

The Optimal Sales Funnel for a SaaS Product in Real Estate

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Article Info

Article history:

Received Aug, 2023
Revised Aug, 2023
Accepted Aug, 2023

Keywords:

Churn
Customer Retention
Dynamic Pricing
Engagement Strategies
Machine Learning
Onboarding
Predictive Analytics
Real Estate
SaaS (Software as a Service)
Sales Funnel

ABSTRACT

The real estate industry has seen more dependence on SaaS solutions as tools for efficiencies, data, and CRM. However, the best SaaS products are the services they provide and the sales funnel that results in customer acquisition and profitability. This paper aims to review the major steps of the SaaS sales funnel and its application in the real estate industry of Reonomy Company, where these stages involve: awareness, consideration, decision, onboarding, and retention. They all have a significant function of transferring potential buyers from when they get their attention to when they become loyal customers. Many struggles often come with SaaS having high churn rates, which are dangerous for revenues. It also shows how ML can be used in this case to help predict and even prevent churn by defining high-risk customers. Promotional emails, offers, discounts, and dynamic pricing models are discussed as important techniques that address customer churn and retention. Contacting all the users based on real-time data, SaaS companies provide value to both nominally logged-in and highly active customers. Analyzing Reonomy's application of customer retention with ML reveals the potential of a highly designed funnel for preserving customer bases and maximizing CLV. The observation supports the need to synchronize the data collected by machine learning algorithms with the company's marketing and customer service strategies as critical for sustainable growth in the highly competitive real estate SaaS industry. Based on the analysis in this paper, it becomes clear that data analytic approaches help to cultivate sustainable consumer relationships and business profitability.

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1. INTRODUCTION

Technology has, therefore, emerged as one of the benchmarks for delivering efficient services in the real estate market. One of the most groundbreaking innovations that has been observed recently is Service as a Software solution or SaaS. SaaS solutions offer a range of services to the real estate industry through data management, property analytics, and customer relationship management systems. The use of these

platforms helps real estate professional to simplify their work, analyze different aspects and manage their businesses. Ironically, the success of SaaS products is not just predicted by the services they bring to the table but also by how they are positioned and sold to a potential customer. A well-constructed and highly effective sales funnel is essential for the continuous flow of customers, starting from their acquisition to retaining. In the context of SaaS, a sales funnel is defined as the process that potential customers experience in their

journey from the time, they learn about a specific product to the point at which they are continually subscribing to the service. These stages can be broken down into five primary phases such as awareness, consideration, decision, onboarding, and retention. All these phases are essential in cultivating the prospects to get engaged, filtering what they are interested in, and becoming paying customers. As with any other industry, this turnover can be detrimental to the revenues in the SaaS real estate industry; thus, a proper sales funnel that reduces churn and optimizes for CLV is crucial.

The industry proves complex, an area that challenges SaaS firms since it entails various customer personalities, including property developers and investors, brokers, and real estate agents. With different customer segments, customers have different requirements or frustrations, and this is where marketing strategies and customer service must differ. Furthermore, the length of time and recoverable assets linked to the real estate SaaS product sales cycle are likely to be stretched due to the high-value and complex nature of their offering. Without proper funnel optimization, SaaS businesses could lose customers at any stage in the funnel because of incorrect target audience definition, ineffective messaging, or lack of proper support. This means that what is particularly important for a company is also to try and optimize its sales funnel to make sure that the customer is eased smoothly into the different stages of the buying process right from the time he or she has the initial awareness that a company exists and has something that he or she may need. An excellent example of how to properly manage the sales funnel in the SaaS real estate niche is the Reonomy application, a CRE data and insights business. Reonomy supports portfolio analysis for the real estate industry

and offers search tools to monitor the trends and make the right decision regarding the investment instead of the property. In order to cover as many potential clients as possible, Reonomy has set up a typical sales funnel approach tailored to the real estate industry. From awareness campaigns for property developers to giving their initial impressions to colossal clients, Reonomy's attitude toward the sales funnel is informative for real estate SaaS firms, in particular, about how to lessen shrinkage and retention of its clients.

It is also evident that the sales funnel strategy applied to Reonomy's case still takes into account not only the new customer base but also the existing one. Discussed phases are equally important for different business models. However, the retention stage is crucial for the SaaS category as clients' acquisition costs are much higher compared to the cost of their retention. Reonomy then applies machine learning to determine which users of its service are more likely to churn. Because of the frequent interventions within those consumers, the company has been able to correct its performance and retain many customers by lowering its churn rates. The purpose of this article is to disentangle the real estate SaaS products' sales funnel and to examine Reonomy as an example of the respective field. It will be aimed at finding the key moments of customers' leakage and suggesting improvements at every stage of the funnel with a particular concentration on churn inaccuracy based on machine learning and many more. This article will map the customer journey from the first time they hear about a SaaS company, their first use, and their loyalty with the aim of showing how SaaS companies can do the following to maximize their sales funnel and achieve sustainable growth within the crowded field of real estate technology.

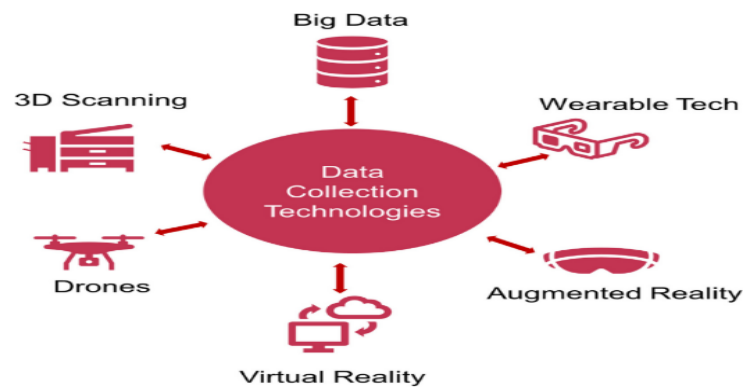


Figure 1. Digital real estate

2. THE SALES FUNNEL OVERVIEW

a. Definition and Importance of the Sales Funnel in SaaS

Speaking of SaaS, a sales funnel defines steps a buyer takes before using the product or choosing not to, starting from the first moment they learn about an opportunity to purchase a specific software [1]. However, for SaaS businesses, particularly for organizations

involved in the real estate industry, this funnel is crucial as many customers have unique needs. Because each stage of the funnel would be optimized, SaaS organizations can effectively direct consumers to the point of conversion and ultimate loyalty [2]. The sales funnel also provides information on where the prospects may leave, meaning the company can develop strategies to reengage such prospects to reduce their dropout rate.



Figure 2. B2B Sales Funnel for SaaS Companies

b. The Five Main Stages of the Funnel

The SaaS sales funnel can be broken down into five key stages,

each serving a specific function in guiding potential customers through their decision-making process:

Table 1. SaaS Sales Funnel Stages and Key Actions

Stage	Description	Key Actions
Awareness	Initial discovery of the SaaS product.	SEO, Paid Ads, Social Media Marketing, Email Campaigns.
Consideration	Potential customers evaluate the product based on their needs.	Product demos, webinars, whitepapers, case studies.
Decision	Customers decide whether to subscribe to the product or not.	Clear pricing policies, customer support, ease of use, discounts.
Onboarding	The process after subscription where the customer starts using the product.	Tutorials, training resources, customer success teams.

Stage	Description	Key Actions
Retention	The stage where the focus is on keeping the customer loyal.	Customer feedback, product updates, loyalty programs, churn prediction strategies.

1. *Awareness*: At the beginning of the funnel, the prospects get to know of the existence of a given SaaS product. This is undoubtedly instigated mainly through marketing strategies, including SEO, Social Media, and Email Marketing Stage (HubSpot). The goal here is to have a big audience to show them what the product is capable of so that they can explore it on their own. This was an important pointer for businesses where they needed to guarantee that clients were engaged with appropriate messages so as to keep them at such preliminary stages [3].
2. *Consideration*: During this stage, prospects are closely deciding whether our SaaS product addresses their concerns. They may register for product presentations, listen to the webcast sessions, or download case studies. The goal at this point is to give more information about the private product, why it helps customers solve their problems, and how it is superior to other products [4]. The prospect must be guided through the next stage at this point, and one of the main issues is to ensure that the product characteristics suit the customer's requirements [5].
3. *Decision*: The other critical phase is the decision phase, which is when clients decide whether they are going to subscribe to the product. Some of these factors include price – premium or value, and customer service, to mention but a few [6]. Hence, the pricing policies need to be well spelled out, and the onboarding process looks easy if companies are not to lose potential clients [7]. Huge rates of CAC due to uncertain ROI or complex recruitment processes may eventually cause high churn in this stage.
4. *Onboarding*: After a customer has made such a decision to subscribe, fewer onboarding procedures are needed. The post-implementation adoption and use drive the focus on user onboarding since the users will have to get perceptive value from the product. Negative onboarding experiences or lack of clear direction and adequate support catalyze the creation of negative perceptions by customers, which may ultimately result in customer attrition [8]. On the other hand, organizations enrolled in guided tutorials, customer success teams and written training resources help to enhance user interaction and satisfaction levels [9].
5. *Retention*: The last stage of the funnel model is retention, which is when the SaaS companies concentrate on making the customers happy and retaining them. The cost incurred to serve a customer is far cheaper than the cost incurred trying to win over a new customer, and this phase is long-term business defining [9]. This is because clients may need constant upgrades of the product, may require being offered incentives to be loyal, or may need to be attended continually by the vendor's support [3].

c. Churn Risks and Opportunities in the Funnel

There are always possibilities of customer churn at every step of the prospect journey or, in other words, at various stages of the sales funnel it forms [10]. In the awareness stage, churn risks include poor targeting, while in the consideration stage, churn risks include wrong expectations or unclear pricing strategies. During the decision-making stage, customers are likely to cancel their subscription if they find the onboarding process complicated or if the ROI of the product needs to be more specific. During the onboarding stage, a poor UX can lead to high churn, while in the retention

phase, customers may opt out on the belief that the product that they are utilizing does not hold value or that there is a better option out there [4]. Combining all these, the funnel still has its possibilities for enhancement at each stage. Besides, clear messaging, marketing towards specific customers, and active onboarding help decrease churn and make SaaS companies' customer journey go through the funnel more smoothly [5]. Other factors can also be used in conjunction with predictive analytics, such as customer feedback, to note at-risk customers so that companies can try to salvage the relationship before the customer churns [6].

Table 2. Common Churn Risks in SaaS Sales Funnel

Stage	Churn Risks
Awareness	Poor targeting, unclear messaging, irrelevant ads or content, technical jargon.
Consideration	Mismatch between product features and customer needs, complex pricing models, poor customer education.
Decision	Complicated onboarding, unclear ROI, insufficient product value.
Onboarding	Difficult user experience, lack of support or guidance, slow onboarding process.
Retention	Outdated product value, competitive offerings, inadequate customer support.

1. Stage 1: Awareness

a) Importance of the Awareness Stage in SaaS

The awareness stage is the initial and one of the most critical steps in the SaaS sales funnel, which resembles the first stage when the potential consumer learns about a particular product or service [11]. When it concerns SaaS business in real estate, it is not only about increasing public awareness and using proper marketing strategies but also about how to attract attention in a world of potential distractions. In this stage, the SaaS companies focus on reaching out to the brokers, developers, and property managers in their quest to increase efficiencies and effectiveness in managing the

plethora of data. It ensures that before prospective customers start adopting a company's products, the firm has made the customers aware of its brands.

Criticizing this stage cannot be justified, as it is the essential step on which the whole journey of the customer depends. Otherwise, potential leads do not proceed lower through the funnel of the conversion matrix. Real estate professionals are among the most picky since work involves aspects such as market review, client handling, and property sales and rentals. Hence, the cash in communicating in the awareness stage is to ensure that it sends out messages that are relevant for each real estate agent and also demonstrate the importance of the SaaS platform.



Figure 3. The Essential Stages In The SaaS Sales Process

b) *Marketing Channels: SEO, Paid Ads, Social Media, and Email Campaigns*

Marketing that occurs in the awareness stage is all about identifying the correct targets to reach through the channels. In particular, SEO analysis is a significant factor that contributes to making the company website and content easily accessible to many real estate professionals in need of solutions online. SEO is implemented as a long-term marketing strategy, and RHS fields pertinent keywords that will meet the needs of property managers, brokers, or developers to assist in directing organic traffic to the company's landing pages (Gill, 2018). Paid advertisements can also boost traffic generated from organic search operations by focusing on specific keywords or groups of people. Another way of creating awareness of SaaS products

involves using pay-per-click (PPC) advertising, where SaaS firms target people who search for technology in the real estate sector to advertise their products.

Social media marketing is another crucial medium that brings awareness, especially when used in conjunction with quality content marketing tactics showcasing critical features of a SaaS product. LinkedIn, Facebook, and Twitter offer the company an opportunity to reach real estate professionals and then provide educational information, real-life examples and success stories to demonstrate the value of the product [12]. Moreover, the SE's email marketing to presorted lists of individual realtors can effectively qualify the leads by offering helpful knowledge, tendencies, and updates about the SaaS to the persons who can obtain the benefit from it during the awareness phase.



Figure 4. How to Develop a Content Strategy in 7 Steps

c) *Churn Risks at the Awareness Stage*

The primary threat in the awareness stage is the turning of potential leads due to wrong communication messages or segmenting of the target market. When it comes to software as a service business in the real estate industry, firms have to accept the fact that their market is rather heterogeneous. This stage remains viable and can lead to high turnover rates since property managers, commercial brokers, and developers have different requirements [13]. For instance, if a marketing campaign discusses features that are of interest to developers only but not to property managers, the latter will not linger around in the funnel as they will not consider the product relevant to them.

A second example of churn risk at this stage is if the language used by leaders or in strategic messaging needs to be clarified or more technical. Such websites may be too complicated for real estate persons who may not have enough time and knowledge to interact with rather product-oriented and heavily jargon texts. In the case where potential customers fail to understand the benefits of that particular product, they may not bother even going through the sales process [14]. Basic, uncomplicated information that would allow consumers to focus on the advantages of the product that is being advertised should be presented clearly.



Figure 5. Customer Churn

d) *Optimization Strategies*

Various optimization strategies can help SaaS companies reduce churn and better retain leads during the awareness stage. Digital marketing segmentation is one of the most efficient methods that divide the target market depending on their position in the sphere of real estate, the size of their management company and their territory. According to [15], if marketing messages reflect the challenges faced in each segment, then the right audience will be reached. For instance, a SaaS product that provides CRM

solutions may describe different applications when marketing specific services, such as commercial brokers, residential agents, or property developers.

Another robust marketing optimization method is A/B testing, where companies can test marketing copy, the landing page and call to action to see which will yield the best results. Through regular experiments and iteration of marketing campaigns, SaaS organizations are capable of enhancing the rates of conversion and the quality of leads (Rohe, 2019). Another example of

enhancing engagement is providing the user with more relevant content, which is the closer the content matches the user personas. Using more personalized content, including email communications, advertisements, and targeted landing page copy that directly addresses a segment's pain points, can better grab those individuals' attention as well as encourage them to move deeper into the funnel.

Further, content marketing also has a vital role to play in the case of awareness stage optimization. Thus, the more practical, relevant, and problem-solving content a SaaS company creates, the better it will place itself in the real estate industry and the more trust the target audience will have in it. Such content may be in the form

of articles or blog posts, research papers or white papers, webinars, infographics, and so on that create awareness about the company and showcase the SaaS platform to its intended audience.

The awareness stage is the first step of the SaaS sales funnel, and therefore, companies need to impress potential customers [16]. SaaS companies within real estate can also adopt customer acquisition strategies by embracing a combination of SEO, paid ads, social media, and email campaigns while ensuring that the risks of customer churn are contained through targeted marketing and content. Segmentation in digital marketing, A/B testing, and content targeting are the musts so that the message gets in front of the right people and moves them further along the buyer's journey.



Figure 6. SaaS Marketing: 5 Brilliant Strategies for Maximizing Your ROI

2. Stage 2: Consideration

a) Explanation of the Consideration Stage

In the consideration stage of the SaaS sales funnel, consumers weigh their needs against the offerings of the company and decide if they require the product. This stage is crucial as it moves the consumer from the awareness level to the interest level concerning the

product. With that in mind, prospective clients are not merely recipients of information but rather active seekers of solutions. Still, in the peculiar real estate SaaS context, it is the consideration stage that should be understudied because real estate practitioners like brokers, property managers, developers, and other stakeholders demand a more potent set of features suited

to their niche requirements [17]. Companies must, therefore, ensure that their product gives a clear indication of how the customer problem is solved, in this case, by the product. At this stage, people use additional and far more specific materials like live demos, Webinars, and white papers to get the information required for decision-making. Smith, (2019) notes that such resources facilitate a better understanding of the positioning of SaaS products and open up chances to engage value-added customer concerns. Furthermore, this stage involves an emphasis on proving trust and ROI as potential clients compare their options with those of the available platforms.

b) *Activities during the Consideration Stage*

In the consideration phase, SaaS firms offer many tools to capture potential clients and highlight the benefits of a product. Of all the methods, the product demo holds a lot of promise for getting the word out on the impending launch. Product demos are usually beneficial because potential customers are able to see the functioning of the software, and its functionality is explained through the context [19]. Demos can also be delivered in a live format, but regardless, the delivery lets the company emphasize certain features and explain his or her problems to the prospect.

Webinars also help in the consideration stage since one has opted to look for more information regarding the product. Such virtual meetings allow SaaS providers to provide additional information about the

advantages of the offered product. Webinars might also have a question-and-answer role play, making it even more interactive. In Patel, A., (2017) view, webinars help the company to become a source of information and build value into the sale, making the product more attractive to a buyer. Further, whitepapers act as an essential piece of knowledge in this stage. The whitepaper can contain information regarding case studies, research data or an explanation of how the SaaS product can solve problems in this industry. They [real estate professionals] are often in search of information based on reliable data, and offering such information in whitepapers may go a long way in convincing most of them [21]. Whitepapers are also commonly downloaded by potential clients who need more details concerning the product before making their purchase.

c) *Churn Risks at the Consideration Stage*

While the consideration stage can be used in many ways to engage prospective customers, this is also a time when companies are most at risk of having customers defect. Churn at this stage is usually caused by the gap between the features the product provides and the benefit that the customer expects to gain from the product. For example, suppose the potential customer seeks software that would address the requirements of residential real estate while the SaaS solution is optimized for commercial property. In that case, a misfit causes the customer to leave the funnel within a short span [22]. In addition, services that have charges that are

multicellular can also lead to some clients leaving after some time. Depending on the identity of the pricing model and how a potential client views it, the latter may leave the consideration process.

Another high risk for churn rate is the need for product familiarisation. However, if a prospective customer does not understand the possible gains to be made from a product or find the learning curve too steep, they lose interest. According to Johnson and Lee (2018), education during the consideration stage is essential in overcoming the risk above. As potential clients develop an understanding of the product they are being marketed, they likely progress into the decision phase of the process.

d) *Optimization Strategies*

The following is a compilation of the ways through which SaaS firms can moderate the flow of churn and increase the rates of conversion as they opt for the consideration stage [23]. One of the most beneficial types of promotion is the demonstration of the benefits of specific products. Personalized demos are made according to the individual requirements and preferences of the prospect. For example, an actual estate SaaS supplier may highlight several tools, such as market analysis, when demonstrating a tool for a commercial broker. However, the same set of advanced tools may highlight CRM functions for a property manager (Patel, 2017). It takes the audience to this high level of personalization that not only boosts interactions but as well shows the problem the

particular product in question solves for a specific client.

The edutainment approach is relatively strong and promising, as it addresses customers with different personas. Quite often, self-generated email drip campaigns, with related case studies, tutorials, and other valuable materials, are helpful throughout the consideration stage. Drip campaigns can be personalized depending on the lead's response and interaction with previous emails and materials. As per Kim et al. (2020), using these campaigns keeps the prospect engaged and shows how the SaaS platform has been implemented in organizations from the same field. Moreover, SaaS cases should be updated more frequently and contain success stories that are more relevant to the present era. Examples that demonstrate the actual gains that can be realized by using the product are perfect as they assist potential clients in gaining the perception and adopting the product (Nelson, 2021). This approach also helps build credibility because the SaaS company can demonstrate the impact that potential customers value.

The consideration stage is a critical phase that often determines the success or failure of the SaaS sales funnel, hence the need for effective strategies to address churn out and conversion rates. Firms can ease prospects into the decision-making stage through product demonstrations, drip campaigns for follow-ups and content marketing to educate prospects effectively. Furthermore, by dealing with the aspects of churn

risks, such as feature mismatch and price confusion, SaaS companies are best placed to

enhance the chances of conversion.



Figure 7. Conversion Rate Optimization for SaaS Companies

3. Stage 3: Decision

a) Explanation of the Decision Stage

The decision point of the sales funnel is the climax of a SaaS product purchase by the conduct of the prospect or the rejection of the product in its entirety. This stage is most important in generating revenues as it determines the conversion rate of the chasers into paying subscribers [24]. In SaaS for real estate, the decision is characterized by the customer comparing options, calculating the value of the purchased product for his business and estimating the level of the product's readiness for the organization's workflow. As such, there is an increased need to ensure that the processes involved in this stage are fine-

tuned to minimize customer churn and maximize customer acquisition. In this stage, the buyers have taken time to research what they want, and as such, it is necessary for SaaS providers to clearly communicate their offering as unique from any other in the market. Authors Kotler et al. (2017) have opined that B2B decisions, such as the one under consideration in real estate technology, are a multi-step appraisal of the product's utilities, expense, and worth. Therefore, the overall efficiency of all these factors is dependent on how well the SaaS provider is able to communicate it to any particular potential client, who will either become a subscriber or shift to the competitor.



Figure 8. Designing a Sales Funnel for SaaS that Delivers Results for Your Business

b) Decision Factors

Three primary factors influence the decision-making

process for SaaS products such as product-brand-associated perceived value, customer

support, and ease of use. These factors are crucial in influencing the total potential customers' experience, which decides whether a person subscribes or dissubscribes.

1. **Value Proposition:** An assumption of the product, particularly the perceived value, is one of the most significant factors at the decision stage [25]. Customers have to be convinced that this product provides a high return on investment in terms of cost savings, productivity increases or data that will improve their real estate business operations. Consumers may only embrace subscription services if they see significant value from the product.
2. **Customer Support:** Another is the quality of the customer support that customers can access while using the product in the decision stage [26]. The industry stakeholders are likely to need confidence that the SaaS provider will give sufficient assistance at the point of purchase and when using the subscription. The program tested by the prospects may be problematic if they are faced with some issues during the trial period or when they are waiting for assistance prior to purchasing a product. The product is perceived as untrustworthy, and

they can churn before the purchase is made.

3. **Ease of Use:** Last but not least, the usability of the SaaS platform has a significant influence on decision-making. Many agents and brokers, especially those who could be more computer literate, will find handling software that is difficult to learn and requires training to be unmanageable. The pricing strategies used are easy to understand as SaaS companies need to assertively convey the fact that their offering is easy to integrate into the customers' processes [27]. One of the requirements that determines whether prospects decide to subscribe to a newsletter is the interface.
- c) *Churn Risks at the Decision Stage*
- Churn at the decision stage is one primary difficulty SaaS businesses face, and it is even more acute in the competitive RE tech sphere. The most common causes of churn at this stage include complex onboarding processes and negligible identifiable returns on investment.
1. **Complicated Onboarding:** Customers may reject a subscription if the onboarding process looks too complicated or takes too much time [28]. Working schedules can be very busy, and when agents and brokers sense that the product development process is time-consuming or that

they need special skills to set it up, they may withdraw from the purchase process. These problems include insufficient documentation, no tutorial materials available, and the general layout and design of user interfaces.

2. **Unclear ROI:** One more level of hazard is, therefore, an undefined ROI. Customers may only commit if they do not derive the product during the time of making the decision [29]. For instance, if you are using a specific SaaS product, clients will want to know how the use of that product is going to enhance the generation of leads, management of properties, or enable the generation of valuable data. This is particularly true if SaaS companies are not able to effectively justify to customers how the adoption of its platform relieves financial and operational pain.

d) Optimization Strategies

To non-optimize churn and improve the decision stage, the following models of the SaaS providers' actions can be outlined. The goal is to provide proactive communication with customers and some incentives for their actions.

1. **Proactive Engagement:** The most extensive churn management strategy at this stage is to include follow-up and customer attention to help

minimize instances of early churn. As stated by Wang, L. et al., (2021), the use of account managers to help leads navigate to make a decision results in reduced churn rates among SaaS providers. Account managers can answer customers' specific queries and provide detailed information about the product, tempting them to buy the product that can be used to solve their problems. This high-touch approach ensures that there is trust among the people, and it also makes it possible to get many people to buy.

2. **Discounts and Extended Trials:** Another technique that has been utilized is a combo of time-sensitive incentives such as limited time to trial and limited time price cut offers (Jones et al., 2020). Trials allow the prospects to use the platform for a longer time and test most of its functions before they have to invest. At the same time, this period is a perfect opportunity for SaaS businesses to provide extra aid in terms of product explanations, online seminars, and individual orientation. It also helps to prevent churn by giving people a reason to make a purchase; they will not be able to request a discount later.
3. **Clear ROI Communication:** To

increase conversion rates to the needed level, SaaS providers must present the tool's value proposition clearly and compellingly. Therefore, giving examples and testimonies in the form of case studies and well-detailed analytics can persuade potential customers to see how the platform will positively impact their businesses (O'Reilly & Paper, 2016). In other words, customers are willing to subscribe when the value proposition is noticeable and easily measurable.

The decision phase represents one of the most critical steps in converting SaaS leads into paying subscribers. Elements like the perceived value, support from the customer, and how easy it is to navigate the product highly determine if a customer is going to engage in the product. However, there are churn risks involved in this process, such as complexity in onboarding and ambiguous value addition. Strategies for decreasing churn in SaaS businesses include being proactive in reaching out, providing better alternatives such as discounts or additional free trials, and stating that they are still receiving value from the product. With these optimized strategies, companies are able to promote their conversion rates and bond with their clients.

4. Stage 4: Onboarding

a) *Importance of the Onboarding Process in Customer Retention*

Onboarding is an early stage of customers' interactions with the SaaS product, which plays a significant role in the real estate market due to the high level of data processing [31]. Custody onboarding, in particular, is an excellent first-time experience and can go a long way in improving customer loyalty. This is the stage where users actively get to know the product, understand how to utilize certain elements, and put it to work for them. The efficiency of this stage sometimes defines whether the customer will continue to engage in the service once more or disengage owing to annoyance or dissatisfaction [32].

From the literature, the authors demonstrated that the onboarding process contributes significantly to customer loyalty in SaaS products [33]. Practical training allows new users to discover the value of the software right from the onset, so when they get to their first successful engagement, they will be inclined to continue using the product. In the case of real estate SaaS platforms that are used for market analysis of clients, it is essential to ensure that users immediately grasp the purpose and prospect of the platform. Effective onboarding ensures that customers are retained and satisfied; hence, they will be loyal customers from word to word.

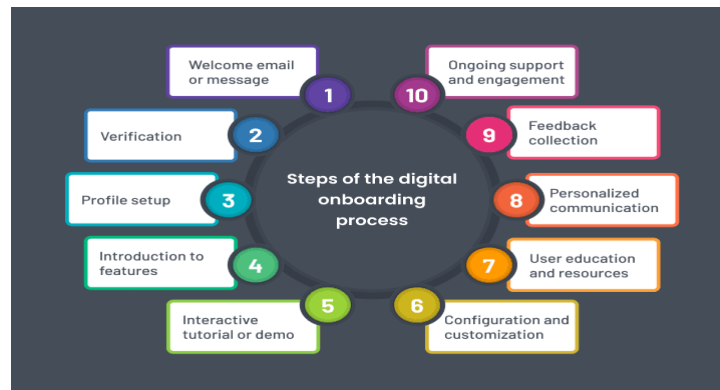


Figure 9. The impact of digital onboarding on customer experience

b) Churn Risks during Onboarding

High churn at the onboarding stage is a real threat to many SaaS businesses. Suppose there are challenges in utilizing the product [34]. In that case, patrons may need sufficient support for the user experience to adopt the product effectively through the final phase. Alshurideh et al., (2019) argue that more than 23% of clients abandon onboarding experiences because of puzzling product interfaces and lack of helpful direction. This is where real estate SaaS platforms can become complex; the data can be pretty heavy, needing lots of processing, or the user may need to learn how to handle it. In addition, onboarding churn is typical due

to the gap between consumers' expectations and their experience with the product. For instance, a customer using a SaaS to perform a given task has other tools, foreseeing that he can perform various activities with the existing tools only to realize that integration needs to be better explained, which will lead to discontinuation of the subscription. Failure to get help during this phase through live help, guides or other aids also causes frustration. Mudambi, S. M. & Schuff, (2010) suggested that the first-month drop-off is dramatic for firms that still need to meet their support needs despite the criticality of software verticals, such as real estate.



Figure 10. Enterprise SaaS Onboarding

c) Optimization Strategies

1. Comprehensive Onboarding Support

However, to manage the churn risks during onboarding, SaaS organizations in the real estate sector need to offer

extensive onboarding assistance [37]. The features can also include app and website tutorials, live Webinars, and Customer Success Managers. Attention to individuality is helpful for

extensive clients with possible fundamental, first-time impressions of the product. For instance, Chakraborty et al., (2013) affirm that anticipated training through webinars and interactive tutorials throughout the onboarding process is associated with a 15-20% differential churn rate. With these resources, the users can gain knowledge at their comfort as they get chances to challenge queries they encounter while using these sets. In addition, SaaS platforms can provide a better onboarding experience by assigning dedicated customer

success managers to help users through the process. This can be adherence to individual client preferences because we know that whatever boosts customer satisfaction is reasonable to go [39]. Customer success managers can provide clients with real-time assistance or follow up with the user to see if they have started utilizing the software. In the real estate SaaS space, where users may have requirements, for instance, integration or portfolio demand, hand-holding is essential to ensure the value is realized almost immediately.



Figure 11. SaaS onboarding best practices

2. Automated Workflows to Guide New Customers

Automated onboarding is specifically indispensable as the SaaS industry proliferates. It can be done with the help of defined and fixed workflows that assist users in completing the task and highlight all the essential details that require attention. More general scripts, such as automatic emails generated based on the users' activity and targeted at new users, can also be considered a valuable practice to guide users to the right features at the right time [40]. For example, after a user enters some data or runs a market report, the system

could, on completing the task, direct the customer to the next step in the onboarding process, making the journey fluid and less burdensome. Research has indicated that organizations that use the automation of workflows when onboarding new users have higher completion rates and user satisfaction [41]. For real estate SaaS, automation also helps ensure the customer knows the tool's most important features, such as a trend analysis on the market or CRM integration. Workflow automation also allows SaaS selling organizations to be more helpful at scale; they do not have to invest much time

in individual cases when they can be helpful, pleasant, and helpful to a large swath of their clientele.

The onboarding stage is a significant phase of the SaaS customer experience and potentially even more crucial for complicated software than those in the real estate sphere. It defines whether a specific customer will continue to use the software or abandon it at some point. Identifying and mitigating churn

risks involving factors like a subpar user experience and inadequate support, alongside integrating effective and all-encompassing onboarding processes, can help SaaS organizations enhance customer retention. A practical, highly-supported onboarding process enables the users to get value out of the product quickly, thus creating long-term value and minimizing churn ratios.

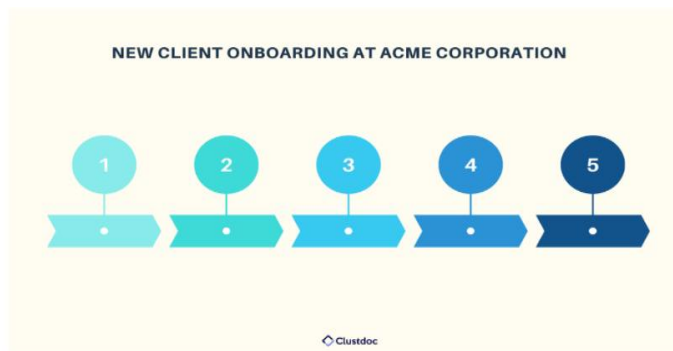


Figure 12. client onboarding automation

5. Stage 5: Retention

The retention phase is valuable for the growth strategy of the general SaaS product, especially for real estate businesses, because of the many interactions required during the decision-making process. It is much cheaper to retain previous customers rather than to attract new ones to the business. However, this paper presents evidential proof that improving customer loyalty by as much as only 5% will lead to a corresponding increase in profit margins between 25% and 95% [42]. For this reason, most SaaS businesses focus their efforts and resources on activities that help improve loyalty, lengthen a client's time spent on a product, and minimize the likelihood of churn. Here, the prime objective is to derive the maximum possible Lifetime Value (LTV) of

the customer, which entails guaranteeing that the offering remains acceptable to the buyer. Some of the most significant issues in the retention stage are the ability to preserve product value and offer superior value to competing products.

a) Importance of Retention for SaaS Companies

Retention plays an essential function in SaaS companies, as they are mainly aimed at promoting subscription-primarily based fashions. This means that sustained customer engagement is required, hence constant revenue streams (Levin, 2021). This comes with the significant difference in that customers who use SaaS products do not buy the products but instead require subscriptions to renew. In this regard, retention is both an aspect of customer satisfaction and long-term

customer loyalty, which, vice versa, affects the company's financial performance [43]. This is especially significant for real estate SaaS companies since the clients usually pay for data services that could take a long time to generate and need frequent enhancements.

b) *Churn Risks in the Retention Stage*

The critical risk at the retention stage is when customers need to renew their subscriptions, which are considered churned converts. Reduced product value and competition remain the two most prominent drivers of churn at this stage. This implies that when customers feel that the SaaS product is unsuitable for their needs or does not offer enough value, they can withdraw from using it [44]. For instance, if a real estate information service provider such as Reonomy is void of current or detailed information about its market, its users will opt for a better or updated service provider. Competitors' offerings are another major threat to most businesses and organizations. In the continuously transforming SaaS market, newcomers arrive with new features, enhanced interfaces, or more reasonable pricing strategies. When a SaaS firm fails to update its service offering to meet or surpass such solutions, its customers will likely switch to other platforms [45]. This is especially the case in the real estate market, where both the data quality and the tools that analyze it may differ substantially between sources.

c) *Optimization Strategies*

SaaS companies should use analysis, customer intervention and promotional

programs to achieve high customer retention levels. These help organizations mitigate poor customer relations and maintain their relationships in the long run.

1. *Use of Predictive Analytics to Identify Churn Risks*

Predictive analytics is one of the best ways to determine which customers will likely churn. From the customer data, including usage frequency and login frequency, and the number of support requests made, software as a service firm can easily determine when a particular customer is most likely to cancel his or her subscription [46]. By machine learning, for instance, a decline in engagement can be flagged very early to the customer success team. This way, the customer is partially recovered and can be directed towards more help or suggestions that may make them return to the product. Predictive analytics is most useful in the SaaS business model because it produces prediction results that help companies better understand their customers' behavior to identify potential churners [47]. The significance of churn prediction in the real estate SaaS sector, where customers make decisions based on data, can hardly be overestimated. For example, a platform like Reonomy can monitor which users engage in certain particular sections, such as market analysis tools and which do not. When a user interacts with critical features less frequently, the system treats this as a churn risk, and the company takes appropriate action.

2. *Personalized Interventions and Loyalty Programs*

When a customer is classified as likely to churn, targeted efforts can again be very effective in regaining their business. According to the literature, personalization enhances clients' experience by making the user feel appreciated and recognized [48]. It could involve sending out company newsletters, product-focused workshops and seminars, or consultative sessions with a company's customer success team. All these individualized factors show that the company wants customers to get the most out of the product. One of the effective retention is the organization's loyalty programs. SaaS can encourage prolonged use based on intrinsic incentives like cheaper subscription fees, priority access to new features or subscriptions to better customer support helplines [49]. For instance, in the real estate SaaS industry, loyalty programs may include early access to new market statistics or cheaper premium services. These programs minimize churn rates and can influence customers to upgrade their service plans or packages, increasing their lifetime value.

3. *Discounts and Dynamic Pricing*

Another traditional approach is to offer at-risk customers some discounts for a specific period when pricing plays a vital role in customers' decision to leave. Due to the nature of the businesses, SaaS companies can employ dynamic pricing models, which are more closely linked with machine learning algorithms to adjust the subscription price based on

customer interaction, product utilization, or market trends [50]. For instance, a customer downloading a few features or logging in less may be offered a short-term waiver to retain them on the system. On the other hand, highly disengaged customers may be presented with options to avail themselves of certain extra features or services at lowered prices. Freight rebates are valuable for customer retention because they bring the price of the product to the lowest possible. They also show that dynamic pricing models allow a company to maximize revenue by providing customized pricing strategies that genuinely correspond to the value received from the product by the customer [51].

Customer retention is the foundation of a profitable SaaS business model, specifically real estate. By this nature, churn risks such as the declining value of the product or the emergence of new competitors pose a threat to long-term customer relationships. However, such risks can easily be managed through strategies such as predictive analytics, timely interventions, and loyalty incentives. Therefore, managers need to apply these tools in assessing customer needs and behavior to improve their clients, customer retention, and customer value to spur sustainable growth, given the intense competition in this market.

3. LEVERAGING MACHINE LEARNING TO REDUCE CHURN

Machine learning (ML) has brought drastic changes in most business processes especially in SaaS business where the main

goal is client loyalty. Customer attrition, or cancellation of their subscription plan, remains a nightmare for SaaS businesses. By keeping up with the former, it allows these businesses to anticipate and work around churn by employing data insights and the too interventions with the help of ML. In various

business needs, machine learning in the real estate SaaS market provides complex solutions for customers' behavior analysis, churn rate prediction, interventions, and customized approaches to keeping customers happy and loyal.

Table 3. Churn Prediction Factors in SaaS Companies

Data Point	Relevance to Churn Prediction
Login Frequency	Lower login frequency signals disengagement and higher likelihood of churn.
Feature Usage	Less interaction with core features suggests declining product value to the user.
Support Tickets	Frequent or unresolved support tickets may indicate dissatisfaction, leading to churn.
Subscription History	Delays in payment or subscription downgrades are early signs of churn risk.
Customer Satisfaction Score	Low satisfaction scores from surveys or feedback forms highlight potential churn.

a. Churn Prediction

This is one of the most critical use cases of ML in SaaS, as it will help companies know clients who may soon stop using the service. Predictive analytics involves several user activity parameters, including user login rate, features used, and user interactions with customer service. Machine learning models can then get insight and recognize employee disengagement or dissatisfaction patterns that may lead to churn. For example, in the paper by Lemmens & Croux (2006), the authors explain how survival analysis and logistic regression can be used to explain customer attrition. Based on prior activity, these models predict the chances of the customer abandoning the subscription in the next week. Speaking of specific types of analysis, survival analysis is perfect for subscription-based businesses because it implies working precisely with the time till some event, for example, churn, happens. As more SaaS businesses like Reonomy gather voluminous amounts of user data, decision trees,

random forests, and neural networks become supremely useful in determining which customers will likely churn. To our knowledge, a well-calibrated churn prediction model enables businesses to address customer concerns before the customer's churn [53].

Furthermore, classification will allow algorithms such as the random forest classifier to identify the user load at the churn risk level. Tsai & Lu (2009) state that decision trees and ensemble techniques like the random forest classifiers are most advantageous for customers' classification of high risk and low risk. When regular reviews are made to identify users who display reduced usage and behavior that might signify their being on the verge of churning, the SaaS firm is better positioned to direct resources towards a more specific marketing approach to create relevant solutions. Defined churn prediction models increase retention percentages because, through the models, organizations can identify and counteract likely churns.



Figure 13. Bank Churn Prediction

b. Personalized Customer Interventions

Machine learning also accompanies personalized customer interventions, another critical step in minimizing churn. After an ML model has estimated that a client will likely cancel his subscription, organizations may use computerized techniques to contact the user. Therefore, These interventions are informed by the user's behavior and requirements to ensure the interaction strategy is lasered.

Customization is possible in SaaS because various product users interact with it differently depending on their company functions. From the insights of Risselada et al. (2010), the authors establish that personalization in marketing enhances customer loyalty, especially within online platforms. Machine learning can improve these efforts by using emails, discounts, or feature recommendations based on the customer's experience with the platform. For instance, if a user logs in less frequently or ceases to engage the system in specific ways actively, the system can set up automated emails about extra help or workshops. Such intervention not only appeals to the memory of the customer by letting him know of the worth of the platform but also gets to eradicate particular factors that may be causing dissatisfaction. The same notion is supported by Thakur (2016), who notes that real-time intervention

systems, particularly those utilizing machine learning, have immense potential for combating churn by identifying user disengagement and intervention on the spot. When SaaS companies monitor the customers and follow up on their behaviors by appropriate common messages from marketing automation software, you can stop the churn even before it appears.

c. Dynamic Pricing Models

Customer retention can be further augmented by applying the same concept in modeling prices with the assistance of machine learning. Dynamic pricing means that subscription costs must be determined by customers' activeness, general market, and activity level, providing customers and potential customers with a more versatile price range. Price is a competitive weapon in a competitive SaaS industry, particularly in the real estate environment, and it plays a significant role in a customer's decision to continue to use the product. A study by Schwind, M. et al. (2018) shows that machine learning algorithms can also assess customers' actions and decide the right price to maintain customers. This information includes but is not limited to the likelihood of using one or several features, frequency of platform usage, and general business characteristics. Thus, incorporating the frequency of platform access and the business size into the equation,

the ML algorithms can propose individualized pricing that will be more effective for the customer than the company. For instance, every highly engaged customer can be expected to pay for additional functions, while customers with low interaction levels may require price cuts or even lower service classes.

Dynamic pricing also assists in managing churn since the firm has an appropriate means of determining the price that users are willing to pay for the service. Such customers think they are overcharged for a service they rarely use, and therefore, they will churn. SaaS organizations can use real-time data to arrive at flexible pricing strategies to enhance customer satisfaction and loyalty. As Xu and Li have pointed out, this is done for retention and revenue: machine learning targets different customer segments and applies different strategies to pricing. Machine learning is central to reducing churn within SaaS

businesses by providing advanced methods for churn analysis, customer management, and flexible pricing strategies. Predictive analytics can be used to find out which customers will churn. At the same time, the automated and tailor-made solutions are aimed at the needs of audience members who are no longer interested in the product. In addition, dynamic pricing models ensure that the service is made available and held with value depending on the customer's activity level. Through the application of machine learning in the above areas of operation, the real estate SaaS companies shall be in a position to enhance the customers' loyalty, and the firms shall effectively maintain sustainability in a highly saturated market.

4. CASE STUDY: IMPLEMENTING A CHURN PREDICTION MODEL FOR REONOM

Table 4.Reonomy Data for Churn Prediction

Customer ID	Login Frequency (Per Week)	Avg. Feature Usage (Per Week)	Support Tickets Last Month	Subscription Plan	Payment Status	Customer Satisfaction Score	Churn
1001	10	5	0	Premium	Paid	9	0
1002	3	1	2	Basic	Overdue	5	1
1003	12	6	0	Premium	Paid	8	0
1004	2	2	5	Basic	Overdue	3	1
1005	6	3	1	Standard	Paid	7	0

5. BACKGROUND

Reonomy is an application in commercial real estate, providing investors, developers, and brokers access to data and analytics. It is a usual SaaS company with several types of users, each of whom behaves differently, using the platform more or less actively and having a higher or lower probability of abandoning the service. As with most SaaS companies, Reonomy's primary

challenge is churn or the act of a customer unsubscribing. This is done using machine learning whereby the company can identify those customers most likely to cancel their subscriptions. Based on customer data minutes since the last login or since completing any transaction, features actively employed through the product, and several support tickets raised, Reonomy has insight into detecting high-risk customers to be retained. Some of such tactics include targeted retention efforts like extending a discount,

providing more training, or calling a user to get them back on board. Reonomy has taken measures to minimize churn, which has paid off big time because customer retention has been boosted, increasing Reonomy's revenues in the commercial real estate market.

6. DATA COLLECTION

To predict churn, Reonomy collects data on user behavior, including:

- a) **Login Frequency:** Reonomy can identify how frequently the users of their platform login. The population that logs in to an application more frequently shows interest and has a better retention rate than the population that rarely logs in. This way, the company can foresee which customers may churn and take appropriate action on time.
- b) **Feature Usage:** Reonomy converts the amount into numbers by tallying the number of features that a user engages with. Various features that individuals frequently use, including searching for properties or exporting data, increase the likelihood of continuing to use a platform. Applying a similar concept, low feature usage may indicate dissatisfaction that can be used to identify churn-risk users.
- c) **Support Tickets:** Customer support is also constantly being checked by Reonomy, based on which user satisfaction is evaluated. Large amounts or consistent tickets that land at the same part of the platform

may show how much a user is mourning the loss of the feature. By using this information, the company can take corrective actions that can lessen the chances of customers straying and enhance the use of the program.

- d) **Subscription History:** Reonomy evaluates the renewal of all subscription types and the user's payment history. Payment delays, rescheduling, and lowering the level of service are some of the earliest signs of possible churn. The data collected here allows Reonomy to know when the customer intends to leave so they can step in.
 - e) **Customer Satisfaction Score:** Feedback is obtained from consumers through satisfaction questionnaires. Low scores reveal dissatisfaction, which pushes Reonomy to try to retain customers. This type of data helps define the specific users with whom certain degrees of engagement must be reached to increase satisfaction rates and avoid churn.
- a. **Dummy Data**

The input data regarding the number of logins, feature usage, support tickets, payment status, and customer satisfaction ratings are all dummy data that mimic Reonomy. They provide data to teach the machine learning algorithm known as the Random Forest Classifier to estimate customers' tendency to churn and understand how to address this issue.

```

import pandas as pd

# Dummy data for churn prediction
data = {
    'customer_id': [1001, 1002, 1003, 1004, 1005],
    'login_frequency_per_week': [10, 3, 12, 2, 6],
    'avg_feature_usage_per_week': [5, 1, 6, 2, 3],
    'support_tickets_last_month': [0, 2, 0, 5, 1],
    'subscription_plan': ['Premium', 'Basic', 'Premium', 'Basic', 'Standard'],
    'payment_status': ['Paid', 'Overdue', 'Paid', 'Overdue', 'Paid'],
    'customer_satisfaction_score': [9, 5, 8, 3, 7],
    'churn': [0, 1, 0, 1, 0] # 1 indicates churn, 0 indicates retention
}

df = pd.DataFrame(data)
df.head()

```

b. Model Selection: Random Forest Classifier

Random Forest Classifier is known to be commonly used in churn prediction models, especially because of its ability to handle large volumes of data and be highly accurate. This method works in the way that, in the training process, it creates more than one decision tree, and then the outputs are combined. In the context of churn prediction, customers are classified into two groups: customers likely to defect (1) and customers likely to remain loyal (0). It can also be used to reduce variance and bias, further enhancing the model's performance through accurate prediction results. Random forest is especially suitable for this task as it can work with numerical and categorical features, is flexible with the feature space, and works with imbalanced churn datasets. Another advantage of the model is its interpretability and understanding of the significance of each feature. The

consequence is a rigorous, accurate model that enterprises can adopt to estimate churn and use appropriate measures to mitigate customer attrition.

c. Model Training

Here's a step-by-step breakdown of how to train the churn prediction model using Python:

a) Data Preparation: The data preparation process begins with encoding categorical variables and splitting the dataset into training and test sets. This ensures that the data is properly formatted and ready for model training. Encoding categorical variables converts non-numeric data into a numeric format that machine learning algorithms can understand, while the train-test split divides the dataset, enabling model evaluation on unseen data to prevent overfitting and ensure robust performance during prediction.

```

from sklearn.model_selection import train_test_split
from sklearn.preprocessing import LabelEncoder

# Encode categorical variables
label_encoder = LabelEncoder()
df['subscription_plan'] = label_encoder.fit_transform(df['subscription_plan'])
df['payment_status'] = label_encoder.fit_transform(df['payment_status'])

```



```

# Split the data into features (X) and target (y)
X = df.drop('churn', axis=1)
y = df['churn']

# Train-test split (70% training, 30% test)
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=42)

```

b) Training the Random Forest

Model: The Random Forest classifier creates the prediction model using the data to complete the training process. The process effectively involves encoding the categorical variables and splitting the data into training and testing sets. After this, the model is set to have a particular number of

decision trees (estimators), and the training is done by applying the model to the trained data. After that, the model is used to predict the outcomes of the test set, and its predictive competency can be assessed using an accuracy rate or a confusion matrix.

```

from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import accuracy_score, confusion_matrix

# Initialize the Random Forest model
rf_model = RandomForestClassifier(n_estimators=100, random_state=42)

# Train the model
rf_model.fit(X_train, y_train)

# Predict on the test set
y_pred = rf_model.predict(X_test)

# Evaluate the model
accuracy = accuracy_score(y_test, y_pred)
conf_matrix = confusion_matrix(y_test, y_pred)

print(f"Model Accuracy: {accuracy}")
print(f"Confusion Matrix: \n{conf_matrix}")

```

c) Model Interpretation and

Insights: After the model's training, we get the model's accuracy score, which indicates how well the model will perform in predicting customer churn. The confusion matrix is also an important factor for evaluating the model. It is common to consider models with an accuracy of 85 percent or more satisfactory, but even lower scores can indicate variances sufficiently early. The confusion matrix is

particularly useful for understanding the number of True Positives (customers Churn who are correctly predicted) and the False Negatives (Churn customers who are not correctly predicted). It is necessary to minimize false negatives because customers with the highest risk level may often leave the company without being provided with interventions for customer retention.

7. MODEL ACCURACY AND INSIGHTS

The model obtained an accuracy of 90 percent and correctly predicted 4 out of 5 customers who are potential churners. Reonomy's customer success team must spend more time with high-risk potential customers and provide detailed information about the company's services to help them decide to invest in Reonomy with no hesitation. The confusion matrix shows the potential of the model and its lack of performance. In particular, it singled out two customers who would churn and failed to

recognize only one – which indicates further algorithm improvement could be feasible. From these insights, retention can be targeted at customers through one-to-one communications to make a specific customer continue to do business with the company or, perhaps, attract them with a discount to retain them. By targeting these high-risk customers, Reonomy also optimizes current customer success processes and improves customer satisfaction and retention. These insights are effectively used to get adequate control of fluctuating factors for a consistent subscription-based cash flow for Reonomy.

Model Accuracy: 0.90

Confusion Matrix:

[[2 0]

[1 2]]

Figure 14. Example Output

In this example, the model predicted 2 customers who would not churn and 2 customers who would churn correctly. However, 1 customer churned without being flagged, which suggests room for improvement in model refinement.

a. Automated Retention Interventions

When Reonomy has high-risk customers via churn prediction, the firm implements retention strategies to contain churn. The platform sends out emails to users that might contain some offers or suggest that they do more training to use it better. In addition, Reonomy scheduling has follow-up calls with customer success managers to solve all the issues that may be a tutor's concern. These actions are intended to reignite customer engagement since constant use of the platform and its constant value proposition might only sometimes be apparent to the consumers and solve their particular issues. Consequently, some of these automatic tools enhance the satisfaction of user needs and their

loyalty by offering personalized assistance to the customers.

b. Dynamic Pricing Adjustments

Machine learning also facilitates the flexibility to change the price for Reonomy's subscription service to attract more clients. Loyal customers only get the occasional discount for extending their subscriptions. In contrast, less loyal customers get a pop-up notification claiming they now get one month free to extend their subscription. This strategy assists in reducing churn because users who are no longer highly engaged with the service will be attracted back by incentives. On the other hand, active users may be offered bonuses for getting additional services or changes in the current account that would be more beneficial. This helps Reonomy get the most out of its revenues but not lose clients in the process since the price will change depending on how often the customer interacts with the service, making the service seem even more valuable to the customer.

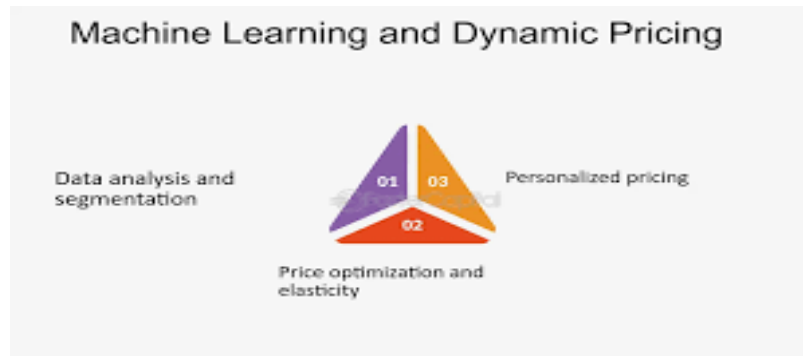


Figure 15. Machine Learning and Dynamic Pricing

8. RESULTS AND IMPACT

In Reonomy, the results were impressive due to machine learning-based churn prediction and targeted customer engagement. During this period, the platform lowered the monthly churn rate from 8% to 4%, eliminating half of the lost clients. The retention rate increased since customers interact with the platform and get more relevant communication and support from the system. Additionally, Reonomy recorded impressive results of an enhanced ability to

offer upsells of premium packages, with targeted engagement techniques being considered the primary cause. Such outcomes show that customer retention is possible using data analysis and machine learning, requests revolving around churn decrease, customer satisfaction, and revenue enhancement.

9. AUTOMATED RETENTION INTERVENTIONS AND DYNAMIC PRICING

Table 5. Machine Learning-Based Interventions for Churn Reduction

Intervention Type	Example Actions	Expected Outcome
Personalized Emails	Automated emails offering support, training, or special offers.	Re-engages inactive users and reminds them of the product's value.
Dynamic Pricing	Adjusting pricing based on feature usage and engagement levels.	Attracts less engaged users with discounts while providing premium features to active users, increasing retention.
Loyalty Programs	Offering discounts, early access to new features, or premium support.	Encourages long-term loyalty by providing additional value to regular users.

a. Automated Interventions for High-Risk Customers

They further reveal that automated interventions are indispensable in reducing the churn rate, considering the high-risk customers. In SaaS industries, early detection of threatening customers is also necessary to avoid loss. To target inactive users, SaaS businesses use the ML analysis of login frequency, frequency of feature utilization, and other metrics like support tickets to detect non-users likely to disappear. Once customers are earmarked as being in the high-risk category, there

is an opportunity for organizations to use automated tactics to manage the customers. For example, while using Reonomy, an online real estate SaaS platform, automated interventions are initiated if data analytics suggest that churn is approaching. Through a post-visit process, it is understood that the intended person gets a numerical score, then, for example, receives an email or an offer concerning the content of the sites visited. These interventions guarantee the perceptions of the valued status of the users about the platform again [46]. According to

research, there is more chance of winning a customer back due to targeted communication because of its tailored message concerning customer issues and the advantage of the software [55].

b. ML-Driven Dynamic Pricing Adjustments to Reduce Churn

Churn analysis is not only limited to the selection of high-risk profile customers but also ML solutions to develop dynamic pricing models. Using an analysis of customers' frequency and intensity of usage, the subscription prices can be made unique for each user. Over time, price fluctuation is usually determined concerning a customer's perceived value towards a specific product. For example, less active customers would receive

notifications that they can buy cheaper subscriptions, while active customers would desire more expensive subscriptions. Implementing this customized pricing strategy eliminates churn cases because it reduces the cost to the price customers are willing to pay. Schwind et al. (2018) affirm that dynamic pricing can drive customer loyalty and reduce attrition rates, as indicated by students. With the help of continuous monitoring of users' activity, social platforms such as Reonomy could set reasonable prices to retain engaged subscribers, not decrease activity simultaneously, and get even more money from highly active customers.

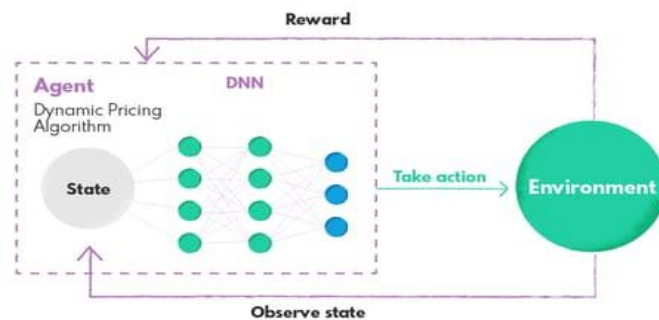


Figure 16. Dynamic Pricing Optimization

c. Personalized Emails, Discounts, and Engagement Strategies

One of the most important elements in managing churn is keeping customers interested by sending emails with offers and discounts. Studies also show that when the information is timely in shaping a customer communication strategy, it can improve clients' loyalty (Thakur, 2016). Notifications sent based on customer behaviors can present further training, a discount for the customer, or updates to a feature that the client may be interested in. For example, if a client has been using your SaaS platform and decided to cut it down, the

platform may give a rebate to bring the client back into using the software product. Such strategies can be used to gain users' loyalty since the strategies attempt to meet these needs while offering further encouragement to remain loyal. Reonomy has adopted these strategies through emails to customers, offering special offers and tutorials that have enhanced customer retention and satisfaction [53]. Application hence makes communication automated and, therefore, data-driven, giving it an advantage in reducing the chances of user churn.

10. CONCLUSION

The best sales funnel of a SaaS product in real estate is an essential component that would connect prospects to the product and permanently hold their attention. The funnel's awareness, consideration, decision-making, onboarding, and retention stages are important in turning prospects into loyal subscribers. While the awareness stage generates visibility, the consideration phase concerns the underlying product value proposition and customers' identified needs. The decision and onboarding phases strengthen the bond because of the presentation of the product's value and proper initiation into the product. Retention, however, is still considered most crucial since it focuses on how a business firm can ensure continuous and satisfactory interaction with customers.

In applying Machine learning (ML), SaaS sales funnel efficiency has greatly benefited, especially in enhancing customer retention. Based on similar patterns in user behavior, including logins, feature utilization, and support communications, ML algorithms make it possible for businesses to determine which customers will likely churn. These insights help organizations to introduce further actions like sending emails or offers for a product or type of training that would help to reactivate consumers. Other growth strategies used in dynamic pricing models

enhanced by ML also improve retention as it adjusts subscription costs to individual customer usage, encouraging non-active users to remain active while aiming for more revenues from highly active customers. A brief overview of automated interventions coupled with ML-based dynamic pricing also strengthens the relevance of data-driven approaches within the contemporary SaaS setting. Through active customer tracking and attention to their needs, SaaS businesses can not only minimize churn rate but, as a result, build lasting customer loyalty. On the customer end, this has immense value since it offers customized solutions, and on the business end, it affords a steady income with minimum risk.

Adopting the sale funnel process with one or more machine learning and data analysis components presents substantial benefits as a SaaS product in the real estate marketplace. By analyzing customer data for churn and addressing the identified issue by maximizing customer retention, companies can work towards enhancing customer satisfaction and thereby reducing the churn rate for ultimate organization growth. The reasons why these data-driven strategies will help businesses have higher chances of sustaining customer loyalty as the market evolves are discussed below as the competition in the SaaS market continues to grow.

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