



# Understanding Your Marketplace Technology Stack

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Marketplaces, classifieds properties, and portals. Regardless of what you call your platform, if you are enabling buyers and sellers to do business your company is a marketplace.

Marketplaces are unique in that they have unlimited growth potential since the platform operators don't have to worry about carrying inventory or managing service providers.

While marketplaces are attractive for the previously mentioned reasons, building a robust marketplace with low levels of churn, peak levels of liquidity, and high buyer/seller satisfaction levels, requires a proven technology stack.



*Although the typical marketplace technology stack involves dozens of components (at the least), we've found that the top 4 components you should be focusing on are:*

- › Shopping cart solutions
- › Payment systems
- › Engagement platforms
- › Recommendation engines

# SHOPPING CART AND PAYMENT SYSTEMS

Whether you're just getting started or have been running a marketplace for awhile, sales are the lifeblood of your platform. The last thing you want is to suddenly have your operations come to a halt because you hit a quota and can't afford to pay overage costs. In order to choose the right payment processor for your marketplace, you need to have an idea of your annual sales and see how they fit into the tiers provided by the payment processor you choose.



Considering how most commerce today is global, you would expect that shopping cart and payment systems would support multiple geographies, but that's not always true. Some payment gateways and shopping carts only support select currencies, and/or they don't always support regional tax collection.

*Be sure to ask your shopping cart and payment providers whether their solutions support multiple geographic regions—since you don't want your technology stack to hinder regional expansion efforts.*

Once you overcome the hurdle of pricing out the payment and shopping cart infrastructure for your marketplace, the next thing you should consider is the amount of time it will take to setup and configure the shopping cart integration with your marketplace platform. Unlike retailers where the buyer/seller journey is straightforward, marketplaces are complex and dynamic.

*In our experience, we've found that there's no one-size-fits-all approach to implementing shopping cart technology into a marketplace. That is why you need to consider the whole picture when evaluating carts for your marketplace.*



*Transaction fees, and geographic limitations aren't just the only gotchas you'll want to keep an eye out for when evaluating shopping cart and payment providers. You'll also want to keep an eye out for subscription hosting charges, setup costs, and fees associated with exporting and moving your data to alternative platforms.*



# SHOPPING CART AND PAYMENT SYSTEMS

## CONTINUED



Platform operators almost always have to put some effort into customizing their shopping carts to fit the needs of their buyers and sellers. *With that in mind, it's worth noting that prepackaged software might be cheaper up front, but those costs can skyrocket* after factoring in customization costs and the like.

Your shopping cart solution should also provide individual profiles on each of your buyers and sellers that contain purchase/sale history. This provides you—the marketplace operator—with a unique perspective of how your platform is being used, enabling you to optimize your operations with facts, rather than making guesstimates.

When evaluating shopping cart solutions, you should consider implementing a review system as part of your marketplace technology stack. Although rating systems are an optional component of marketplaces, implementing them can lead to increased transaction volumes, since rating systems

improve buyer/seller confidence in the marketplace.

The final notable component of choosing a shopping cart and payment solution for your marketplace is whether it complies with the regulations of the countries where your buyers and sellers are located.

For example, if you're looking to do business in the European Union, GDPR is a core consideration to keep in mind. Another regulation to consider is PCI compliance. This applies to any merchant that accepts most major credit cards.

**Review systems are essential components of shopping cart solutions because they improve trust and satisfaction within the marketplace.**



*It's important to consider current and future needs when evaluating shopping cart solutions. Purchasing a turnkey cart might initially be cheaper, but maintenance and customization costs can add up as your marketplace evolves.*



## ENGAGEMENT PLATFORMS

Given the competitive nature of the marketplace landscape, it's no longer enough for marketplace operators to simply build a platform and hope that users will transact on their own. Today, the most successful marketplace operators are ones that help their buyers and sellers through the journey with in-app push and email messages.



The first and most important element of any engagement strategy is the **intelligent use of data**. Marketplace operators need to ensure all their communications, from marketing to transactional notifications are optimized. This requires information to be processed in real-time, which brings us to the importance of choosing an engagement platform that is as agile as your marketplace.

Even if you're leveraging optimized message content within your marketplace, those pieces of content are worthless if they aren't sent in a timely manner. In fact, the correct timing of messages can make or break the experience for your buyers and sellers.

You'll want to ensure that communications are sent via the right channel for the individual buyer or seller. For example, some users might prefer receiving messages via email because they're often on their desktops at work. On the other hand, people who are often on the go, might prefer push notifications.

Measuring the effectiveness of your engagement platforms involves going beyond ensuring buyers and sellers return to and transact within your marketplace. It also involves taking a holistic approach to analysis and understanding how engagement affects your marketplace as a whole.

Once you have an understanding of how buyers and sellers engage with each other, you can focus on converting buyers to sellers and vice versa.

When a buyer experiences a simple purchasing flow, they're more likely to try selling their own goods and services on your platform.

Likewise, when a seller sees how easy it is for buyers to find the goods and services they need, the seller is likely to shop on the marketplace themselves.

**Optimize your message.  
The correct timing of messages  
can make or break the buyer  
and seller experience.**



*When developing your messaging campaigns, it's important to choose the right channel for communications. Some users will prefer push notifications, while others will prefer email.*



## RECOMMENDATION ENGINES

Recommendation engines are an essential component of running a marketplace as they enable buyers to discover products and services from sellers they normally wouldn't see. On the other side of things, these systems enable sellers to be matched with buyers that are a best fit for them.



As with the previously mentioned components of your marketplace technology stack, there's no single recipe for success. In particular, you'll want to find out how the engine will get the required information—specifically, is it through manual updates, or would it integrate with dynamic data sources?

Going back to costing out your marketplace technology stack, you can't just go with the lowest bidder. Data is the foundation of all recommendation engines, and as such, you can't just upload a file and expect the engine to work. How difficult the task is, depends on the provider you choose to work with.

*Consider this—manual data uploads might be cheaper on the surface, compared to dynamic integrations but that means you won't be able to process information in real-time, therefore degrading the user experience. In order to achieve peak performance, you need to leverage dynamic integrations.*

Regardless of how you manage your data, the information delivery is just as important as the recommendation itself. We're not just referring to visual aesthetics into your marketplace infrastructure is a given. Instead, the focus here is on choosing an intelligent engine that adjusts to the current state of your marketplace. For example, you don't want to frustrate buyers with suggestions for products that are out of stock.

The last point in this section is that you also should consider whether the platforms you're evaluating can scale with your marketplace. Many recommendation engines have caps on the amount of recommendations they can make per platform. Having low limits might be acceptable at first, but you should always have scalability in mind, since growth is key to running a successful marketplace.

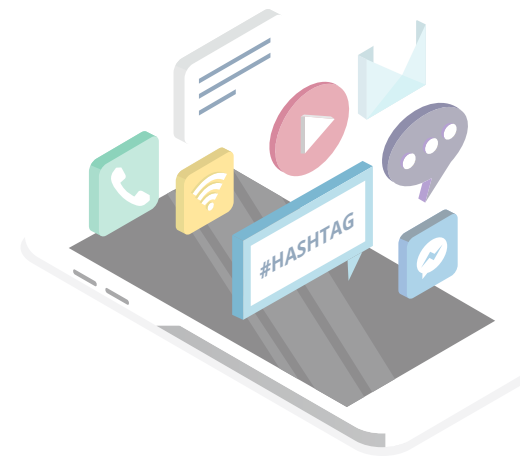


*Another red flag to keep an eye out for is choosing a recommendation engine that does not specify requirements of data formatting.*



## ELEVATING YOUR MARKETPLACE WITH PERSONALIZATION

Now that we've gone over the 3 primary components of the standard marketplace technology stack, let's discuss personalization, which when embraced, can give you a significant edge to stay ahead of the competition.



Marketplace operators who leverage the technique are able to improve liquidity, cut transaction times, reduce cart abandonment, and improve buyer search results. You won't necessarily find that software vendors advertise "personalization" as a feature.

It used to be enough for marketplace operators to send messages along the lines of **"Hello [First Name], we have a sale on [Product Category] today."** It got the job done, but without properly timing the message, the content was bound to fall through the cracks.

*Artificial intelligence makes it possible for marketplace operators to **test at least five variants of their messages at once** and proportionally distribute the content based on performance.*

In the past, personalization revolved around A/B testing. Marketplace operators that use A/B testing would take 10% of their buyer/seller lists, send them two different messages, and then the winning version would be used to reach the remaining 90% so it is really sampling.

Marketplace operators that embrace modern personalization solutions are able to treat their buyers and sellers as the individuals that they are. The foundation of this technique is recognizing the precise times when buyers/sellers are most likely to engage with notifications. While some individuals might prefer notifications in the mornings before work, others are going to prefer notifications in the evening, or during their lunch hours.



*Rather than simply blasting out version A to every buyer and seller, with modern personalization solutions, versions A to E would all be sent to the users based on what resonates best for them.*



# ELEVATING YOUR MARKETPLACE WITH PERSONALIZATION

## CONTINUED



For example, version A of a message might perform well with 25% of users, version B, would perform well for 10% of users, C performs well 15% of the time, and then versions D and E perform 20% and 5% respectively.

In the past, it would be difficult, if not impossible to tailor communications to be this granular, but when artificial intelligence is thrown into the mix, marketplace operators can have the personalization solution handle the heavy lifting. In fact, these optimizations work in real-time, since user preferences almost always change over time. As with message timing optimizations, artificial intelligence does the heavy lifting for marketplace operators. This means that artificial intelligence powered messaging solutions,

automatically recognize changing trends in message effectiveness. This is all done behind the scenes, without the marketplace operator having to manually upload batches of information.

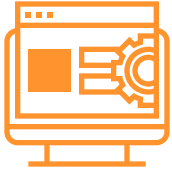
Ultimately, by choosing the right marketplace management solution, you can automate user engagement, optimize communication, and create queries/onboarding experiences without touching a line of code.



You don't need to be a developer to leverage artificial intelligence based personalization solutions. Quality personalization solutions enable marketplace operators to manage segments and campaign orchestrations without touching a line of code







## MAKING SENSE OF IT ALL

The marketplace landscape is extremely competitive, with new platforms popping up as every day goes by. Marketplace operators can't afford to have budget constraints and technical issues hinder their operations. Building a reliable marketplace technology stack requires platform operators to consider immediate and long-term objectives.

Think of it this way. Marketplaces are constantly evolving and a configuration that works for you today isn't going to meet your needs as time goes on.

For example, your shopping cart might not support the geographic regions your marketplace expands into, or you'll find that a mobile messaging platform doesn't hook into your stack after customizing different components.

Another point to keep in mind when building your marketplace technology stack is that you can't neglect the importance of recommendation engines. With recommendation engines, as is

the case with with the other components of your marketplace technology stack, you'll want to ensure the engine isn't just scalable, but that it also processes information in real-time.

The last thing you want happening on your marketplace, is buyers being recommended goods or services that are no longer offered.

Ultimately, there's no one-size-fits-all approach to incorporating different components into your marketplace technology stack. That's why when you're assembling components for your marketplace you need to take a holistic approach to evaluating components for your marketplace.



When assembling your marketplace technology stack, keep the following 4 points in mind:

1. *Make purchasing decisions based on long-term goals, rather than on upfront prices.*
2. *Choose technologies that enable you to process data and gather insights in real-time.*
3. *Base campaigns around the channels that work best for your buyers and sellers.*
4. *Implement a reputation system into your marketplace to increase trust and transaction volumes.*



## KAHUNA OFFERS A BETTER WAY

The promise of personalization is within reach for marketplaces of all sizes. The Kahuna platform offers sophisticated segmenting capabilities with send time and channel optimizations that ensure messages are delivered for optimal buyer and seller goal conversion. Content personalization is achieved with real-time A/E message variant testing and the result is the right message at the right time through the right channel to deliver on your business objectives.

### TALK WITH A MARKETPLACE SPECIALIST TODAY:

- › The Kahuna solution and examples that map to your company's use cases
- › Kahuna's AI-powered marketplace optimizations and how they help you with seller enablement, buyer marketing, and the new marketplace health metrics to drive the next stage of marketplace growth
- › How Kahuna optimizes for the marketplace metrics you care about: buyer/seller mix and activation rate, platform leakage, new listing growth rate, gross merchandise value (GMV) by channel, and more!

