Impact of Changing Pricing Strategy from Perpetual to Subscription Licensing on an Organization

by

Shweta Jindal

M.E. Electrical Engineering
Texas A&M University, 2011

SUBMITTED TO THE SYSTEM DESIGN AND MANAGEMENT PROGRAM IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR DEGREE IN

MASTERS OF SCIENCE IN ENGINEERING AND MANAGEMENT
AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE 2018

© 2018 Shweta Jindal All rights reserved.

The author hereby grants to MIT permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part in any medium now or known hereafter created.

Signature redacted

Signature of Author: ____________________________

Shweta Jindal
System Design and Management
May 11th, 2018

Certified by: ____________________________

Prof. Catherine Elizabeth Tucker
Sloan Distinguished Professor of Management
Thesis Supervisor

Signature redacted

Accepted by: ____________________________

Joan S. Rubin
Executive Director, System Design & Management Program

JUN 2 0 2018
LIBRARIES
ARCHIVES
Impact of Changing Pricing Strategy from Perpetual to Subscription Licensing on an Organization

by

Shweta Jindal

Submitted to the Department of System Design and Management on May 11th, 2018 in Partial Fulfillment of the Requirements for the Degree of Master of Science in Engineering and Management at MIT

ABSTRACT

There is an increasing trend in SaaS businesses to offer products and services via subscription licensing. According to a Gartner Study, 80 percent of software vendors will change their business model from perpetual licensing to subscription pricing by 2020. This implies that existing software companies will need to transition to subscription licensing to continue to stay relevant in the market. Strategy change of this nature is not straightforward, and requires a lot of key departments to come together to execute it well. This thesis focuses on understanding the impact of the shift to subscription licensing on external customers and internal departments (sales, marketing, product management & finance) of organizations that make such a change. Reactions of external customers are analyzed via a case study on Tableau, which recently moved to a subscription based model for its Business Intelligence (BI) software. Senior leaders from various SaaS companies were interviewed to understand the organizational structure required to implement a successful change to subscription licensing. Finally, this study provides some actionable insights for organizations that are planning to switch to a subscription based pricing strategy.

Thesis Supervisor: Prof. Catherine Elizabeth Tucker

Title: Sloan Distinguished Professor of Management
Acknowledgment

I have been tremendously fortunate to have access to an incredible network of individuals at MIT, who provided me with both academic guidance, and industry insight. My advisor, Prof. Catherine Tucker, has played a huge role in helping me to get through the complexities of the research process, offering her guidance along the way and by always pushing me to ask the right questions.

I am particularly thankful to my interview subjects for helping me wrap my head around this broad and complex subject of pricing. I am grateful to senior leaders at Tableau for offering their valuable time to chat with me and for sharing their insights around the strategic shift in licensing. I am thankful to my Sloan classmates and professors who offered useful ideas, and advice. I am deeply grateful to all of them; their time and input has added tremendous value to this project.

I am deeply indebted to my best friend and my loving husband – Vishnu – for being a rock in helping me finish this project. His limitless patience, encouragement and ‘big smile’ kept me moving forward as I relocated from Seattle to Cambridge to pursue my dream of studying at MIT. My mom and dad offered their unwavering enthusiasm and their support kept me positive and focused. Thank you everyone from the bottom of my heart.
Table of Contents

1. Introduction ......................................................................................................................... 8

2. Customer Impact: Case Study - ‘Tableau Software’ ..................................................... 13
   2.1 Pricing Model review: ................................................................................................. 13
   2.2 Customer’s reactions and analysis of their insights: .................................................. 14
   2.3 Gartner Report: Magic Quadrant .............................................................................. 33

3. Implications within an organization looking to introduce a subscription model: .................................................................................................................. 36
   3.1 Role of Sales: ............................................................................................................... 36
   3.2 Role of Product Management: .................................................................................... 40
   3.3 Role of Marketing: ....................................................................................................... 43
   3.4 Role of Finance: .......................................................................................................... 44

4. Recommendations: ............................................................................................................. 46

5. Conclusion: ......................................................................................................................... 50

6. References: .......................................................................................................................... 51
1. Introduction

According to a Gartner study¹, by 2020, more than 80 percent of software vendors will change their business model from traditional license and maintenance to subscription pricing. Cloud and commercial open source software has changed customer behavior. Customers want to move away from buying or leasing technology to buying services based on the usage, and building long-term relationships with vendors. The graph below shows how businesses have adopted cloud-based SaaS, and on-premises subscription over traditional pricing models during the last decade (2010 – 2020)

Source: Gartner (April 2017)
Shift in pricing strategy from perpetual to subscription can be attributed to changes in both buyer and seller behavior. Buyers want to pay based on usage, and do not want to own software. This shift is seen in other businesses such as car sharing services (Uber, Lyft) as well. Some of the advantages for customers are:

a. Subscription-based model provides customers access to an updated software since the updates can be pushed easily via cloud deployments. Deployment is the process of making software available and ready for use. Cloud deployment is a process of making software available online so that customers can access it via any device.
b. Subscription-based pricing gives customers the flexibility to scale up and down according to their actual usage, with minimal upfront risk and capital expenditures.
c. Since subscription is based on a controllable unit of specification, this approach gives business units some control over expected costs and a clearer picture of their IT-related costs. Subscription licensing enables commercial customers to move their expenses from capital expenses (CapEx) to operational expenses (OpEx), thereby helping them to keep lean balance sheets (less affected by the slowdowns in the economy)

Sellers have also seen a shift in how they conduct business. They also benefit from the transition from perpetual to subscription-pricing model as listed below:

a. Sellers are able to monetize software based on usage (e.g. pay as you go/ concurrent licenses).
b. Subscription-based models allow sellers to use a more agile development cycle and reduce the time-to-value for new features and functionalities.
c. Sellers have an opportunity to develop new and creative licensing models to reach prospects and customers in new ways, depending on the needs of the customers (customer segmentation).

In addition to this, vendor has full control over deployments and update cycle (specifically cloud deployment is faster than on-premises). Subscription based pricing brings a *repeatable and predictable revenue stream for the vendor*.

In spite of all the advantages, there are a few reasons vendors are reluctant to move to subscription pricing model.

1. Subscription pricing impacts **bottom line revenue**. Vendors in perpetual licensing model get the entire revenue upfront (minus 20% that accounts for maintenance costs). With subscription model, vendors will only receive a fraction of this amount depending on the length of the contract. It usually takes 2-3 years for a vendor to get to the breakeven point, hence the model change hits the bottom line revenue and not all vendors are ready to embrace this change.

2. As a vendor moves from perpetual to subscription, sales force role changes from a **hunter/gatherer to a farmer**. In perpetual licenses, sales representatives (reps) sell a perpetual license to a customer and they move on to another customer. However, with subscription licensing, sales rep has to nurture a relationship with customer to make sure they are happy with the product, and able to renew in subsequent years. It changes the transaction from selling a piece of hardware/software to adding value to customer’s business needs, and to building a long-lasting relationship.
The shift to subscription affects both internal and external stakeholders in an organization. *Internal stakeholders* involve all lines of businesses - product development, marketing, finance, and sales. *External stakeholders* are the external customers (new and existing) who are subscribing to the software or services, and eventually adding business value to the vendor. For an organization leading a change from perpetual to subscription, it is very important to balance both sides, and to deliver on each aspect (internal and external) to help make this transition successful. My thesis explores the impact on an organization through the lens of these two groups (external customers and internal teams).

My thesis is organized as follows:

a) Section 2 starts with a case study of a company (Tableau Software) that recently underwent a change from perpetual licensing to subscription licensing model. I have looked at online resources along with customer interviews to understand the impact on Tableau’s customers due to the shift in pricing model.

b) Section 3 highlights the implications within an organization (i.e. impact on sales, marketing, finance, and product teams) that is rolling out such a change in pricing strategy. I interviewed a few key members in sales, marketing, finance and product management departments in various SaaS companies to understand the internal impact, and developed key learnings on how a firm should think about these individual departments while leading such a change.
c) Finally, Section 4 provides a few recommendations, and common pitfalls to avoid when an organization is thinking about changing its pricing strategy.
2. Customer Impact: Case Study - ‘Tableau Software’

As part of my thesis work, I was interested in understanding how current and new customers of Tableau reacted to the pricing model change from perpetual to subscription. Full scale change of this nature was rolled out in April 2017. I had access to data that was only 9 months old when I started writing my work (Jan 2018). Hence the data is very limited and initial customer reactions might change over time. *Any mistakes in understanding this impact is my own.*

Sources of Data: Online forums, Tableau community, interviews with customers, anonymous insights on Twitter, Facebook, LinkedIn, and other forms of social media.

2.1 Pricing Model review:

Let’s start with a brief review of the change - Tableau changed its pricing model from perpetual license to subscription\(^7\)^\(^8\) at full scale in April 2017, as outlined in Table 1. In the old model, customers would purchase a permanent (perpetual) license and pay an annual maintenance fee for updates and other product features. In the new model, customers don’t own the license permanently but subscribe to the product and pay a monthly amount. The contract for subscription can vary, ranging anywhere between 1 year to 3 years.
2.2 Customer’s reactions and analysis of their insights:

I wanted to understand how current and new customers reacted to this transition in pricing strategy. This section starts off with a word cloud generated using data gathered online. I analyzed the most prominent sentiments that were expressed and used my understanding to explain what customers want or are implying.

As shown in the word cloud (Fig.1), there are a few terms that were consistently referred to when I read online forums or interviewed customers. I have highlighted a few of these terms below and given a brief analysis of what customers were feeling or thinking. Each section starts with context of the sentiment, followed by real customer quotes\(^2,3,4,5,6\) (wherever applicable), and ends with an analysis of what it means. Through this analysis, my hope is to provide a few actionable insights to companies who are looking to move to a subscription model.

Few sample tweets/quotes that were used in the making of the word cloud:

“Tableau has finally responded to market needs of SMBs; we can finally afford the product”
“Many customers have told us they prefer to purchase software through a subscription model to more easily access the products they want, *reduce upfront expenses and increase flexibility,*” said Tableau Chief Executive Adam Selipsky.

“The subscription model will help my company to *scale more easily* as our requirements grow.”

“Current licensing system under subscription is *very inflexible*; we cannot scale the product as a function of experience level of my team.”

*Fig.1 Word cloud capturing customer reactions*
2.2.1 Inflexible Licensing options (referring to Core Pricing/ Interactor pricing)

Tableau offers two types of pricing options (true for both perpetual and subscription based models):

a) **Per user**: as the name suggests – fee is per user. If there are two users, company must purchase two separate licenses. This is also called ‘Interactor pricing’. The advantage of interactor license is that users don’t have to worry about the underlying hardware and they can take full advantage of the product features. Vendors prefer to give users this option as it de-limits users to get to the product’s full potential without worrying about the cores to run a task.

b) **Per core**: as the name suggests – fee is per core. In other words, an enterprise purchases X number of cores and as long as the users are able to share those cores among themselves, there is no limit on the number of users who can use the product. This is also called ‘Core Pricing’.

Customers have expressed that the licensing system of the product is very inflexible, and users don’t have freedom to adopt the product as a function of their needs (experience level, role in an organization – analysts vs. executives).

**Customers’ quotes**:

“The license system of the product, based on the single user and the different kind of license between user and power-users who are able to create dashboard. This is an obstacle to spread the usage of tableau across the organization”
“the licensing structure is a bit off ... developer license is too big and expensive and the interactor license don’t allow power users enough flexibility to make quick changes to calculations and groupings”

“We might go with their process-based licensing rather than per-user licensing. There comes a point where it makes more economic sense and if you are close to that level, take the time to carefully consider your options. You should count on more people requesting licenses than you start out with initially. Talk to your account manager about what the upgrade path to process-based licensing would look like ahead of time. I believe you can get some credit, but it is not 100%”

“Licensing is so in-flexible, we wish there were few other options apart from core and interactor licenses”

Both pricing strategies (old and new) offer core and interactor pricing. However, Tableau is focusing more on providing interactor licenses to help users take advantage of the product features without worrying about the underlying hardware. Customers prefer core licenses as it enables them to share the resources (cores) within an organization. This tension between vendor and customer expectations is in play as evident from the customer’s quotes, and new pricing model is definitely shedding some light on the dynamics as sales team is pushing interactor licenses over core licenses. Customers have also demanded more flexibility around licensing options, which is not currently offered. I will discuss this more in tiered pricing section.
2.2.2 Tiered Pricing:

Customers have demanded more flexible licensing options that could enable them to roll out product adoption across various departments based on the experience level and the specific roles of its workforce. This has been customers’ top ask even during perpetual licensing days. With the shift to subscription licensing, customers continue to ask for a tiered pricing option as expressed in customer quotes below:

*Customers’ quotes*[^2][^3][^4][^5][^6]:

“*Tableau is a bit expensive for all that it entails. I’ve had several employers begin moving away from Tableau in favor of cheaper or open source items. Since Tableau has so much functionality and flexibility it is not always easy to understand how to achieve your design goals*”

“*Just like a Swiss army knife, you may not need all of its features, and that can be a little overwhelming. It can be hard to find the documentation for specific features if you don’t know how to ask the question*”

“*Huge amount of functionality can be a bit overwhelming to beginners*”

“*We wish tableau provides us with a tiered pricing that will help us to scale the product features as our experience level is increased.*”
“It definitely has a lot of features and neat functions, however, with the maturity of the features, comes a need for intensive knowledge of how to use Tableau successfully. Big learning curve”

“The gradual increase in sophistication of our users and support personnel should be included in the project plan to provide the right new capabilities in stages so as not to over or underwhelm our users”

“I dislike the fact that there are so many features, and that it takes far too long for the novice to become accustomed to the software”

“Overall is NOT a cost-effective solution for "entry level" analytics needs. The product is more advanced but the gap is not evident until business users are well ahead on the learning curve”

Currently Tableau offers a comprehensive product that offers hundreds of features to help its customers see and understand data. Some of the features are highly valuable for core data analytics teams and are less relevant to folks who want to use product to do small scale analysis. Many customers have expressed a need for tiered pricing from Tableau for its products.

**Why tiered pricing?**

1) Tiered pricing is a way to give controlled access to Tableau software as a function of its features. As expressed above, not everyone needs a full feature Tableau. One way to bolster engagement and increase adoption would be to price the product in different tiers to make it
relevant to customers from all levels: Beginner to Advanced. Such an approach in pricing would enable more customers to sign up for the product, experiment with the beginner version and then learn the tool better before they upgrade to the next tier.

2) Tiered pricing is one of the most requested features. As Tableau looks to expand its customer base and extend the tool to more people, tiered pricing might help bridge the gap. There are numerous vendors in Business Intelligence (BI) sector that offer tiered pricing model. Tableau must find a way to offer a flexible licensing option to keep its current customer base, and drive product adoption.

Vendors planning to offer tiered pricing should think about making transitions from one tier to another as smooth as possible. In other words, users should be able to move from beginner to advanced features and vice-versa without dealing with administrative roadblocks. This can be offered more like ‘pay as you learn’ to keep user’s momentum up.

2.2.3 Early adoption:

Tableau product is still trying to make its way to the mass market. The tool is very powerful, and currently only a niche market segment (core data analysts, data scientists) has adopted it. With the shift in licensing to subscription pricing, Tableau will see an increase in adoption from small to mid-size enterprises as well as entry level analysts. Many customers have expressed that perpetual licensing discouraged them to adopt Tableau due to the prohibitive upfront cost of purchasing a permanent license. They further added that subscription pricing is low risk, and will definitely drive early adoption in their small businesses.
Customers’ quotes$^{2,3,4,5,6}$:

“Perpetual licensing pricing is prohibitive for small businesses. With subscription pricing, we will definitely consider Tableau”

“Perpetual licensing cost is a bit prohibitive for our smallish nonprofit. We would love to have more users, but cost per person for online access is a bit high”

“Perpetual licensing is very expensive for startup and SMEs, with subscription licensing small businesses can adopt this product”

“Subscription licensing will help us to adopt the product early on in our product development phase due to low upfront cost”

“Perpetual licensing price tag is fairly high - likely cost prohibitive for a small business who is just looking to try and analyze data that that their POS software won’t do for them”

“Perpetual licensing is quite expensive, especially for nonprofit organizations”

“Perpetual licensing is quite expensive to buy and cannot be used for personal/small business use”
As expressed above in customers’ quotes, Small and medium-sized enterprises (SMEs) couldn’t afford Tableau in the past due to high upfront cost associated with perpetual pricing. The change to subscription based pricing has enabled many small-scale customers to use the product. Subscription pricing has the potential to attract startups and small scale firms who would be willing to try a new BI product. Overall, this transition in the pricing model will increase adoption for the product and help Tableau ‘Cross the Chasm’\textsuperscript{14}, from early adopters to early majority (and perhaps late majority).

\textit{Fig.2 Crossing the chasm\textsuperscript{14} (Greg Moore’s model for product adoption)}
2.2.4 CapEx vs. OpEx:

With a change in pricing model from perpetual to subscription, customers will be able to shift their expenses from capital to operating expenses. Many customers are excited about this flexibility, and some have concerns as noted below.

**Customers’ quotes**\(^{2,3,4,5,6}\):

“I work in a non-profit organization; using **operating expenses** to purchase licenses has helped me to do more with less”

“Using **operating expenses** for software license purchases has helped us to shield against economic turmoil”

“We have a huge team responsible for maintaining software and our finance department knows how to reflect technology purchases as **capital expense**. With the change to subscription model, we would have to cut down this team (and I don’t know whom to fire) and finance department has to learn how to reflect such expenses as operating. It is a lot of work for us”

“Capital assets amortize over time and help us with tax breaks. I don’t want to move my expenses to **operating expenses**”

Shift of expenses from CapEx to OpEx works in customers favor as it helps companies to stretch their budgets from an accounting standpoint. This accounting flexibility is now an option for
software purchases thanks to SaaS. With Tableau’s new pricing model, organizations are able to count subscription expenses as Operating expenses.

**Brief overview of capital and operating expenditures**: 

**Capital expenses** are used to cover long term assets such as property, infrastructure or equipment (including owned software licenses). These expenses show up on the organization’s balance sheet, and from an accounting standpoint must depreciate over the life of the asset to reflect their current value on the balance sheet.

**Operating expenses**: These expenses are shown as part of organization’s profit and loss, accounted as operating expenses that occur on an ongoing basis.

There are inherent difficulties with capital spending on technology (a.k.a Capex):

- Large amounts of cash are required
- There is a fair amount of guesswork (prone to error) required to estimate future capacity needs for static hardware/software
- Approval process to get estimate budget is lengthy and arduous
- Once the technology is purchased, the company is stuck with it – despite technology advancements

Technology (including software licenses) as an operating expense allows a company to:

- Pay only for the capacity it needs at the moment and scale as requirements change
- Ease and speed up the budgeting process because short-term spending requirements are less and have a fairly straightforward approval processes.
- Make multiple investments across the business since capital isn’t tied up in large upfront expenditures
- Fund expenses faster through operations rather than needing to borrow money or divert money from other projects to pay for large, upfront technology costs

Not all customers are happy with moving expenses to operating expenses. Some customers prefer to buy software as a capital asset and amortize it over time to take advantage of tax breaks. Further, if a customer is already on a perpetual license, they have a good understanding of accounting for expenses. Changing to subscription model puts onus on the customer’s finance department to figure out how to change the accounting systems to move expenses from capital to operational budget. **Change is not always welcomed by large organizations.**

### 2.2.5 Flexibility:

Transition to subscription pricing model gives companies a lot of flexibility to adopt the BI product. This ties back to the ‘Early adoption’ point that I made. Since the upfront cost is so low, enterprises feel comfortable in trying the product. If they find that the tool does not satisfy their business needs, they can discontinue the license anytime without worrying about lost investments. Hence customers feel subscription pricing model gives them more flexibility.
**Customers’ quotes**:  

“I have the **flexibility** to try different BI vendors before committing to one – thanks to subscription licensing”

“We have the **flexibility** to scale up and down (referring to cores) depending on our actual usage, and we can add/remove users depending on the business needs”

### 2.2.6 Product Bundling: Subscription + Tutorials + Free trials (greater than 15 days)

Tableau product is very powerful, but it has a steep learning curve. Customers see this gap (ability to learn the tool quickly) as a hindrance to product adoption. Many customers hope to smoothen this learning curve via product bundling.

**Customers’ quotes**:  

“As a self-taught Tableau user, I'd like to see more YouTube or **tutorial videos** for reference”

“Incredibly difficult to use. **Learning curve is super steep** for anyone who is not a data analyst”

“It’s **difficult to learn by yourself**. Nobody in my company knew how to use Tableau, so we all learned by trial and error. The progress was extremely slow in the beginning, and everybody resisted using Tableau. We couldn’t figure out why it was always crashing, why it was so slow, etc. I think the online videos aren’t helpful. I wish there was an easier way to learn how to use it”

“Incredibly **difficult** to use. **Learning curve is super steep** for anyone who is not a data analyst.

*Not very intuitive. Requires a fairly deep understanding by the user to get the most out of it*”
“It definitely has a lot of features and neat functions, however, with the maturity of the features, comes a need for intensive knowledge of how to use Tableau successfully. Big learning curve”

“More online tutorials required, particularly for advanced uses”

“I wish it was more intuitive and user friendly, because I often find it easier to do the data analysis part on Excel and then uploading the csv”

“I do not appreciate how difficult it is to learn how to use the software. It can be a complicated system to pick up and the tutorials are not always easy to follow”

“Tableau is scary but I know I can do it. I need more entry level support”

“For now, I don’t like the 15-day trial. Would be great if it was a full month worth to actually try out to its full potential”

“We need the trial version for more time. Now tableau desktop trial version is just 14 days”

As noted above, the learning curve to master Tableau product is very steep and it can often discourage new customers from adopting this BI solution. One strategy to remove this barrier is to bundle their subscription offering with online tutorials tied very closely to various tiers of product offering to make it easy for customers to go from beginner to advanced stages in a
sequential manner. Currently, Tableau offers some online videos but many customers have found them confusing. In my opinion, change in pricing strategy could have been bundled with a comprehensive online course that can improve the learning curve. Further, extending the free trial beyond 15 days will help customers to learn the tool and realize its full potential, thereby giving them more confidence to sign up for the paid version. There is a silver lining to this bundling approach - customers will not perceive this new subscription licensing as barely a price change but something more powerful. Bundling will create and capture value for customers.

2.2.7 Software Quality:

With the new pricing model, customers have flexibility to discontinue using the product if they feel it is not relevant to their business needs. This puts an additional pressure on Tableau to work on new and innovative features that will continue to attract and delight customers. In the old model, once the customers have bought the license, they are stuck with it for their lifetime – given huge upfront costs. Companies following perpetual model are in control of the product and its customers are on the receiving end. I am not arguing that companies who follow perpetual model usually take a step back, and don’t do innovations, but I am stating that the pressure to do so is far less.

The change in the pricing model is interesting from Tableau’s point of view as well. Subscription pricing model generates a reinforcing loop between product teams and external customers. This new model puts customers in the driver seat. This active involvement on part of customers will generate constructive feedback for product teams to improve their offerings which will delight
customers even more. Product teams are hungry for ideas to improve their customer’s life, and customers are desperate to let the product teams know what is their next pain point. Product team feels incentivized to work on innovative ideas as the impact of their work is visible. In other words, this new pricing model will enable a reinforcing loop that works both in favor of Tableau and its customers!

2.2.8 Low upfront cost but expensive in long run:

As evident, subscription pricing model is very effective for customers in the short term since the upfront cost of installing is very low. However, as the enterprises continue to use the subscription products, there is a point (usually 2-3 years) in time when the line between subscribing and owning a product starts to fade away. In other words, if a company starts with subscription and continues to use the product for next 2-3 years, it is cheaper for that company to own it (perpetual license) vs subscribe it. This sentiment was expressed by many customers. It opens a similar argument of whether to lease a car or buy it. Different customers will have different opinions based on their business needs, and their corporate cultures.

Customers’ quote<sup>2,3,4,5,6</sup>:

“Overtime, **subscription-based pricing can be more expensive.** This is a lot like the lease versus buy debate you may have with your car. If you are a new car fan (like my husband), you want to lease as you may change cars every two to three years. If you only change your car when it’s on its last legs (like me), you’d rather buy. So, as you approach these BI investment decisions: think
about if you are in it for the short term or longer term. Tableau doesn’t offer a hybrid pricing strategy, so you are forced to move to the subscription pricing model eventually”

2.2.9 Experiment vs. Committing:

Building on the previous point of flexibility and low upfront cost, having an ability to buy a subscription will help small to mid-size enterprises to experiment with the product vs. committing by investing a huge upfront cost via perpetual license. It works in the favor of Tableau as it helps the company to grow accounts (adding volume) and reach mass market.

2.2.10 Update frequency:

As the company moved to the subscription model, there is an internal push within the organization to roll out product features at a faster cadence. Some customers have expressed a need for an automatic update feature and more clarity around product update versions.

Customers’ quotes:

"The software doesn’t have an automatic update feature; you have to regularly visit the site if you want to keep it updated. Major updates are announced by a marketing e-mail, but sometimes you fight against a bug while on their site they already have the solution."

"Software updates are way too frequent. We have a large customer base and it’s challenging to keep track of who needs to upgrade to which Tableau Reader version”
"The biggest problems arise with new releases. At times these can interfere with functionality of preexisting dashboards"

"Backwards-compatibility issues. Dashboards generated in older version don’t work well in newer versions"

In the past, updates were pushed on a quarterly basis. Now there is an expectation to release features much more frequently – sometimes on a weekly basis. This has both advantages and disadvantages. Rolling out features at a faster pace helps product teams to experiment and give access to exciting features to customers quickly. On the other hand, enterprises face an onus to update their software frequently, perhaps at the cost of the productivity of their teams. One key feedback that I received while talking to customers as well as reading online forums is that companies are usually one quarter release away. For example, if Tableau releases a new version today, companies will not update to this newer version for another quarter. The primary reason for delayed updates is that teams share their work across the organization, and companies usually set a date to install updates so that the work is not affected. As expected, companies don’t like frequent updates.

Overarching goal is to make updates easier for customers. How?

Inherently, customers who are experts in using a product might be quicker at updating because they understand the potential vulnerabilities updates might fix. Therefore, they might be more
willing to suffer the annoyances of interrupted work and multiple restarts. However, this is not true for everyone.

Software companies are working on making updates more seamless and less disruptive. For e.g. Google’s Chrome web browser installs updates silently and automatically – downloading new information in the background and making the changes when a user quits and then reopens the program. The goal is for the user not to know an update even happened. However, there are some updates that require hardware restart. There is a need for Tableau to get a deeper understanding of its customers to see how frequent updates must be, and how they can be pushed to its customers seamlessly.

Overall, the change in licensing from perpetual to subscription has brought out both positive and negative customer sentiments. There are several advantages to this new licensing offering – low upfront cost, ability to account for subscriptions as operating expenses, early adoption, ability to experiment with the product before making a long-term commitment, software quality, access to frequent product updates, to name a few. As with any change, some customers prefer the old way of licensing and will always push back no matter what the change is. Overall, my research showed that customers are generally happy with the licensing change. Customers always want more and they have expressed a need for a flexible licensing option (aka tiered pricing model) along with a bundled product offering to help them learn the tool as quickly as possible. I hope this analysis will provide Tableau (and other companies who are planning to make a change in
pricing strategy) with some actionable insights to continue to improve its product offerings to
delight its customers.

2.3 Gartner Report: Magic Quadrant

In the Business Intelligence industry, there is a prestigious report published annually by Gartner that measures various vendors on two dimensions - ability to execute, and completeness of vision. Top right corner is called the magic quadrant. Magic quadrant comprises of leaders who execute well against their current vision and are well positioned for future. Bottom right comprises of visionaries who understand where the market is going or have a vision for changing market rules, but do not yet execute well. Bottom left corner comprises of niche players who focus successfully on a small segment, or are unfocused and do not out-innovate or outperform others. Top left corner comprises of challengers who execute well today or may dominate a large segment, but do not demonstrate an understanding of market direction.

In my opinion, Gartner’s magic quadrant is a gold standard to evaluate various vendors against their product offerings to make sure customers’ needs will be satisfied today and in future. Customers have an added incentive to look at Gartner study to get insights on where the market is heading and which all vendors are executing well today and are prepared for tomorrow. Customers get access to 100s of vendors and are able to choose a specific vendor by taking into account factors such as industry, technology, region or company size.
Gartner identifies various vendors into four quadrants by looking at their technology S curve, specifically middle phases of product life cycle via a two-dimensional matrix (completeness of vision and ability to execute) using 15 or more weighted criteria's. Customers want to adopt a BI software that will meet and exceed their expectations today and in future. Magic Quadrant provides customers with a comprehensive tool to evaluate their vendors and make business decisions. As a result, every company aspires to make it to the magic quadrant.

As shown below in Fig.3 Tableau is placed in the magic quadrant for 2018; this has been true for over 5 consecutive years (2013-2018)

*Fig.3 Gartner BI Report\textsuperscript{12} for 2018 (Tableau in magic quadrant)*
As exemplified by the Gartner report, Tableau is an innovator in business analytics solutions and there are numerous aspects that keeps the company at the forefront of being a leader in BI landscape. However, there was a concern raised on pricing from 2017 Gartner report as well as earlier reports. It was pointed out that it has been a challenge for Tableau to offer software at a more affordable price. Not only is the software expensive, packaging (referring to licensing options) is also complex which hinders early adoption.

Quote from Gartner 2017 report – “One of Tableau’s few below-average-rated execution measures continues to be sales experience – with highest percentage of reference users citing cost as a limitation to broader deployment!”.

Since BI market is price sensitive, new lower price market entrants are appealing to buyers, particularly for the more lightweight users in larger deployments. Thankfully, Tableau has responded to this limitation in April 2017 by rolling out subscription pricing to address the purchasing barrier. However, there are some gaps: Tableau needs to offer simpler tiered level pricing, and needs to be more flexible about offering large discounts on large deals if it makes business sense to help with product penetration and adoption. This gap is still prevalent and 2018 Gartner report points out as well.
3. Implications within an organization looking to introduce a subscription model:

This section focuses on understanding the role of various departments within an organization that is looking to make a change in pricing strategy from perpetual to subscription based licensing. I interviewed a few senior leaders in several SaaS companies (small-sized to big firms) in different roles such as product management, sales, marketing, and finance. Based on my interviews, I have summarized some of the key changes that must happen at each department level for a successful transition.

3.1 Role of Sales:

Successful transition from perpetual to subscription is highly dependent on the sales teams. Sales representatives (reps) are at the forefront, and these individuals interact with customers and sell products. For an organization leading this change in pricing strategy, it is very critical to spend time doing extensive research in formulating a “Sales Incentive Plan” that will motivate sales teams to sell the subscription to their customers. It is important to understand the structure of the sales team, their sentiments, and what is important for sales reps to embrace this change. If the reps are not happy with the incentives, they will not try hard to sell the product to their customers. As a result, customer acquisition and retention will suffer, thereby hitting the bottom line revenue for the company.

Sales teams are compensated on the revenue they bring in. Every sales representative is given a quota that he or she has to hit in a given quarter. Bonus is awarded to sales representatives as a
certain percentage of the revenue brought in during a given quarter. If they exceed the quota, their bonus percentage is higher (called accelerator rate). If a rep falls short of hitting quota, then the bonus percentage is very low, as a result, impacting their salaries. To maximize their earnings, each rep tries to meet or exceed the quota. Risk to Reward ratio is very high for sales rep. In most cases, a rep’s salary is composed of two components - fixed and variable. Let’s say, each rep makes 20% in fixed salary, and remaining 80% in variable salary that is tied directly to the quota. As a result, sales reps are focused on short term (a given quarter) to acquire customers.

With the change in pricing model to subscription, customers are moved from short term to long term. To get the same revenue as perpetual licensing, customers must renew the subscription at least for 3 years. Sales rep must be provided with incentives to look beyond their quarterly quotas and build relationships with customers so that the customers renew their licenses. Hence, there is a need to makes changes on sales compensation plan.

To keep sales reps motivated and help with reducing customer churn, they are allowed to take commission on recurring revenue. There are two widely known contracts followed in SaaS and I’ll describe them briefly below:

Annual Contract Value (ACV)

Annual Contract Value looks at the value of a customer’s contract over a 12-month period.
For example, if a customer committed to a 24-month contract of $60,000, that contract would generate $2,500 in monthly recurring revenue (MRR) ($60,000/24 months) and $30,000 in ACV ($60,000/2 years).

*Total Contract Value (TCV)*

Total Contract Value looks at the value of a customer’s contract over its entire duration.

Returning to the example above, customer’s 24-month contract of $60,000 has a TCV of $60,000. If, at the end of their contract, that same customer purchased a different product, paying $10,000 for a 6-month period, the TCV of that contract would be $10,000.

In subscription licensing model, sales reps must be compensated based on the ACV. The most common reason for using ACV over TCV is to accommodate an unpredictable contract term lengths that cause quota setting issues (i.e., when term lengths vary, ACV makes it easier to predict performance expectations and set quotas for sales rep). For plans based on ACV, it is possible to have a measure to recognize and reward multi-year deals. This usually comes in the form of a credit uplift, an add-on incentive or a separate multi-year measure.

Key organizational changes that must happen in the sales compensation plan when a vendor moves from perpetual to subscription model:
1. Base rate of commission per new account is increased for subscription licensing vs. perpetual licensing. This is to take into account for the differences in the deal size in dollar amount

2. Sales structure needs to evolve to include groups such as customer success teams – who will be actively involved with customers for renewals and to find a window of opportunity to cross-sell and upsell. Traditional perpetual licensing sales teams don’t need such a special group.

3. Accelerator rate must be determined in a different way for subscription licensing by taking into account the customer segment sales reps are bringing in and the type of product they are selling.

4. Lastly, pay mix for each sales rep will change from low mix to high mix plans as the vendor goes from perpetual to subscription. Pay Mix is expressed as combination of base and target incentive. High mix plans (50/50) have high-seller impact on customer buying. Low mix plans (85/15) have a lesser impact on customer buying decisions. The reason being risk to reward ratio is high in high mix plans, and this motivates sales rep to work hard to acquire customers and they will do everything to make sure customer understands the product.

In summary:

a) Sales reps play a crucial role in making a transition from perpetual to subscription licensing successful. Their importance must not be undermined.

b) Vendor must do an extensive research in formulating a “Sales Incentive Plan” to motivate sales team to sell the subscription to their customers. It is harder to acquire
new customers than to retain them. Sales rep must have a baseline %age to retain their customers. As a vendor, you must track this metric per customer segment and provide guidance/training to get teams better at their job.

c) Structure of sales teams will need to change to include specials groups such as customer success teams to keep retention rates high.

d) Subscription pricing brings an inherent tension within sales organization. Historically, sales teams are focused on short term, but customer is moved to a long term in subscription licensing (vs. perpetual). There is a need to build strong relationships with the customer and sell the right product. Vendor must recognize this imbalance and make changes to keep sales teams happy and committed to their customers (e.g. ACV, credit uplift, an add-on incentive or a separate multi-year measure). In other words, compensation plan must evolve, and be aligned with the vendor’s goals of acquiring and retaining customers.

3.2 Role of Product Management:

Product team is an integral part of the licensing transition. Role of Product team is to focus more diligently on customer engagement, and to make sure that the product is satisfying the needs of the customers. It is the product team’s responsibility to track metrics such as customer retention, acquisition etc. to get statistical indicators if the product releases are on track and customers’ needs are being satisfied.
Customers, especially those who subscribe for a service, are critical about the value of the product. Due to low upfront cost, switching to another product is very easy for them. Not only that, technology is evolving very fast and it is a lot easier for the competition to catch up with the product if the vendor doesn’t stay ahead of the curve and improve its product offering on a continual basis. Hence the product team needs to make sure that users are engaged with the product. In subscription licensing, software can no longer sit on the shelf. It has to evolve quickly so that customers have an incentive to renew.

Product team also determines how the product is bundled. Since subscription licensing puts customers at the front seat, it is even more important to bundle the product to smoothen the learning curve for the customers. One example is to bundle software with e-learning or other relevant tutorials and offer it as a standard feature to subscribers. Such packages create barriers for competitors to enter the market, and provides additional incentives for customers to buy the product.

*An example of a subscription service that is bundled very well (Bundling with other services).*

Volvo started a subscription car service where a new vehicle is available for a flat monthly fee, that includes insurance, maintenance, and service, roadside assistance, and 15,000 annual mileage allowance (wear and tear protection). This offer is different from leasing since the car manufacturer is covering most of the expenses related to owning a car—insurance, maintenance, and servicing. In addition to all these perks, customers have an option to switch cars and renew for a new 24-month term as early as a year into the initial agreement.
Subscription licensing must focus on increasing the lifetime value of a customer (CLV). As historically known, it is very costly to acquire new prospects than to retain existing ones, so extending CLV is central to retaining customers. Employing CLV as a central metric is vital to increase profitability, retention and overall company’s success. Product teams’ must participate in segmenting customer base and help marketing teams to improve the relevance of marketing with more personalized messaging depending on the customer segment that is being targeted.

Traditionally, product development in perpetual licensing follows waterfall product cycle where updates to the product are pushed on an annual or semi-annual basis. With the change of business model to subscription licensing, firms are moving to the agile product development that involves more frequent updates. Product teams need to embrace this change, and adopt a mindset to “experiment and fail fast” to iterate and bring out exciting features to the product on a regular basis.

In summary:

a) Pricing strategy must involve all functions of an organization. It is not limited to the sales and marketing teams. Product teams have a huge role to play and they must be involved right from the beginning.

b) Whenever a change in licensing is made (for instance: perpetual to subscription), extra effort must be taken by the vendor to differentiate the product (e.g. bundling the product offerings with educational tutorials or bundling with other services) to make sure
customers don’t perceive the change merely a price change. It must create and add value
to the customers.

c) Subscription licensing must focus on increasing the life value of a customer (CLV). Product
teams must actively determine ways to maximize CLV.

d) Product teams need to embrace agile product development cycle and be prepared to
iterate quickly, and adopt a mindset of ‘experiment and fail fast’

3.3 Role of Marketing:
Pricing change must be communicated well to the customers. The impact of the change is directly
proportional to how the messaging is done. When an organization changes its pricing strategy
from perpetual to subscription, there is an inherent inertia for customers to push back on the
change. Hence there is a need to package the messaging around the value-added benefits that a
new pricing strategy would bring for the customers. Sales and Marketing teams need to work
very closely to find a way to communicate licensing options to new and existing customers. For
new customers, this is relatively easy. Marketing teams can offer the new pricing model
highlighting its advantages and clearly articulating the value proposition for the customer.
Thankfully, many companies are already offering subscription licensing and most of the
customers are familiar with the offering. For existing customers, it is a bit tricky. As a vendor, it
is important to deal with existing customers on a case by case basis. The goal is to make sure that
current customers don’t feel left out that might make them angry and encourage them to move
to a competitor product. Marketing team must work very closely with sales teams to
communicate various options available to these existing customers to help them make an
informed decision – whether to move to subscription, or stick with perpetual licensing, and the pros and cons of those decisions.

3.4 Role of Finance:

Companies that are undergoing a transition from perpetual to subscription pricing model have to involve each and every functional unit within the organization. Finance department is another important department because it handles bottom and top line revenues for a firm.

For the past 500 years or so, double-entry bookkeeping has been the cornerstone of accounting. However, this doesn’t capture the dynamic, ongoing revenue relationship vendors have with their customers once the business in moved to subscription model. Subscription business model brings in a lot of changes to the finance department and there are certain metrics that need to be accounted for -

a) To manage complex changes that can interfere with downstream processes – such as mid-month cancellation – resulting in credits or refunds – impacting revenue recognition

b) To value one-time revenue differently from recurring revenue

c) To measure business based on both past and future deals (renewals etc.)

Finance department is also answerable to the executive team. CEOs and boards members want to review additional metrics such as ARR (annual recurring rate), churn, annual contract value (ACV) in addition to balance sheets and income statements.
As a vendor moves from perpetual to subscription pricing, there will be a drop in the bottom line revenue in the short term. Finance department must be able to articulate this change to the board members and set expectations for Wall Street.
4. Recommendations:

I hope to leave readers with a few recommendations on how a firm should think about transitioning to a new pricing strategy. I will start with some of the common misconceptions\(^\text{13}\) that prevent companies from moving to a subscription licensing model. As noted throughout my work, most companies are moving away from perpetual licensing, and there is an internal push to move into subscription licensing. For a successful execution of such a pricing change, firms must think about this transition holistically.

4.1 Few myths that prevent companies from moving to subscription: This section is adapted from the McKinsey report\(^\text{13}\) authored by Chao, Kiermaier, Roche, and Sane

a) Myth 1: It is important to move to cloud to make the transition from perpetual to subscription licensing

Most companies think about cloud and subscription as synonyms. However, this understanding is not correct. It is important for companies to distinguish between deployment mode (cloud vs. premise) and pricing model (perpetual vs. subscription). As the demand for on-premise subscriptions has increased over the last 5 years, firms can think about rolling out subscription offerings for on-premise offering first (in a matter of few quarters) before spending a significant time rolling subscription first for cloud offering. This approach has an advantage that it enables firms to learn how to do a small-scale transition (on-premise first) and then use those learnings to launch a larger scale transition (cloud).
b) **Myth 2: Subscription pricing doesn’t impact CLV; in other words – it is a zero-sum game between vendors and customers.**

Many companies think that subscription pricing does not impact customer lifetime value (CLV). Let me use an analogy of leasing a car vs. owning to explain this myth. If customers want to use a software for a longer period (>3 years), they will realize very quickly that the cost of owning a subscription license is way more than the perpetual license and hence customers will not be willing to sign up for subscription (economically speaking). However, if we look more closely, this is not true. If a vendor is able to create business value for customers, the churn will be low. Customers will be willing to pay more for the services and product features that address their core pain points. Perpetual products have a higher tendency of becoming a shelf ware, and that’s when customers will lose interest and perhaps walk away or look for alternatives. Striking the optimum balance between right subscription prices, and high rates of adoption can substantially increase the customer lifetime value for the vendor.

c) **Myth 3: Go with either subscription or perpetual. Managing both offers for the same product is very complex to manage:**

There is a tendency for companies to move to subscription pricing model and phase out perpetual licensing completely within a month period. There are some examples of companies who did very well by following this approach (e.g. Adobe) but this is a myth and not every company needs to follow this approach to transform their businesses. The approach varies depending on the industry (B2B vs. B2C). After talking to various customers, I have found that a hybrid model offering both perpetual and subscription
licensing options for 2-3 years can protect revenue for the vendor and offer a safe transition space for customers. This approach empowers salespeople to position the hybrid offering to customers in an effective manner.

d) **Myth 4: The pace of transition for subscription is limited by customer appetite:**

There is an internal debate in organizations regarding how to pace the transition, and vendors often worry that customers won’t be open for the change and will push against it. This is another myth and companies thinking about making this transition must not put undue emphasis on customers’ appetite. The subscription model has been tried and tested already. It has proven to be successful and customers are totally aware of the pros and cons. As a result, barrier to adoption is very low. Bottleneck to the transition lies at the vendor level (for example: Is my sales team big enough to handle the transition of thousands of customers). Vendors must be willing to bear short term cash expenditure and revenue declines for a faster transition to subscription model. Along with this, operational efficiency and motivated sales force is critical for the success.

e) **Myth 5: Customers who own perpetual licenses will never give up their licenses and hence will never migrate to subscription.**

This myth seems counterintuitive and brings back the argument of leasing a car/ owning one. If I own a car, why I would I want to give it up to lease another one? But the answer is logical. The migration brings an opportunity to clean up years of complex perpetual contracts, eliminate unused licenses (analogous to old car’s maintenance and servicing cost), and to negotiate subscription contract aligned to true business needs. The onus falls on vendor to use data to segment the customers in a right away and present them with
the right subscription package. In a nutshell, migration to subscription will benefit both vendor and customer if the messaging is done right and vendor understand the needs of its customers well.

4.2 Key Recommendations:

a) Salespeople are at the front line to convert customers to subscribers, and they must be motivated via ‘Sales incentive plan’ to sell, cross-sell and upsell products and services to the best of their abilities.

b) Spend a lot of time setting subscription price points thoughtfully to drive both adoption and customer lifetime value (CLV).

c) Use data analytics to segment customers and integrate dynamic pricing (discounts, or extra incentives) for customers to transition to subscription licensing. Educate sales force and help them to build dedicated teams to execute migrations by tailoring the subscription offering to the customer’s needs. *One size fit all approach doesn’t work very well.*

d) Differentiate subscription offerings through bundling (free tutorials), customer-success services, and flexibility around contracts.

e) Shift to subscription business model is a cross-functional transformation affecting the entire organization. This implies that every group in the organization – sales, marketing, product management, engineering, finance, and customer services – must come together to develop strategies to make this shift successful. Every group has a role to play, and if each player is able to orchestrate their role well, transition to this new business model can be very rewarding and successful.
5. Conclusion:

Change in pricing strategy impacts customers directly. Shift from perpetual to subscription pricing model is common in the SaaS industry, and as a result, customers are aware of the pros and cons of the change. From my independent research, I found out that customers are generally happy with the subscription offering and prefer it over the perpetual licensing. Vendors must take advantage of the inherent advantages of subscription offering. Vendors must communicate the change to the customers effectively, and offer unique differentiated products (bundle product with added incentives) to delight its customers.

As with any strategy change in an organization, pricing strategy encompasses every department in an organization and all key players – sales, marketing, product, and finance teams must come together to drive change. Role of sales department in driving this change is indispensable and there is a need to spend a lot of time to come up with a right ‘Sales incentive plan’. No organization can succeed with this pricing strategy if sales teams are not motivated to sell the right product to the right customer. It is also important to spend a significant amount of time figuring out the right price for a subscription licensing to balance the customer’s expectations and vendor’s revenue targets. Finally, when an organization is planning to move to subscription licensing, it is important to think about product differentiation along with product bundling to create value for the customers. It is important to ensure that customers don’t perceive the strategy change merely a price change but something more powerful.
6. References:

5. https://community.tableau.com/thread/232853
6. https://community.tableau.com/message/477543#477543
7. https://www.tableau.com/pricing
15. https://twitter.com/tableau
17. https://www.gartner.com/technology/research/methodologies/research_mg.jsp