

How to Achieve Synergy Effects in Digital Ecosystems

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The most of the World's highest valued companies in terms of market capitalization (by November 2024) are digital ecosystems, such as:

- Apple – Apple's market cap currently is exceeding \$3.4 trillion [1].
- Amazon -. Amazon's market cap currently floats around \$2.2 trillion [2].
- Alphabet (Google): Alphabet's market cap currently is over \$2.1 trillion [3].

Digital ecosystems are offering customers multiple services in an integrated platform, where these different services are interconnected in a seamless manner for the convenience of customers. Some digital ecosystems are purely digital (e.g. Alphabet/Google), while some integrate software and hardware solutions on one platform (e.g. Apple), while others integrate digital platform with logistical services to deliver goods to customers (e.g. Amazon).

However, there are some common factors that ensure successful operations of the digital ecosystems. These main factors for success are summarized below:

1. Customer Value – a digital ecosystem, like any successful business, should solve user problems effectively and should offer customers an added value in a competitive manner through its products or services.
2. Being Customer Centric – Enhancing the user experience is important by means of achieving a seamless integration of different services on one platform (convenience of use).
3. Network effects and Scalability – the above-listed two factors create a large (and loyal) customer base that enables a platform to expand partnerships in different sectors with an even greater number of merchants. A greater number of merchants (i.e. expanded reach) facilitates a further increase in the customer base and so forth, creating a so-called virtuous cycle effect.
4. Data Utilization – Large customer base and a large partner network allow a digital platform to accumulate and utilize the customer behavior data in order to offer users the personalized offerings, which will enhance the customer value even further.

To summarize the above-listed factors, the first and third ones represent **a business solution**, while the second and fourth factors represent **a technological solution**. The first prerequisite for creating a synergy effect in a digital ecosystem is exactly the requirement to align business solutions with technological solutions.

Such ecosystems tend to have a high potential for monetizing on synergies, due to combining multiple services into a single platform (hence active cross selling of different services) and due to the ability to generate the extra revenues from partner merchants (e.g. merchant fees from integrated services).

From the above-listed factors that are necessary for ensuring a successful operation of a digital ecosystem, the effectiveness of the last three factors depend directly on the ability of a digital ecosystem to generate synergy effects.

Synergy effects achieved in terms of Transactions, Scoring Data and Purpose of a Loan

More specifically, below we will take **BNPL/Loan Products as an example** and define how to achieve the degree of synergy with online BNPL/Loan Products in Different Sectors (Digital Platforms):

Being Customer Centric (Factor 2) – Being customer centric (in terms of achieving a seamless integration of different services on one platform) is not only about finding a technological problem/solution, but also it is about finding synergies in customer needs in different sectors.

For example, when people are entertaining, or socializing on social platforms or looking for information by using search engines, they do not need (and they do not have a purpose) to receive a loan for these purposes (i.e. for getting entertained, for socializing or for searching the desired information). In all these cases the synergy effects between these activities and receiving a loan are very low (Please refer to Table 1 below).

In the same way, when people are using digital platforms on a daily basis to receive taxi services, to order food online, to shop online for grocery products or medicines, they may need overdraft or credit card products, but not BNPL or consumer loans. Therefore, in these cases too, the synergy effects between these activities and receiving a loan are very low (Please refer to Table 1 below).

However, when people are making payments and are using loyalty programs as they shop (e.g. for purchasing consumer electronics products), or receiving a travel deals (for planning their trips or vacations), they may well need extra funds. Therefore, in these cases the synergy effects between these activities and receiving a loan are moderate or even high (Please refer to Table 1 below).

Finally, when people travel a lot they usually need travel loans, when they want to buy a car, the auto loan may help, when people are purchasing a house, the mortgage products are usually the solution for the problem and when people shop online on E-commerce platforms, BNPL loans may prove useful. Therefore, in all these cases there are high synergy effects between these activities and receiving a loan. All these points are summarized in Table 1 below:

Table 1

Defining the degree of synergy with online BNPL/Loan Products in Different Sectors				
Sector	Company Example	Transaction Purpose	Purpose of BNPL/Loan Product	Synergy with BNPL/Loans (Purpose of a Loan)
Entertainment services	Netflix	Entertainment	N/A	Very Low
Social Network	Meta	Socializing	N/A	Very Low
Search Engine	Google	Getting Information	N/A	Very Low
Taxi Services	Uber	Transportation	Overdraft	Low
Food Delivery	Glovo	Food	Overdraft	Low
Online Grocery	Sainsbury's	Food	Overdraft	Low
Online Pharmacy	CVS Health	Healthcare	Overdraft	Low
Payments	Apple Pay	Shopping	Consumer Loan	Moderate
Loyalty Platform	Payback	Shopping	Consumer Loan	Moderate
Shopping/Travel Deals	Groupon	Shopping/Travel	BNPL	High
Travel	Airbnb	Travel	Travel Loan	High
Online Car Sales Platform	MyAuto	Car Purchase	Car Loans	High
Online Housing Platform	MyHome	Own Real Estate	Mortgage	High
E-commerce	Amazon	Shopping	BNPL	High

Another way to discover the synergy effects between online BNPL/Loan Products and other services in Different Sectors, is to look at the revenue structure in each sector (i.e. number of transactions, frequency of transactions and average cheque size). As it can be seen from Table 2, the Entertainment Services, Social Networks and Search Engines have large number of customers, but as their mainstream services are free of charge for individuals, the transactional revenues from individuals are very low or even non-existent. It then follows that the synergy effects between these activities and receiving a loan are very low.

The digital platforms like booking taxi services online, ordering food online, shopping online for grocery products or medicines, have moderate number of customers and moderate/high frequency of purchases, but the average cheque size on these platforms is small. Therefore, the synergy effects between these services and receiving a loan by platform users is also small (Please refer to Table 2 below).

Payment and loyalty platforms, as well as the platforms for online deals, have a large number of customers and high frequency of transactions, however an average cheque size is moderate. Therefore, the synergy effects between these services and receiving an online loan by platform users is also moderate (Please refer to Table 2 below).

Finally, the online platforms for travel, buying cars or real estate, online shopping have moderate/large number of customers and a larger average cheque size. This generates high synergy effects between these services and receiving a loan by platform users, as the platform users often require loans for their purchases (due to a large cheque size). All these concepts are summarized in Table 2 below:

Table 2

Defining the degree of synergy with online BNPL/Loan Products in Different Sectors					
Sector	Company Example	Number of Customers	Frequency of Purchase	Average Cheque Size	Synergy with BNPL/Loans (Transactions)
Entertainment Services	Netflix	Large	Low	Small	Very Low
Social Network	Meta	Large	N/A	N/A	Very Low
Search Engine	Google	Large	N/A	N/A	Very Low
Taxi Services	Uber	Moderate	Moderate	Small	Low
Food Delivery	Glovo	Moderate	Moderate	Small	Low
Online Grocery	Sainsbury's	Moderate	High	Small	Low
Online Pharmacy	CVS Health	Moderate	Moderate	Small	Low
Payments	Apple Pay	Large	High	Moderate	Moderate
Loyalty Platform	Payback	Large	High	Moderate	Moderate
Shopping/Travel Deals	Groupon	Large	High	Moderate	Moderate
Travel	Airbnb	Large	Moderate	Moderate	High
Online Car Sales Platform	MyAuto	Moderate	Low	Large	High
Online Housing Platform	MyHome	Moderate	Low	Large	High
E-commerce	Amazon	Large	High	Moderate	High

Network effects and Scalability (Factor 3) – In order to achieve network effects, it is important to keep in mind the concepts defined above when selecting partners in different sectors. Selecting proper sectors/partners in each sector will enable a digital platform to expand their reach and to increase the customer base even faster.

Data Utilization (Factor 4) – Origination process of BNPL/Loan products require a comprehensive customer behavior data for making informed decisions based on customer scoring. Therefore, the synergy effects are achieved in those digital ecosystems, which generate enough customer behavior data for credit scoring.

As can be seen from Table 3 below the Entertainment Services, Social Networks and Search Engines generate very limited data on the purchasing power of customers that can be used for scoring purposes. Therefore, the synergy effects between these platforms and an online BNPL platform is rather limited.

The rest of the digital platforms have moderate data about purchasing behavior of customers except payment/loyalty platforms, which possess comprehensive cross-sectoral data of customer behavior. This data is generated on a regular basis across the different sectors of retailing. Thus, it would provide a good basis for scoring the credit worthiness of individual customers and for making personalized offerings to them. Therefore, payment/loyalty platforms will offer good synergy with online BNPL/Loan platforms (Please refer to Table 3 below).

Table 3

Defining the degree of synergy with online BNPL/Loan Products in Different Sectors			
Sector	Company Example	Transactional Data for Scoring	Synergy with BNPL/Loans (Scoring Data)
Entertainment Services	Netflix	Small	Low
Social Network	Meta	Small	Low
Search Engine	Google	Small	Low
Taxi Services	Uber	Moderate	Moderate
Food Delivery	Glovo	Moderate	Moderate
Online Grocery	Sainsbury's	Moderate	Moderate
Online Pharmacy	CVS Health	Moderate	Moderate
Payments	Apple Pay	large	High
Loyalty Platform	Payback	large	High
Shopping/Travel Deals	Groupon	Moderate	Moderate
Travel	Airbnb	Moderate	Moderate
Online Car Sales Platform	MyAuto	Moderate	Moderate
Online Housing Platform	MyHome	Moderate	Moderate
E-commerce	Amazon	Moderate	Moderate

The different synergy effects are summarized in Table 4 below in order to provide an overall synergy effects between the various digital platforms and an online BNPL/Loan platform.

Table 4

Defining the degree of synergy with online BNPL/Loan Products in Different Sectors					
Sector	Company Example	Synergy with BNPL/Loans (Transactions)	Synergy with BNPL/Loans (Scoring Data)	Synergy with BNPL/Loans (Purpose of a Loan)	Overall Degree of Synergy with BNPL/Loans
Entertainment Services	Netflix	Very Low	Low	Very Low	Very Low
Social Network	Meta	Very Low	Low	Very Low	Very Low
Search Engine	Google	Very Low	Low	Very Low	Very Low
Taxi Services	Uber	Low	Moderate	Low	Low
Food Delivery	Glovo	Low	Moderate	Low	Low
Online Grocery	Sainsbury's	Low	Moderate	Low	Low
Online Pharmacy	CVS Health	Low	Moderate	Low	Low
Payments	Apple Pay	Moderate	High	Moderate	Moderate
Loyalty Platform	Payback	Moderate	High	Moderate	Moderate
Shopping/Travel Deals	Groupon	Moderate	Moderate	High	Moderate
Travel	Airbnb	High	Moderate	High	High
Online Car Sales Platform	MyAuto	High	Moderate	High	High
Online Housing Platform	MyHome	High	Moderate	High	High
E-commerce	Amazon	High	Moderate	High	High

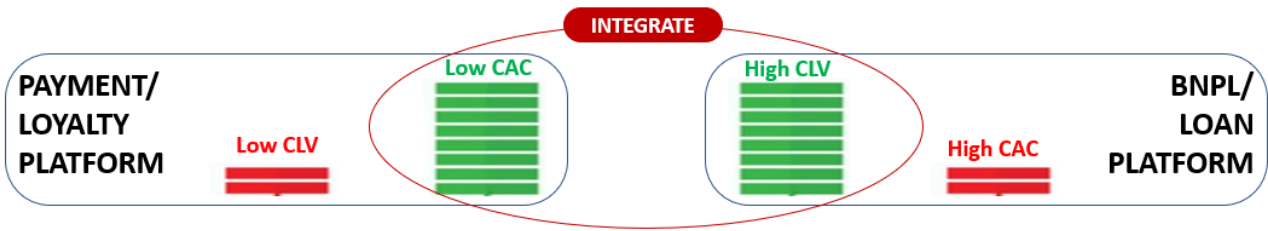
To summarize the findings of Table 4, it appears that the digital platforms such as Entertainment Services, Social Networks and Search Engines provide very low synergy effects with online BNPL/Loan platforms. The digital platforms offering Taxi Services, Food Delivery, Online Grocery and Online Pharmacy, have limited synergy effects with online BNPL/Loan platforms. Meanwhile, Payment/Loyalty Platforms and the platforms that offer Shopping/Travel Deals to customers, provide moderate synergy effects with online BNPL/Loan Platforms. On the other hand, the online platforms offering E-commerce services, selling cars or real estate, and providing booking services for travel, provide high synergy effects with online BNPL/Loan Platforms.

Synergy effects achieved in terms of low CAC and High CLV

Still another perspective to look at synergy effects between the various digital platforms is to assess the synergy effects derived from combining the platforms with low Customer Acquisition Cost (CAC) and those with high Customer Lifetime Value (CLV).

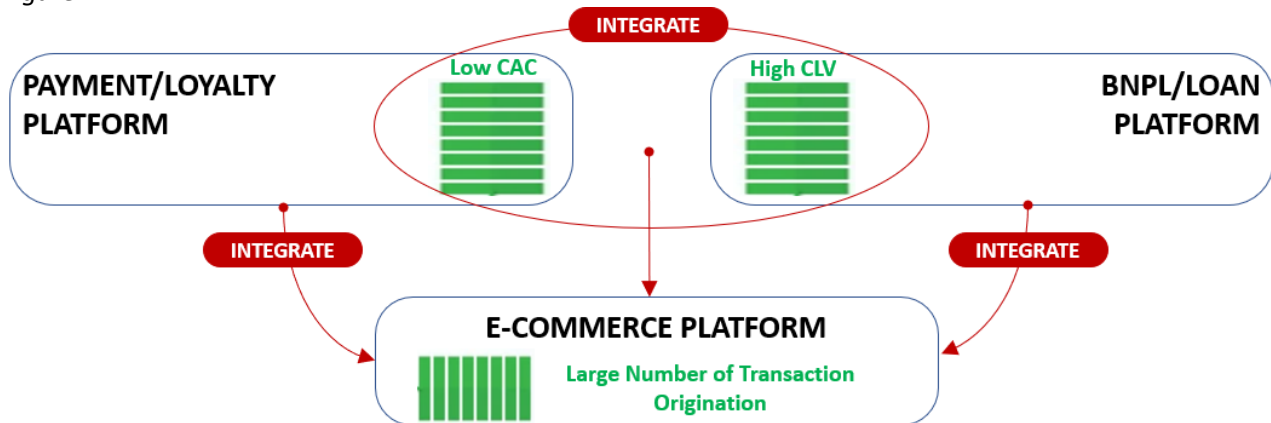
BNPL/Loan products have high CLV, because the medium to long term revenue generation potential, however the CAC in this sector is large because of high degree of competition between banks and microfinance institutions. At the same time, if we look at Payment/Loyalty Platforms, they have low CAC due to partnerships with merchants, but low CLV due to small margins. Therefore, it will be logical to integrate Payment/Loyalty Platform and BNPL services into a single platform to utilize the benefits of Low CAC and high CLV of both platforms, as shown in Figure 1 below:

Figure 1



However, as it can be seen from Table 4, Payment/Loyalty Platforms have a high degree of synergy with BNPL Platform in terms of scoring data but have a moderate degree of synergy in terms of transactions and purpose of a loan. Therefore, we have to find other services that have a higher degree of synergy with BNPL and integrate them into the above digital ecosystem in order to make it more successful. From the list in Table 4 we can see that E-commerce services matches well with BNPL as these platforms between them have higher degree of synergy in terms of transactions and purpose of a loan. Such digital ecosystem would display the largest synergy effects and is shown in Figure 2 below:

Figure 2



The similar conclusions were made by the author in the previous works, when analyzing the trends in the banking sector and citing Kaspi Bank JSC (Kazakhstan) as an example [4], [5].

Summary

The research shows that the world's leading BNPL platforms are employing a business model that closely resembles the one described in Figure 2 given above. Namely, the world's leading BNPL services provider Klarna is partnering with 450,000 merchants across 45 countries worldwide and its shopping app includes a loyalty program (under the brand name of Vibe) [6]. Another major BNPL services provider "Splitit has forged partnerships with major payment networks like Visa and Mastercard and integrates with e-commerce platforms such as Shopify and WooCommerce" (Louis Thompsett, August 28, 2024, [6]). Amazon integrated Amazon Prime loyalty program, Amazon Pay, its e-commerce marketplace into one platform and integrated the services of BNPL providers like Affirm [7]. Affirm, a leading BNPL platform in the USA, is using the opportunity window arisen by Apple's closure of Apple Pay Later Service, to join Apple Wallet, which combines payment options, loyalty program and e-commerce in a unified ecosystem. By this move, "Affirm's merchant acceptance will grow in number from about 290,000 to about 10 million" (Inderpreet Batra et al., BCG White Paper: Apple in Payments,

September 2024, [8]). PayPal Combines loyalty integrations with PayPal's payment system, BNPL options like PayPal Pay in 4 and e-commerce through its merchant partnerships into PayPal App [9].

In the banking sector, a prominent example of a highly successful ecosystem is Kaspi.az, which includes Payments (P2P, Bills, Mobile Commerce), Loyalty Program, E-commerce (Marketplace, Shopping Club) and Fintech (Consumer Financing, BNPL) [10].

To summarize, these ecosystems leverage synergies between integrated services by providing seamless customer experiences, using data to personalize offerings and prioritizing convenience. Such value-added services and user experience based on convenience, allow to capture and retain customers effectively.

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