step 10:

Deliver an aircraft to a maintenance site

65. Determine if a pilot has the flight hours available to fly the aircraft to the maintenance site.
66. Ensure crew is available and not on a time-out when needed to fly aircraft to maintenance site.
67. Coordinate lodging for crew who remain on site with the aircraft at a remote maintenance site.
68. Coordinate getting the flight crew who are not staying with the aircraft back from a remote maintenance site.
69. Ensure all documentation is available at the inspection site.

Job Step 11:

Monitor maintenance activities

70. Verify that all required maintenance has been performed.
71. Determine if the maintenance has been performed to the requirements.
72. Identify the cause of all maintenance issues.
73. Find a solution to squawk found during a maintenance event.
74. Approve/disapprove the repair of a squawk found during the inspection process.
75. Approve/disapprove the replacement of a part that unexpectedly needs replacement.
76. Coordinate the repair of a squawk in the maintenance schedule.
77. Resolve a squawk found during a maintenance event without extending the length of time the plane is grounded.
78. Confirm that the needed number of maintenance technicians are working on the aircraft.

Job Step 12:

Inspect aircraft documentation

79. Enter a maintenance item into the maintenance logbook.
80. Record maintenance logbook entries in a format consistent with previous maintenance logbook entries for the aircraft.
81. Verify that a maintenance logbook entry does not have errors.
82. Enter all completed maintenance activities into the maintenance logbook.
83. Cross-check a maintenance logbook entry with supporting documentation.
84. Enter supporting documentation for a maintenance activity into the maintenance logbook.
85. Verify compliance with maintenance manuals and regulations.

86. Ensure the maintenance logbook is compliant with FAA regulations.
87. Determine that the right inspection was completed for the right FAA regulation.
88. Resolve any discrepancies found in the maintenance logbook entries.
89. Transfer maintenance data from the maintenance logbook to maintenance tracking software.
90. Transfer maintenance data to the maintenance tracking software in a timely manner.
91. Transfer maintenance data from the maintenance logbook to maintenance tracking software without errors.
92. Archive the aircraft's maintenance documentation.

Job Step 13:

Resolve any maintenance discrepancies

93. Ensure no maintenance items are deferred at the end of the service.
94. Ensure no inspection items are deferred at the end of the service.
95. Resolve all maintenance discrepancies at the initial maintenance service provider.
96. Ensure a maintenance activity does not cause a residual problem.
97. Detect minor damage to the aircraft that occurred during the maintenance process.

Job Step 14:

Put aircraft back into service

98. Ensure the interior of the aircraft is client-ready when delivered.
99. Ensure the exterior of the aircraft is client-ready when delivered.
100. Resolve any discrepancies on the final maintenance bill for the maintenance performed.
101. Ensure no unanticipated expenses on the final maintenance bill.
102. Update the aircraft's crew on a change that may have occurred.

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This is another example of a business-to-business market.

Example

Job-to-be-done: **Invest in a private equity fund**

Job beneficiaries: **Limited Partners**

Job steps: **16**

Customer Needs: **138**

Source: 43 interviews of limited partners

Job Step 1:

Determine the investment objectives

1. Gather the information required to determine investment objectives, e.g. inputs from capital providers, stakeholders.
2. Analyze the information required to determine investment objectives, e.g. to coordinate with investment staff, manage the analysis process.
3. Capture all information relevant to determining the investment objectives accurately, e.g. not out of date, incomplete, or misleading.
4. Obtain approval of the investment objectives, e.g. from a board, committee, group, individuals.
5. Agree on changes to the investment objectives, e.g. from a board, committee, group, individuals.

Job Step 2:

Determine the acceptable level of risk for an investment in a private equity fund

6. Determine the risks to consider, e.g. capital risk, liquidity risk, market risk, currency risk.
7. Gather the information required to determine the level of risk, e.g. to get information on the required investment returns or the current portfolio construction.
8. Analyze the information required to determine the acceptable level of risk, e.g. to coordinate with investment staff, manage the analysis process.
9. Gather all accurate information relevant for determining the acceptable level of risk.
10. Weight the investment risks appropriately, e.g. liquidity risk vs. market risk.
11. Obtain approval of the acceptable level of risk, e.g. from a board, committee, group, individuals.
12. Take the right level of risk to meet the investment objectives.
13. Explain the implications of risks to investors.

Job Step 3:

Determine the investment criteria for an investment in a private equity fund

14. Determine which investment criteria to consider in order to meet the investment objectives, e.g. financial leverage, stage of investments, track record of the managers.
15. Gather the information required to determine the investment criteria, e.g. information about the debt markets that may affect financial leverage.
16. Prioritize the investment criteria, e.g. to determine if the use of leverage is more important than the stage of investment.
17. Consider all investment criteria that are relevant to meeting the investment objectives, e.g. the use of leverage.
18. Obtain approval of the investment criteria, e.g. from a board, committee, group, individuals.
19. Obtain agreement on any changes to the investment criteria, e.g. from a board, committee, group, individuals.

Job Step 4:

Identify private equity funds

20. Determine the type of fund to invest in, e.g. direct or fund of funds.
21. Identify funds of possible interest that are currently raising capital in the market.
22. Check all sources to find all possible funds of interest .
23. Determine when a fund of possible interest will likely be available.
24. Determine if access is available to a fund of possible interest.
25. Ensure awareness of all funds of possible interest.
26. Ensure all funds of possible interest are considered while still open to new capital.
27. Ensure that a fund of possible interest is available to all relevant investors, e.g. individuals and public pensions.
28. Understand the investment strategy for a fund of possible interest, e.g. will the fund be leveraged, focus on growth, early stage.
29. Gather the necessary information to compare different funds of possible interest.
30. Gather all necessary information compare different funds of possible interest.
31. Obtain all information about a fund of possible interest.
32. Ensure identified funds are representative of the funds in the market, e.g. the identified funds do not have selection bias based on the method of identifying them.
33. Eliminate funds that do not meet investment criteria from consideration.

Job Step 5:

Evaluate the private equity fund manager

34. Determine the criteria to use to evaluate a potential fund manager, e.g. their track record, their deal flow, their fund investment thesis.
35. Gather the information needed to evaluate a potential fund manager, e.g. details about the capital invested and the capital returned by the manager in the past, how they sourced their deals.
36. Prioritize the criteria used to evaluate a potential fund manager, e.g. deal flow, management fees, track record.
37. Analyze the information required to evaluate a potential fund manager, e.g. to coordinate with investment staff, manage the analysis process.
38. Ensure all information gathered to evaluate the fund manager is accurate, e.g. nothing is out of date, incomplete, misleading.
39. Ensure information needed to evaluate the fund manager can be quantified e.g. can be ranked or scored against other managers.
40. Ensure the evaluation of the fund manager can be explained to others, e.g. a board or committee.
41. Reconcile conflicting information used to evaluate the fund manager.

Job Step 6:

Confirm with stakeholders that the fund will meet the investment objectives

42. Explain to the stakeholders that the fund will meet the investment objectives.
43. Ensure stakeholders understand how the fund will meet the investment objectives.
44. Identify the source of a stakeholder's concerns about the fund meeting the investment objectives.
45. Address concerns of the stakeholders who do not agree that the fund will meet the investment objectives.
46. Gain agreement from the stakeholders that the fund will meet the investment objectives.
47. Ensure stakeholders agree that the fund will meet the investment objectives.

Job Step 7:

Confirm with stakeholders that the fund will not exceed the acceptable level of risk

48. Explain to the stakeholders how the fund will not exceed the acceptable level of risk.
49. Identify the source of a stakeholder's concerns about the fun exceeding the acceptable level of risk.
50. Address the concerns of the stakeholders who do not agree that the fund will not exceed the acceptable level of risk.

51. Gain agreement from the stakeholders that the fund will not exceed the acceptable level of risk.

Job Step 8:

Confirm with stakeholders that the fund meets the investment criteria

52. Explain to the stakeholders that the fund meets the investment criteria.
53. Identify any sources of a stakeholder's concerns about the fund meeting the investment criteria.
54. Address the concerns of the stakeholders who do not agree that the fund meets the investment criteria.
55. Gain agreement from the stakeholders that the fund meets the investment criteria.

Job Step 9:

Determine the size of the capital allocation to the fund

56. Determine how much capital is available to allocate to the fund, e.g. asset allocation targets, current liquidity, cash on hand.
57. Determine the total capital that is currently allocated to private equity funds, e.g. in venture, buyout, real estate.
58. Determine how the allocation to the fund will impact the risk of the investment portfolio.
59. Determine the allocation's percentage of the total investment portfolio.
60. Ensure the allocation's percentage of the total investment portfolio will not exceed an acceptable level.
61. Ensure capital is available to allocate to a desired fund.
62. Determine how the net cash flow of the current investment portfolio will impact the ability to meet the capital calls of the fund.
63. Determine the schedule of capital calls the fund will require, e.g. to get estimates from the manager about the capital calls.
64. Ensure capital calls for the fund occur when they were forecasted.
65. Determine the schedule of the cash distributions that the fund will generate.
66. Distribute cash generated from the fund on the projected schedule.
67. Distribute cash generated from the fund at the projected amounts.
68. Determine how the capital allocation to the fund will impact allocations to other desired fund investments in the pipeline.
69. Determine what percentage the capital allocation to the fund will be of the fund manager's total capital under management.
70. Ensure capital allocated to the fund manager does not exceed an acceptable percentage of the fund manager's total capital under management.

71. Ensure the fund accepts the capital allocation, e.g. the fund doesn't reduce the allocation because it is oversubscribed.

Job Step 10:

Approve the allocation to the fund

72. Gain approval of the fund allocation e.g. by a board, committee, or group.
73. Gather the necessary information to obtain approval for the allocation to the fund.
74. Prepare the necessary information to obtain approval for the allocation to the fund.
75. Ensure the stakeholders understand the investment recommendation.
76. Explain the investment recommendation to the stakeholders.
77. Identify the source of the stakeholder's concerns about the investment recommendation.
78. Address the concerns of the stakeholders who do not agree with the investment recommendation.
79. Gain agreement on the investment recommendation from the stakeholders.
80. Ensure the size of the capital allocation to the fund is approved.
81. Gain approval to invest in the fund before the fund closes.
82. Ensure the allocation approval process is disciplined, e.g. the investment committee factors in the analysis provided and uses the investment criteria to make the approval decisions.

Job Step 11:

Negotiate the terms of the fund subscription agreement

83. Determine which fund terms can be negotiated.
84. Reduce the likelihood that that the fund's terms cannot be negotiated.
85. Determine if the fund terms are competitive with other funds in the market.
86. Ensure other limited partners do not receive better terms.
87. Obtain acceptance from the fund manager to invest in the fund.
88. Reduce the likelihood that the fund manager does not accept the allocation as a result of the negotiating process.
89. Find legal counsel with experience negotiating fund terms.
90. Ensure legal fees to negotiate the terms are reasonable.
91. Obtain required legal counsel.
92. Complete the documentation needed to fund the investment, e.g. the subscription documents.

Job Step 12:

Fund capital calls from the fund

93. Verify the size of the capital call, e.g. make sure that the capital called is the correct amount according to the fund agreement.
94. Execute funding for the capital call incorrectly, e.g. the right amount is funded, the right account is used, the capital is sent to the right fund.
95. Reduce the likelihood that the timing of the capital calls negatively impacts the IRR for the limited partners, e.g. the funds are called too early.
96. Reduce the likelihood that the capital calls are made on too short notice.
97. Reduce the likelihood that the capital calls exceed the amount agreed to in the fund agreement, e.g. there is a mistake in the capital call based on the percentage of the fund.

Job Step 13:

Monitor the fund

98. Determine the current valuation of the fund.
99. Obtain all information that may have an impact on the fund's performance, e.g. news about an underlying investment, changes to the fund's management team or strategy.
100. Ensure the information about the fund's performance is correct, e.g. the valuations are not too high.
101. Ensure information affecting the fund's investments are disclosed, e.g., the fund changes strategy, experiences high turnover.
102. Ensure the fund is not overcommitted, e.g. the manager commits more capital than was raised in the fund.
103. Determine the risk of defaulting on future capital calls to the fund, e.g. to determine if it is worth it to continue investing in the fund.
104. Ensure the fund investment is not diluted, e.g. new investors have a liquidity preference over older investors in the fund.
105. Ensure information received from the fund manger about the performance is consistent for all fund managers.
106. Compare the fund manager's performance to other fund managers.
107. Obtain qualitative information about the fund's performance, e.g. why the fund lags the performance of other funds, what the outlook is for the fund.
108. Prepare defense of an investment in a fund, e.g. to an investment committee, a board, an auditor.

Job Step 14:

Modify or hedge current fund investments

109. Determine if a fund investment should be modified or hedged, e.g. should future fund investments be modified because current allocations are unlikely to meet the investment objectives.
110. Determine what action to take to modify or hedge a fund investment that is not meeting the investment objectives, e.g. should future fund investments be made to hedge new risks in current fund investments.
111. Determine what action to take to modify or hedge a fund investment that is exceeding the acceptable level of risk.
112. Determine what action to take to modify or hedge a fund investment that is no longer meeting the investment criteria, e.g. can a member of the fund's management team be changed.
113. Have the fund manager modify the way they are managing the fund, e.g if they are not meeting the investment objectives or if they are exceeding the acceptable level of risk.
114. Resolve legal issues associated with making a modification to a fund investment, e.g. changes in the limited partner agreement.
115. Reduce the likelihood of losing capital when modifying or hedging a fund investment, e.g. selling a fund investment in the secondary market at a discount.
116. Make a legal break from a fund when it is not performing as expected.
117. Determine the tax implications of modifying or hedging a current fund investment.
118. Reduce the likelihood that external events influence the need to modify or hedge a current fund investment, e.g. don't panic in down market.
119. Reduce the likelihood of extending the fund life, e.g. adding amendments over 10 year life of the fund.

Job Step 15:

Reinvest capital from current fund investments

120. Determine where to allocate capital distributed from the fund, e.g. should a new commitment be made in the next fund or a different fund.
121. Reduce the likelihood of receiving capital from fund investments in a form that has to be evaluated, e.g. stock vs. cash.
122. Ensure capital distributions from current fund investments can be reinvested appropriately.

Job Step 16:

Dissolve the fund

123. Determine the investment returns from the fund.
124. Calculate the investment returns from the fund are calculated.
125. Determine what made the fund a success or failure.

126. Determine how the investment criteria should be modified to make better investment decisions in the future.
127. Determine how the fund evaluation process can be improved to make better investment decisions in the future.
128. Ensure bad fund investment decisions are not made in the future because the lessons of investing in past funds are forgotten or misremembered.