INDUSTRY DISPUTE RATIOS

A deep dive into key dispute metrics including ratios, dollars lost and reasons codes.

Executive Summary

This white paper is dedicated to inform merchants of the potential loses they may experience in chargebacks. Based on aggregated data from the Federal Reserve Bank of Kansas City, Chargeback has analyzed the different chargeback and merchant loss valuations that occurred from the following five U.S. industries: department, grocery, petroleum, restaurant and travel.

Along with providing some context on the growth of each industry, this paper primarily focuses on revealing how the type of transaction (e.g., card-present vs. eCommerce) and a given reason code category (e.g., Fraud) can negatively impact merchants' bottom line, along with other factors such as chargeback ratios and merchant loss rates.

This study compared four the largest card networks accordingly by card schemes: Visa and MasterCard (four-party schemes) and American Express and Discover (three-party schemes). The results showed fraud-related chargebacks to be the most common reason code category all merchants can experience, and card-present (CP) transactions develop higher chargeback and merchant loss values from Visa and MasterCard. American Express and Discover predominantly developed higher values from card-not-present (CNP) and eCommerce transactions.

But the reason code category appeared to have the deciding factor on whether revenue loss from a chargeback was either possible or inevitable. For example, the merchant loss rates from the travel industry would show inevitable revenue loss from Visa and MasterCard transactions affiliated to fraud- (4.02), quality- (1.92) and authorization-related chargebacks (3.16). The chargeback rates from the department industry showed possible revenue loss from fraud- (0.39), cancel- (0.09) and no receipt information-related chargebacks (0.08) despite earning more severe merchant rate losses.

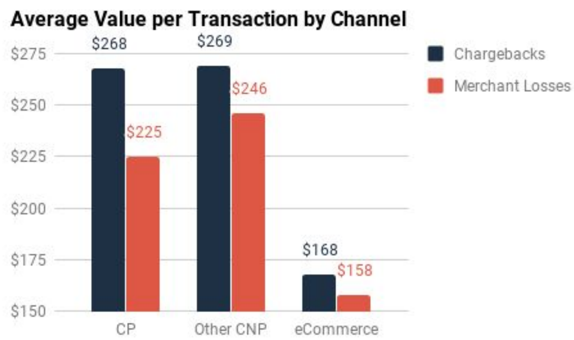
The recommendations for the presented challenges require a chargeback management software that is flexible and up-to-date to merchants' businesses and the rules established by the card networks. The Chargeback App will help merchants' internal teams to prevent revenue loss while preserving their relationships with customers.

All Merchants

Average Value per Transaction by Channel

Visa and MasterCard transactions seem to have developed relatively similar chargeback values from CP and CNP transactions. But merchants can expect CNP chargebacks to lead towards more revenue loss ($246 per transaction).

Surprisingly, eCommerce transactions developed the lowest chargeback value; and its value is only 37.55% lower than its CNP counterpart.

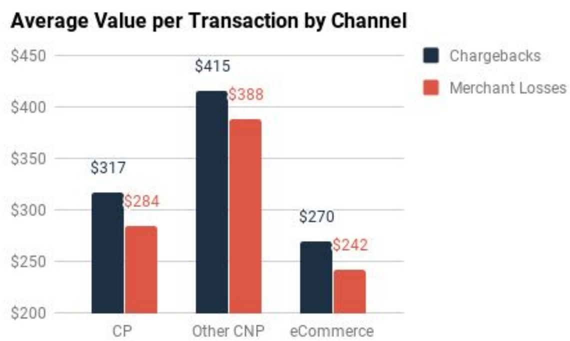


Visa and MasterCard

American Express and Discover transactions tend to develop more costly chargebacks from CNP transactions while CP transactions developed chargeback values that were, on average, 23.61% lower than CNP chargebacks. Its respective merchant loss shows all merchants losing $284 for every transaction from American Express and Discover cardholders. That is 26.8% lower than merchants would lose from CNP transactions.

If one was to compare the average values from CNP transactions in both Visa and MasterCard, and American Express and Discover, CNP chargebacks from American Express and Discover have a 35.18% margin over Visa and MasterCard.

There is no clear explanation why CNP transactions produce the more costly chargebacks through American Express and Discover cardholders.



American Express and Discover

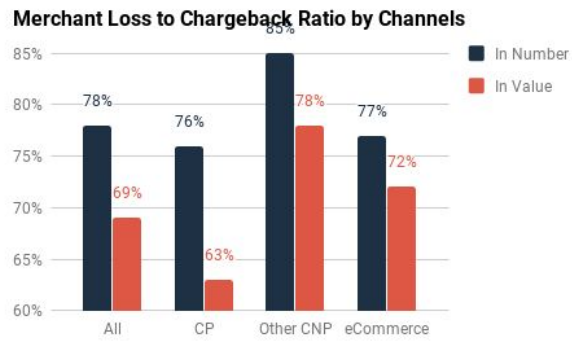
One possibility is that American Express and Discover cards are more often used for CNP transactions above all others. This study will examine this further within each merchant industry.

Merchant Loss to Chargeback Ratios by Channel

Disputes that are filed by American Express and Discover cardholders are more likely to initiate chargebacks.

The chargeback ratio across all transactions is 91%. And its respective merchant loss ratio is 84%.

While merchant loss is not guaranteed, it is probable nonetheless, respectively to American Express and Discover cardholders.



Visa and MasterCard

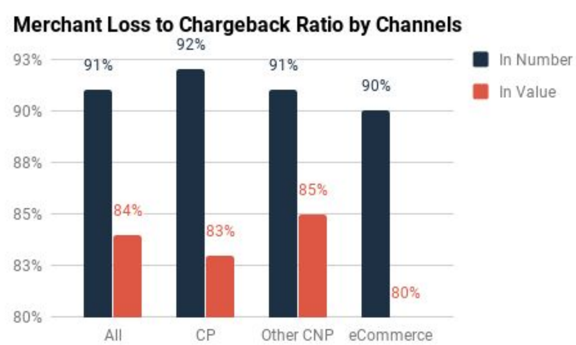
The highest chargeback ratio from American Express and Discover transactions came from CP transactions (92%), which was only 1% higher than its CNP counterpart.

For Visa and MasterCard transactions, chargebacks were likely to occur from CNP transactions (85%) more often than any other transaction.

"While merchant loss is not guaranteed, it is probable nonetheless, respectively to American Express and Discover cardholders"

But its respective merchant loss ratio (78%) shows merchants potentially not being affected by the valuated merchant loss value as shown in the previous section—or at least not as often as merchants may expect.

But merchants should take precaution from losing revenue from Visa and MasterCard transactions, especially because its merchant ratio across all transactions is 69%.

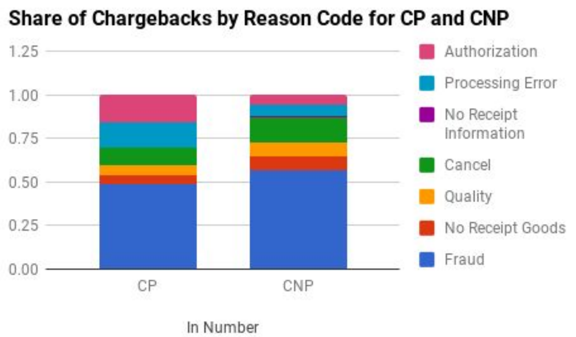


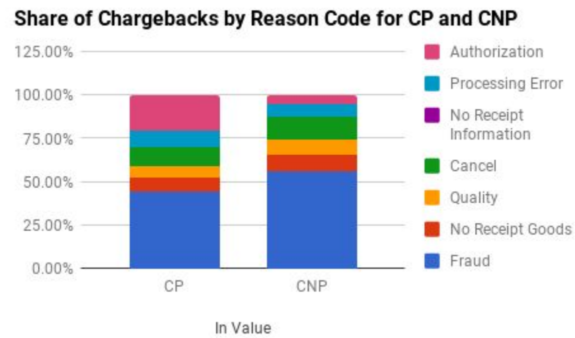
American Express and Discover

Visa and MasterCard: Share of Chargebacks by Reason Code

Visa and MasterCard transactions developed chargebacks mostly from Fraud reason codes in both CP (48.6%) and CNP transactions (56.9%). We should expect merchants in this study to experience fraud-related chargebacks.

But there may be variation between each merchant industry. With regards to the number of chargebacks, CNP transactions outnumbered CP transactions in five out of seven reason code categories: Fraud, No Receipt Goods, Quality, Cancel and No Receipt Information.





This should not be surprising, given that CNP transactions are more vulnerable to these types of chargebacks. This can range from fraudsters being more crafty to commit fraud within a CNP environment to cardholders being able to easily file a CNP dispute to their issuing bank. Fraud reason codes also represented the most value being developed from CP and CNP transactions (44.4% and 55.8%, respectively).

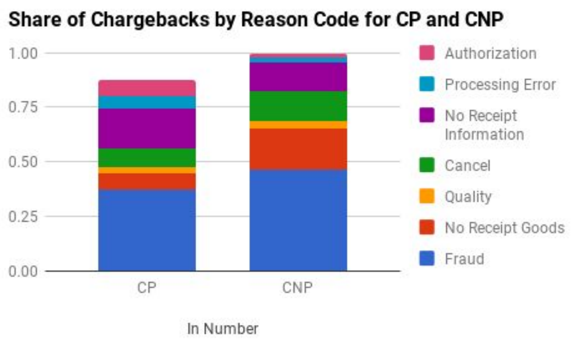
And Authorization reason codes obtained more value in chargebacks despite having a representation of 4.7% lower when it comes to the actual number of chargebacks. In other words, authorization-related chargebacks are more costly despite having a smaller population in this study.

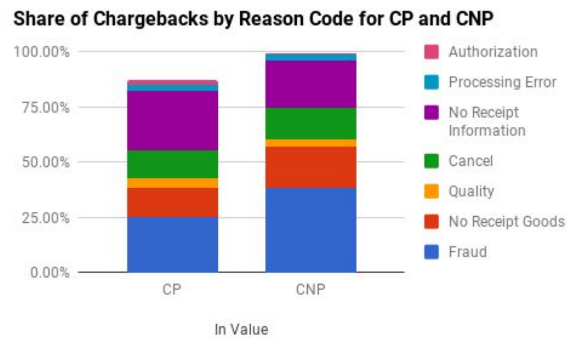
The only other change worth noticing comes from Processing Error reason codes. With regards to the number of chargebacks, Processing Error reason codes obtained 14.4% of the CP chargeback share. But its value only obtained 9.5% of that same share. This shows processing error-related chargebacks developing less costly than, for example, fraud- and authorization-related chargebacks despite having a larger population in the number of chargebacks received.

American Express and Discover: Share of Chargebacks by Reason Code

Fraud reason codes also held a majority population from American Express and Discover transactions (37% of CP chargebacks; 46.6% of CNP chargebacks). But the number of no receipt information-related chargebacks represented 18.5% of CP chargebacks. That is approximately 99.46% larger than the number of CP chargeback that occurred from Visa and

MasterCard transactions. Merchants from all industries need to be more prompt in providing receipt information to American Express and Discover cardholders.





Furthermore, chargebacks affiliated to No Receipt Goods reason codes represented 18.7% of the CNP chargebacks, which is 58.82% larger than the same chargebacks being initiated by Visa and MasterCard transactions.

Merchants in this study tend to experience more chargebacks that suggest there was no fulfillment, or a partial fulfillment, of goods being delivered to the cardholder.

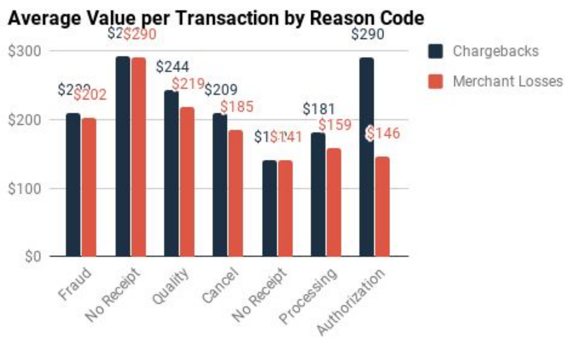
"Merchants from all industries need to be more prompt in providing receipt information to American Express and Discover cardholders"

Or merchants may not be providing the necessary information to show when and where a transaction was made.

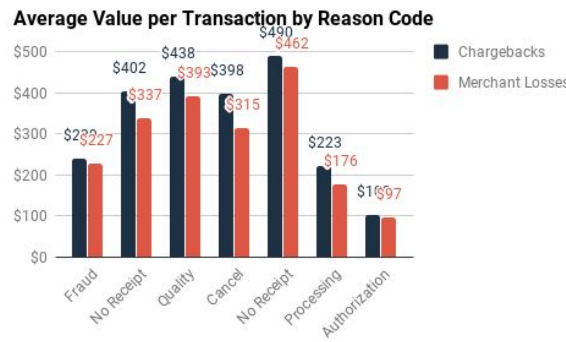
It is worth noting that no receipt information-related chargebacks developed the most value in CP transactions (26.80%), respective to American Express and Discover transactions. Chargebacks that were initiated by Fraud reason codes represented 25.3% of the CP chargeback share.

But when it comes to the CNP chargeback share, Fraud reason codes obtained the largest population (38.3%) while No Receipt Information codes earned 21.1%. Its effect on each type of transaction will vary, depending each merchant industry below.

Average Value per Transaction by Reason Code



Visa and MasterCard



American Express and Discover

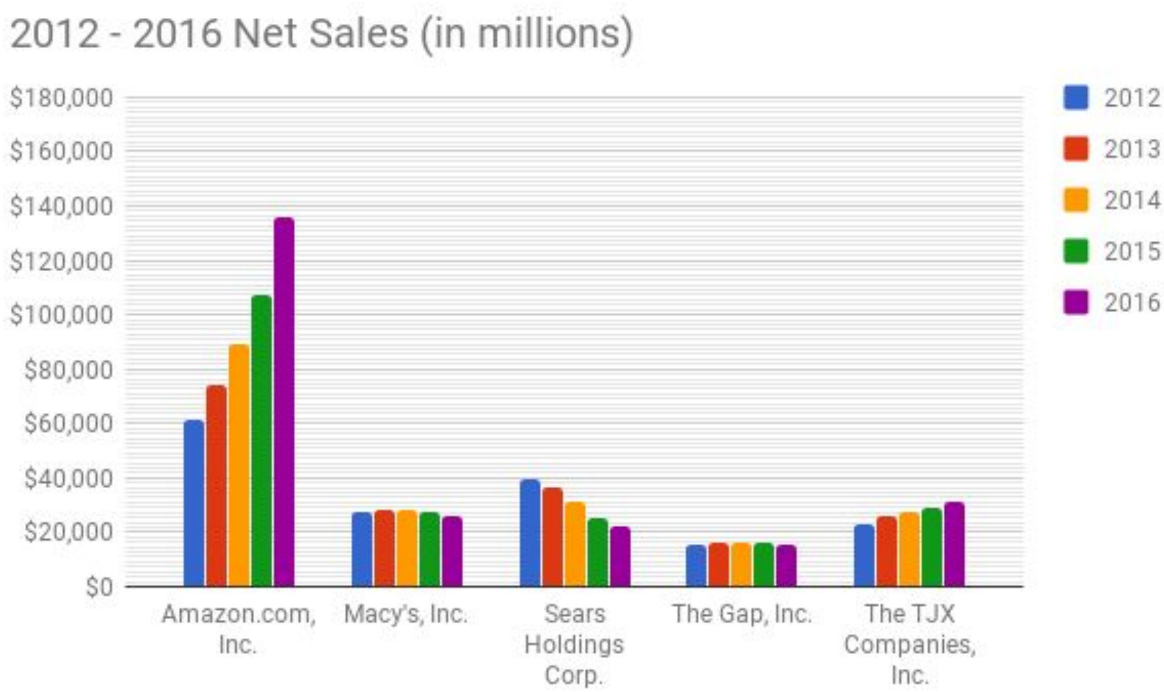
No Receipt Goods and Authorization reason codes developed the largest chargeback values from Visa and MasterCard transactions. On average, each no receipt good-related chargeback was valued at $292 per transaction and each authorization-related chargeback was valued, on average, at $290 per transaction.

The $290 valuation explains how Authorization reason codes earned a larger percentage in chargeback value from CP transactions. However, it appears that the chargeback value won't match the value of its respective merchant loss. Merchants can potentially lose $146 in revenue for every transaction that is responsible for an authorization-related chargeback. While it can still affect merchants' bottom line, that is 49.66% lower than its respective chargeback value.

For American Express and Discover, No Receipt Information, Quality and No Receipt Goods reason codes developed the largest chargeback value. On average, a no receipt information-related chargeback was valued for $490 per transaction. This reason code category in particular will more often originate from CP transactions, given that more value has been found in this chargeback share.

Department Industry

At A Glance



Sources from annual reports and Deloitte's Global Powers of Retailing 2017

Nowadays, no one can look at the U.S. department industry without looking at the growth of non-stores—most noticeably Amazon.com. The e-retail juggernaut had its net sales grow an average of 22.18% from 2012 to 2016. It 2016 net sales was almost $136 billion, which resulted in a 27.08% growth from its net sales in 2015 ($107 billion). While comparing Amazon.com's growth to four of the top U.S. department stores[1], it shows Amazon.com had earned at least a 77.24% margin over its competitors in 2016.

The only department store that showed growth within a five-year period was The TJX Companies, Inc., an apparel company well-known for brands such as T.J. Maxx and Marshalls. Net sales from Macy's, Inc. and The Gap, Inc. appeared to be relatively dormant between 2012 and 2014, and then gradually decreased between 2014 and 2016[2]. Sears Holdings Corporation was the only department store that experience a consistent decline in

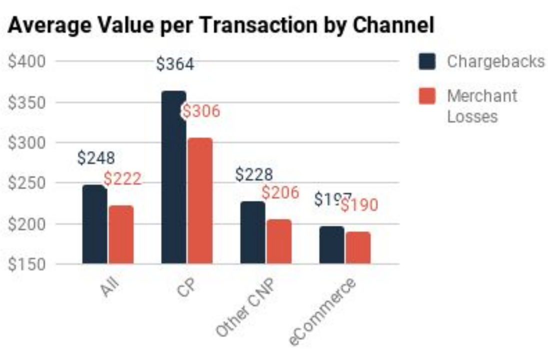
[1]See Deloitte's *Global Powers of Retailing 2017: The art and science of customers*.
[2]Net sales from Macy's decreased by 3.65% between 2014 and 2015, and then by 4.80% between 2015 and 2016. Net sales from The Gap decreased by 3.88% and 1.78% respectively during the same periods.

net sales. In 2012, Sears earned around $39.9 billion in net sales and around $22.1 billion in 2016—that is a 44.45% decline within a five-year period.

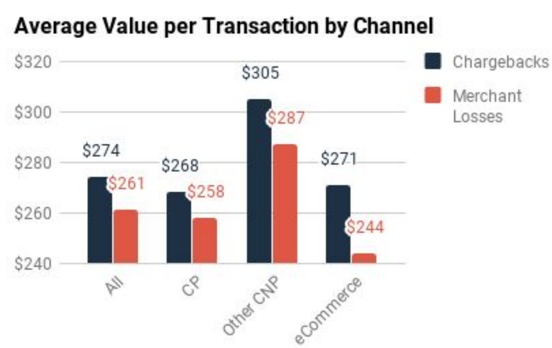
There are two important factors that aspiring merchants must be aware of before entering this industry. One, as mentioned by Deloitte's *Global Powers of Retailing 2017*, is that department merchants must prepare to serve on-demand shopping, whether it is in the form of 'one-tap' checkouts or efficient delivery service.

The other factor is that the shopping experience, both online and offline, needs to be considered high-quality from the mindset of consumers. This requires niche marketing that is experiential and adaptive to your target market. And as you develop and reiterate your business model, it is important to know the likelihood, and confirmed risks, of losing revenue related to chargebacks. The information below puts this industry into perspective.

Average Value per Transaction by Channel



Visa and MasterCard



American Express and Discover

From the observation alone, chargebacks are more valuable from CP transactions that were performed by Visa and MasterCard ($364 per transaction). American Express and Discover transactions seem to have generated more valuable chargebacks from CNP transactions ($305 per transaction).

The CNP chargeback valuation falls in a similar path that all merchants shared respective to American Express and Discover transactions. And when it comes to merchant loss, department merchants could have expected to lose, on average, $306 for every CP transaction made by Visa and MasterCard cardholders. That shows them losing about 84.07% in revenue that is represented by its respective chargeback value.

However, while still focusing on Visa and MasterCard, CNP transactions only developed average chargeback values of $228 per transaction, which was 37.36% lower than the valuation developed by CP transactions. And its respective merchant loss represents about

90.35% of that value ($206 per transaction). Department merchants can expect CP transactions from Visa and MasterCard to produce more severe revenue loss.

Improvement on customer service can reduce the possibility of losing $206 per transaction. And for CNP transactions, make sure to find exactly what reason codes are developing these chargebacks, so that you may know what actions to take online. Fortunately, we also have valuations from reason codes further below.

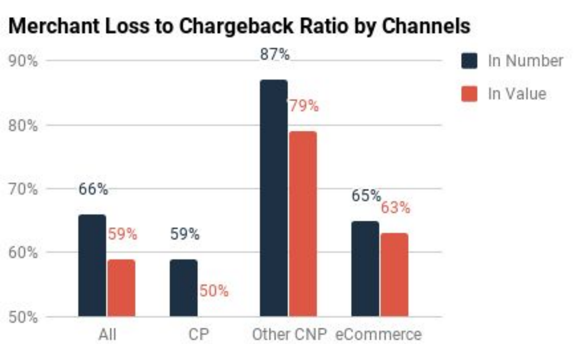
"Department merchants could have lost $306 for every CP transaction made by Visa and MasterCard cardholders. That shows them losing about 84.07% in revenue that is represented by its chargeback value"

American Express and Discover transactions developed costly chargeback values from CNP transactions ($305 per transaction).

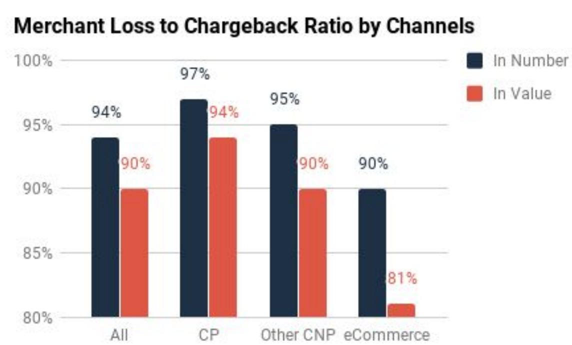
And department merchants could have lost, on average, $287 for every CNP transaction made by American Express and Discover cardholders.

eCommerce transactions developed chargeback values that were 11.15% lower than its CNP counterpart. And with CNP transactions earning a 12.13% margin over CP transactions, department merchants who accept American Express and Discover can expect chargebacks to develop more problems if not properly managed.

Merchant Loss to Chargeback Ratios by Channel



Visa and MasterCard

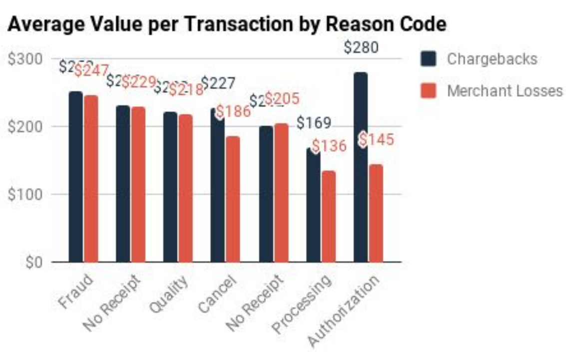


American Express and Discover

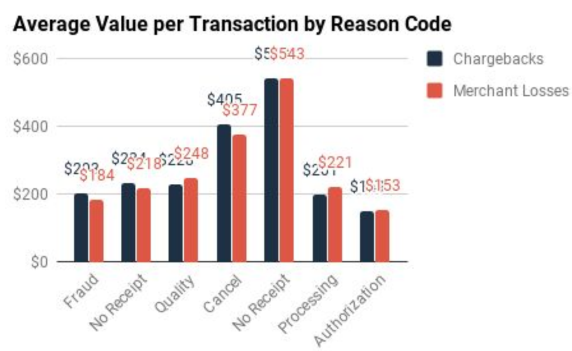
While CP transactions produced more valuable chargebacks from Visa and MasterCard transactions, its chargeback ratio (59%) shows that such chargebacks may not occurred as much as one would think. However, department merchants could expect chargebacks to occur from CNP transactions (87% chargeback ratio); and its respective merchant loss valuation will occur more often than not (79% merchant loss ratio). To a lesser degree, eCommerce transactions are 22% less likely to produce a chargeback when compared to its CNP counterpart.

Regardless of the type of transaction, American Express and Discover transactions have a strong likelihood to produce a chargeback. The chargeback ratio is 94% across all transactions. But when it comes to revenue loss, the merchant loss ratio from eCommerce transactions (81%) shows department merchants having a lesser likelihood to receive this outcome. However, this ratio is still too high to prevent its inevitable occurrence.

Average Value per Transaction by Reason Code



Visa and MasterCard



American Express and Discover

Across all reason codes, American Express and Discover transactions developed a higher average in chargeback value ($280 per transaction), relative to Visa and MasterCard transactions ($226 per transaction). But its 19.29% margin over Visa and MasterCard primarily originates from No Receipt Information ($543 per transaction) and Cancel reason codes ($405 per transaction).

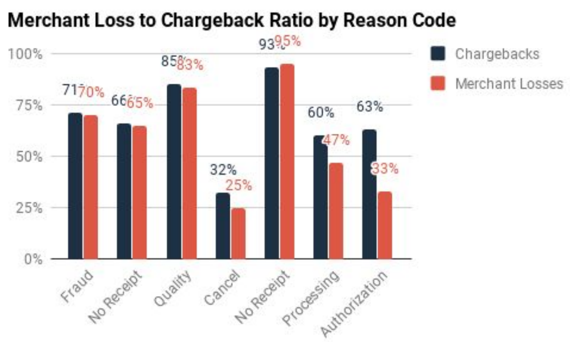
And on top of that, department merchants could expect to receive an average revenue loss of $543 per transaction for every no receipt information-related chargebacks—a 100% match of its respective chargeback value.

It is worth noting that the merchant loss value from processing error-, quality- and authorization-related chargebacks have estimated margins that range from 2.61% to 9.05%. In other words, department merchants could have potentially lost around $4 to $20 more on average, per transaction, than what its respective chargeback was valued.

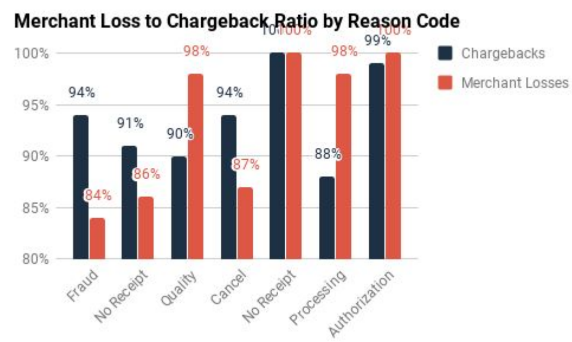
While Visa and MasterCard transactions developed merchant losses that relatively match its chargeback value, there is a stark gap between the values developed by Authorization reason codes. On average, and respectively to Authorization reason codes, chargebacks were valued at $280 per transaction and merchant losses were $145 per transaction.

While this shows department merchants lost $135 less in revenue than what the chargebacks were valued, the valuation from this reason code category shows a similar characteristic that all merchants share (i.e., more representation in value from the chargeback shares).

Merchant Loss to Chargeback Ratio by Reason Code



Visa and MasterCard



American Express and Discover

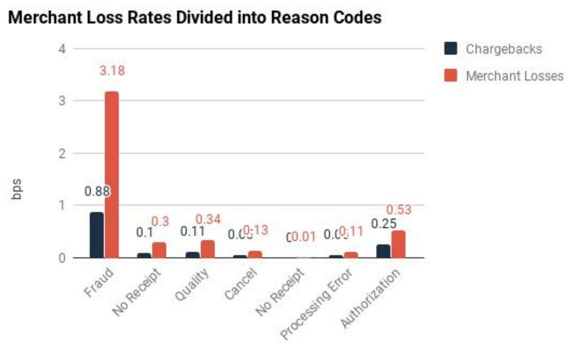
The likelihood of a chargeback to occur is more probable from American Express and Discover transactions. This falls in a similar path, where it was mentioned previously these card networks had a stronger likelihood to produce a chargeback across all transactions. Be aware that chargebacks and its respective merchant loss will occur from reason codes affiliated to No Receipt Information and Authorization.

It is interesting to see how the merchant loss ratio is at least 8 points higher than its respective chargeback ratio from two reason code categories: Quality and Processing Error. In other words, while a chargeback was most likely occur from these two reason codes, it was even more probable that department merchants experienced a merchant loss valuation as shown in the previous section.

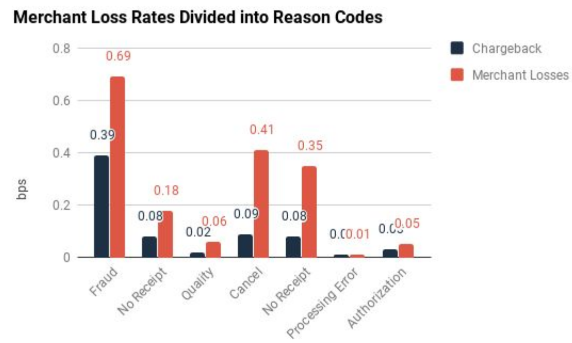
Visa and MasterCard transactions seemed to produce a mixture of weak and strong likelihoods of chargeback occurrence. On the extreme end, chargebacks were most likely occurring from No Receipt Information reason codes (93%) and Quality reason codes to a lesser degree (85%). On the other end, Cancel reason codes are less likely to produce chargebacks, given that it has a chargeback ratio of 32%.

The only scenario where merchant losses have a substantial, weaker likelihood of occurring respectively after a chargeback comes from Cancel, Processing Error and Authorization reason codes. Each merchant loss ratio was between 7% and 13% lower than its respective chargeback ratio.

Merchant Loss Rates Divided into Reason Codes



Visa and MasterCard



American Express and Discover

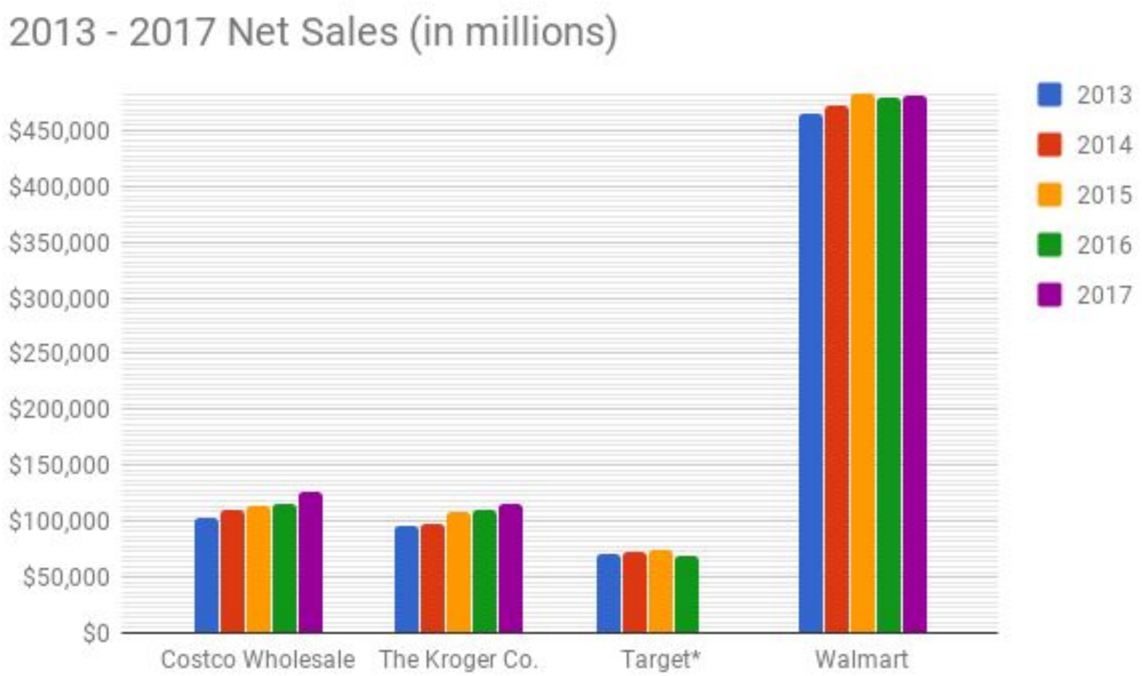
The merchant loss rates from both schemes reveal how much risk department merchant experience from a given card network. Fraud reason codes pose the largest risk across all networks. And it is far more severe from Visa and MasterCard transactions (3.16), given that its merchant loss rate is more than four times higher than its relative rate from American Express and Discover transactions (0.69).

It seems that American Express and Discover transactions pose far less risk in producing the initial chargeback (0.39). But when it is produced, department merchants can expect revenue loss caused by fraud chargebacks.

Other reason code categories that pose some risk in revenue loss are Authorization (0.53), Quality (0.34) and No Receipt Goods, respectively to Visa and MasterCard transactions. American Express and Discover transactions also pose some risk of revenue loss from Cancel (0.41), No Receipt Information (0.35) and No Receipt Goods (0.18). However, each of its respective chargeback rates are below 0.1, which shows department merchants doing a great job preventing these types of chargebacks.

Grocery Industry

At A Glance



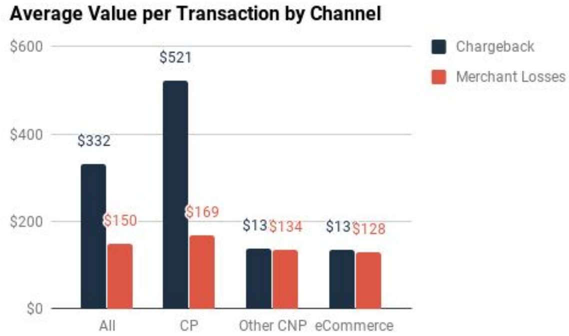
Sources from annual reports. Target's 2017 annual report was not available prior to publication.

Non-stores may pose a growing challenge to the grocery industry. But supermarket Walmart continues to reign supreme. In 2017, Walmart's net sales was around $481.3 billion, which resulted in a 3.37% growth from its net sales in 2013 ($465.6 billion). Costco Wholesale earned consistent growth from 2013 to 2017, along with the Cincinnati-based company, Kroger. Target earned an average net sale of $71.7 billion while receiving a decline of 5.81% between 2015 and 2016.

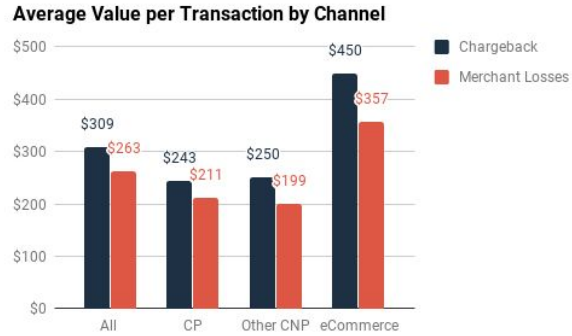
If the grocery industry is your industry, you need to have a fool-proof and pervasive method in retaining customers. Costco, for example, relies on a membership program that lets its customers exclusively purchase goods in wholesale. Its services also expand beyond groceries such as gas services, which is something Walmart offers along with its discount prices. Kroger, while maintaining its own independent stores, is also a supplier for regional and and national brands in the United States.

For grocery merchants in their developing stages, it is recommended start with the Target route, where the company offers a loyalty program (e.g., REDcard) that rewards customers for recurring purchases. And you develop a method that works for you, here is what you need to know about chargebacks within the grocery industry.

Average Value per Transaction by Channel



Visa and MasterCard



American Express and Discover

Grocery merchants experienced different chargeback valuations when compared to department merchants.

Among Visa and MasterCard, grocery merchants faced more valuable chargebacks from CP transactions ($521 per transaction), which had at least a 73.51% margin over CNP and eCommerce transactions.

"Grocery merchants can expect American Express and Discover transactions to develop more valuable chargebacks within the eCommerce landscape"

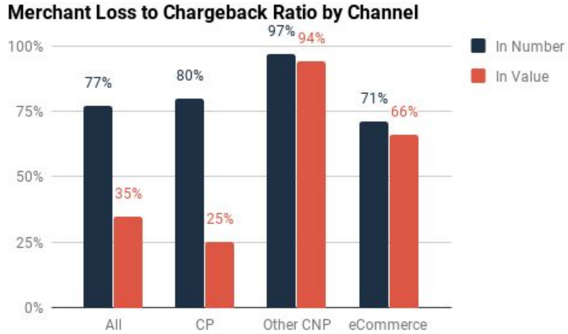
Merchant loss from CP transactions, which developed an average $169 per transaction, had at least a 20.71% margin over what grocery merchants expected to lose from CNP and eCommerce transactions.

It seems the high chargeback valuation from CP transactions show Visa and MasterCard being used more frequently in-store. How much risk is at play will require further interpretation below.

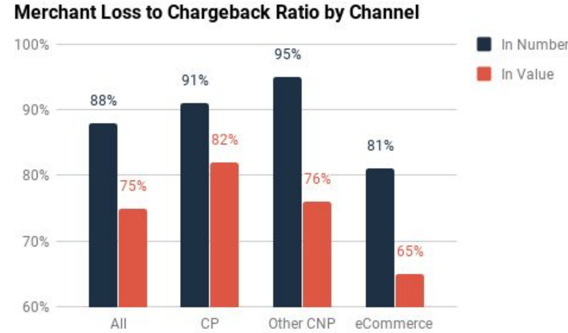
American Express and Discover transactions developed more valuable chargebacks from eCommerce transactions ($450 per transaction). Its valuation shows eCommerce transactions received at least a 44.4% margin over its CNP and CP counterparts. If frequent use causes higher valuation, as suggested previously with Visa and MasterCard, then grocery merchants can expect American Express and Discover transactions to develop more valuable chargebacks within the eCommerce landscape (e.g., a grocery checkout online).

But keep in mind CP and CNP transactions still developed chargebacks from CP and CNP transactions, both of which differ only, on average, by $7 per transaction.

Merchant Loss to Chargeback Ratio by Channel



Visa and MasterCard



American Express and Discover

Across all transactions, American Express and Discover had a stronger likelihood to produce chargebacks (88% chargeback ratio). But while a chargeback will occur more often than not from these network, there seems to be a positive trend in merchant loss toward eCommerce. In other words, the merchant loss ratio decreases as the transaction becomes digitized.

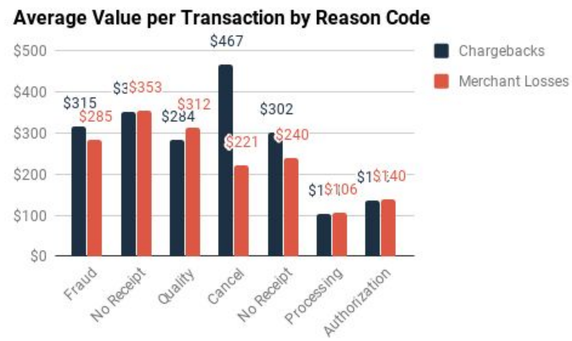
The merchant loss ratio from eCommerce transactions is 17 points lower than its CP counterpart. However, even with the merchant loss valuation being more probable from CP transactions, the merchant loss ratio across all transactions was 75%. Digital transactions will not inevitably protect grocery merchants from revenue loss caused by chargebacks.

Visa and MasterCard transactions seemed to produce a strong likelihood of chargebacks (97%) and merchant loss (94%) from CNP transactions above all other transactions. The main interest in this section comes from the chargeback and merchant loss ratios produced by CP transactions, where there is a 55-point margin over the latter.

It seems grocery merchants were not inevitably losing revenue from CP chargebacks despite being more likely to receive one in the first place. One explanation for this could stem from CP disputes being resolved more easily in-person than so within a non-present environment (e.g., chat services online). Grocery merchants should acknowledge the importance of customer service when handling any transaction, regardless if was processed in-person or online.

Average Value per Transaction by Reason Code

Visa and MasterCard



American Express and Discover

Above all reason code categories, Authorization reason codes produced the largest chargeback value ($1,442 per transaction), respectively to Visa and MasterCard transactions. But while this valuation is above average from all other reason code categories[3], its respective merchant loss shows grocery merchants possibly losing, on average, $126 per transaction. That is about 8.7% of what its respective chargeback was valued.

Among the rest of the reason code categories, each chargeback and merchant loss value relatively matched one another. The only exceptions come from Cancel and Processing Error reason codes, where each chargeback value had a 17.53% and 18.51% margin, respectively, over its affiliated merchant loss value.

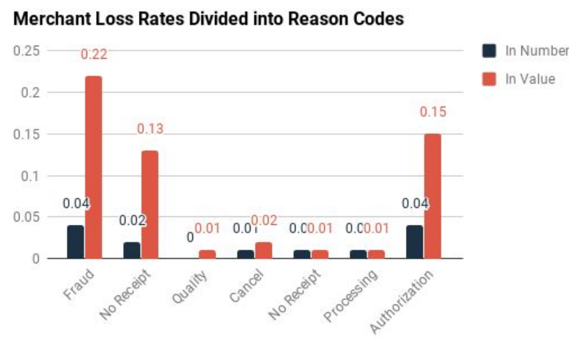
Since American Express and Discover transactions produced high chargeback and merchant loss values from eCommerce transactions, it may explain why Cancel reason codes are valuable as well. eCommerce transactions allow recurring billing, so it is plausible for chargebacks to be more valuable whenever an American Express or Discover cardholder files a dispute related to cancellation.

But grocery merchants ended up losing, on average, $221 per transaction for every canceled-related chargeback. It is worth noticing that the valuation from eCommerce transaction clearly had an affect on, in particular, fraud-, no receipt goods-, quality- and no receipt information-related chargebacks.

[3]The average chargeback value across all reason code categories was $325 per transaction, respectively to Visa and MasterCard transactions.

Merchant Loss to Chargeback Rates by Reason Code

Visa and MasterCard



American Express and Discover

Similar to department merchants, grocery merchants received more risk of revenue loss from Fraud reason code categories. But fraud from Visa and MasterCard transactions posed a higher risk (0.71) than it did from American Express and Discover transactions (0.22).

However, both of its chargeback rates are moderately low, showing that grocery merchants did a decent job in preventing fraud-related chargebacks. In fact, grocery merchants seemed to perform well in preventing chargebacks across all reason code categories, regardless of the card network.

Specifically to Visa and MasterCard transactions, the only categories that posed some risk of merchant loss were Quality (0.22) and Processing Error reason codes (0.11).

Visa and MasterCard appeared to have put more liability on grocery merchants for the quality of the product/service and the efficiency of the merchant's processing capabilities.

"Fraud from Visa and MasterCard transactions posed a higher risk (0.71) than it did from American Express and Discover transactions (0.22)"

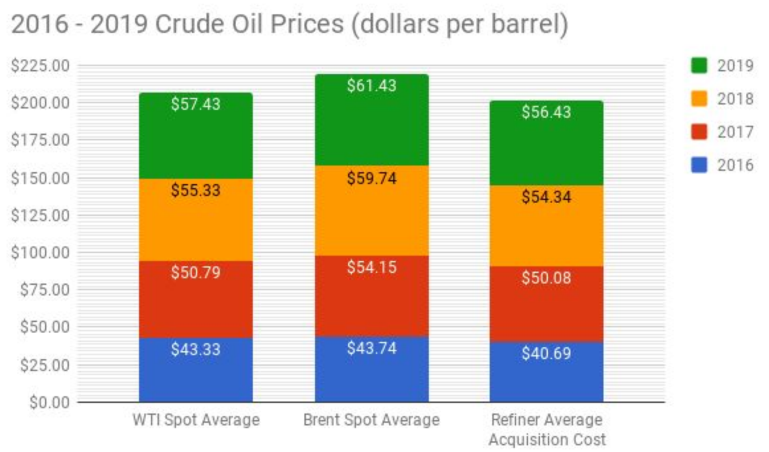
American Express and Discover transactions also posed risk of merchant loss from No Receipt Goods (0.13) and Authorization reason codes (0.15). These two card networks seemed to put more liability on grocery merchants for providing proof of delivery and getting full consent from cardholders to authorize a transaction.

Petroleum Industry

At A Glance

Crude oil prices are expected to increase while motor consumption remains relatively stagnant up to the year 2019.

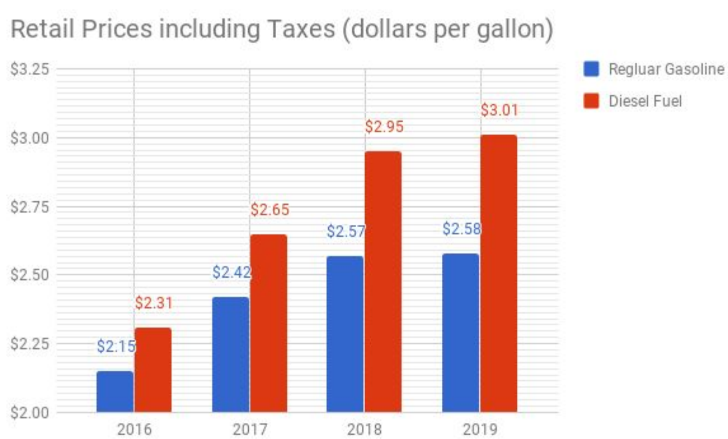
By that year, according to the *U.S. Energy Information Administration*, motor vehicles in the U.S. are expected to consume 9.39 million barrels per day. That will be 0.75% more than it was in 2016 (9.32 million barrels per day).



Source from U.S. Energy Information Administration

Despite this small growth, petroleum conglomerates such as Chevron can expect U.S. crude oil (e.g., WTI Spot Average) to cost an average of $57.43 per barrel, which is a 32.54% increase from its price in 2016.

However, the Brent Spot Average, which is the global benchmark that prices oil from the North Sea, can have said conglomerates pay an average of $61.43 per barrel.



Source from U.S. Energy Information Administration

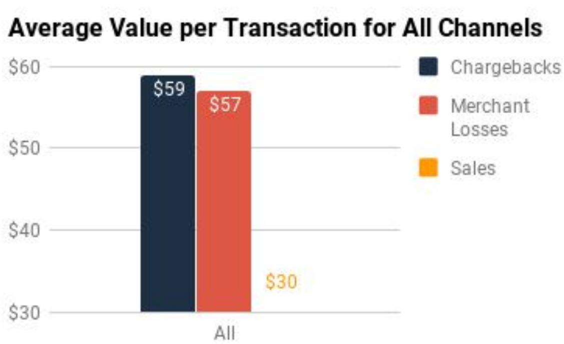
That is a 40.44% increase from its price in 2016. If you plan to buy gasoline directly from an oil refinery, you can expect them to pay an average of $56.43 per barrel; and that is a 38.68% increase from 2016.

It is worth noting that while the average prices in crude oil had increased within a four-year period, its increase appeared to have dropped by 8.28% and 14.57% between the percentage changes of 2016-2017 and 2017-2018. This trend seems to continue to drop by 4.66% and 7.49% between the percent changes between 2017-2018 and 2018-2019. To some extent, the average crude oil price will soon hit its peak.

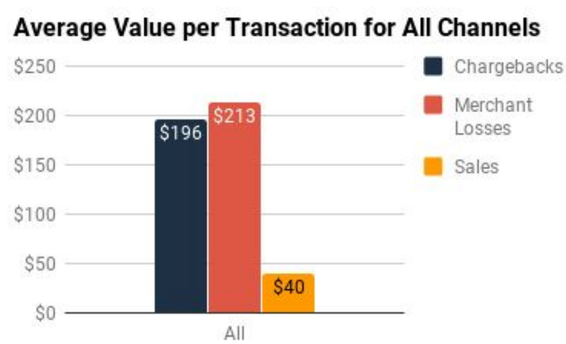
As you decide with whom to develop a contract, you should know the national retail price in regular gasoline and diesel fuel will increase in the near future. By 2019, the national retail price, including federal taxes, for regular gasoline and diesel fuel will reach $2.58 per gallon and $3.01 per gallon, respectively.

However, these prices do not include state and local taxes, so it is advised to search for this information accordingly as you establish a gas station. Here is what petroleum merchants experienced as they managed chargebacks and lost revenue.

Average per Value Transaction for All Channels Combined



Visa and MasterCard



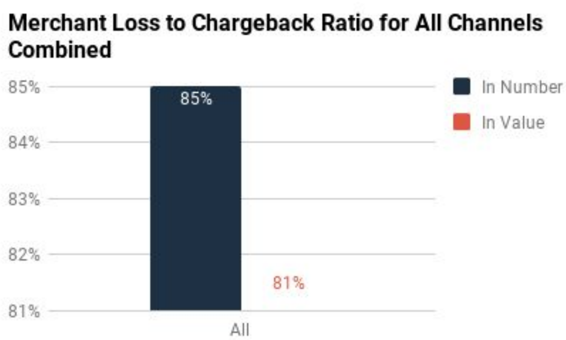
American Express and Discover

On average, chargebacks were valued at $59 per transaction for petroleum merchants, across all transactions from Visa and MasterCard. That only put this value around 3.39% over its respective merchant loss ($57 per transaction). But petroleum merchants earned an average of $30 per transactions from sales, which shows these merchants losing $27 for every transaction that initiated a chargeback.

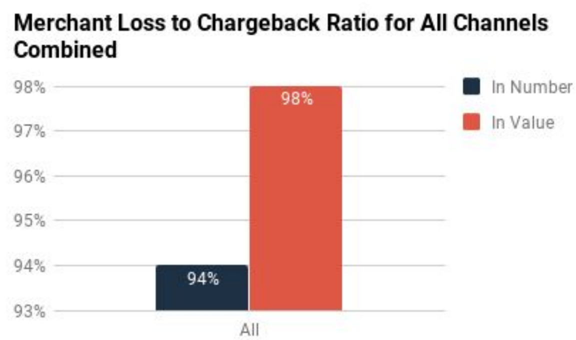
However, petroleum merchants faced more revenue loss from American Express and Discover transactions. And it was not just losing an average of $213 per transaction, which was 7.98% higher than what its respective chargeback was valued. It was also that petroleum merchants who accepted American Express and Discover lost 73.24% more revenue than they would from a chargeback initiated by a Visa and MasterCard transaction.

The earnings from sales may had reduced the average revenue loss to $173 per transaction. But that is still represents a significant margin over merchant loss value from Visa and MasterCard[4].

Merchant Loss to Chargeback Ratio for All Channels Combined



Visa and MasterCard



American Express and Discover

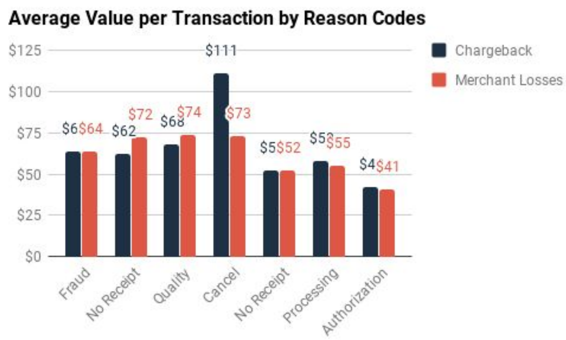
A chargeback (94%) and its respective merchant loss (98%) were more probable from American Express and Discover transactions. The same can be said about Visa and MasterCard transactions.

But the likelihood of a chargeback from Visa and MasterCard transactions was 9 points lower than it was with American Express and Discover transactions. The likelihood of a merchant loss was 17 points lower than its counterpart from American Express and Discover transactions.

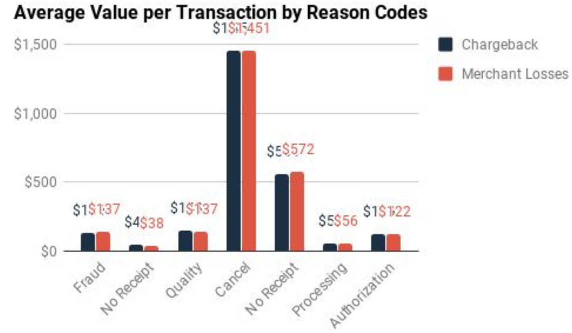
It is interesting to notice the 4-point margin within both schemes, where a chargeback is more likely to occur than its respective merchant loss value by 4%. And the merchant loss value from American Express and Discover transactions were 4% more probable than the likelihood of a chargeback occurring.

[4]When sales is taken into account, petroleum merchants lost 84.39% more revenue from American Express and Discover transactions, relatively to Visa and MasterCard transactions.

Average Value per Transaction by Reason Code



Visa and MasterCard



American Express and Discover

Cancel reason codes developed the most chargeback value across all categories and card networks. American Express and Discover transactions developed an average of $1,451 per transaction, which was 92.35% higher than the average chargeback valuation from Visa and MasterCard transactions. The second highest chargeback value from American Express and Discover transactions originated from No Receipt Information reason codes ($556 per transaction).

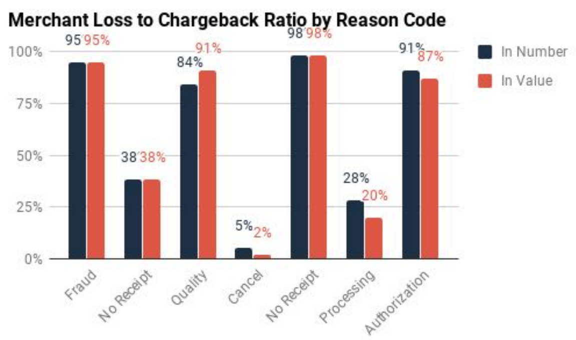
This category had at least a 73.38% margin over Quality ($148 per transaction) and Fraud reason codes ($130 per transaction), which respectively produced the third- and fourth-largest chargeback values from American Express and Discover transactions.

The average chargeback value was $65 per transaction across all reason code categories from Visa and MasterCard transactions. That was 81.79% lower than the average chargeback value developed by American Express and Discover transactions ($357 per transaction).

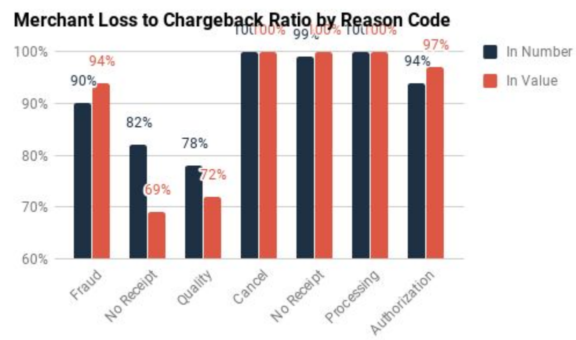
"American Express and Discover transactions developed an average of $1,451 per transaction, which was 92.35% higher than the average chargeback valuation from Visa and MasterCard transactions"

The only reason code categories that had higher merchant losses, relative to chargeback value, was No Receipt Goods ($72 per transaction) and Quality ($74 per transaction). Both merchant losses respectively had a 13.89% and 8.11% margin over its chargeback values, suggesting that Visa and MasterCard will penalize petroleum merchants slightly more than what the chargeback was valued.

Merchant Loss to Chargeback Ratio by Reason Code



Visa and MasterCard



American Express and Discover

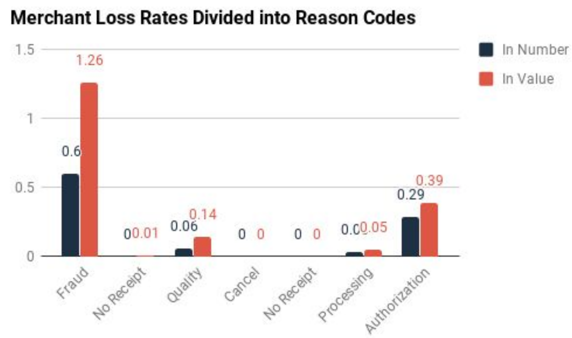
Chargebacks from Visa and MasterCard transactions were more likely to occur from the follow reason code categories: Fraud (95%), Quality (84%), No Receipt Information (98%) and Authorization (91%). The merchant loss ratios from four these categories show petroleum potentially lost the valuation shown in the previously section.

The number of chargebacks were considered less probable from No Receipt Goods (38%), Processing Error (28%) and Cancel reason codes (5%). The merchant loss valuation from these three categories relatively were close to its chargeback ratio by a range of 3% to 8%. Petroleum merchants can expect more liability whenever a Visa or MasterCard cardholder disputes that: a.) the cardholder was a victim of fraud; b.) the quality of gas or service was not as described; c.) no clear record or merchant descriptor was provided to the cardholder; or d.) the cardholder did not authorized the purchase.

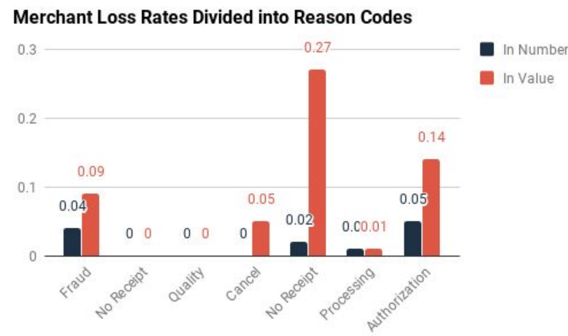
While American Express and Discover transactions had a strong likelihood of producing a chargeback, it was more probable among Fraud (90%), Cancel (100%), No Receipt Information (99%), Processing Error (100%) and Authorization reason codes (94%). Its respective merchant loss ratios also show the average valuation occurring more often than not.

The categories that show the merchant loss valuation being less probable were from No Receipt Goods (69%) and Quality reason codes (72%). And that put its likelihood of occurring 6 points and 13 points less than its chargeback ratio.

Merchant Loss Rates Divided into Reason Codes



Visa and MasterCard



American Express and Discover

The only Visa and MasterCard transactions that posed a risk in merchant loss came from Fraud (1.26) and Authorization reason codes (0.39). Quality reason codes (0.14) had its share of risk as well. But its chargeback rate was over 4.8 times less than it was from Authorization reason codes and 10 times less than it was from Fraud reason codes. Petroleum merchants had a relatively well performance in all other reason code categories. They will just need to improve their tactics in fraud prevention in the near future.

However, those who accepted American Express and Discover transactions did well in preventing chargebacks across all reason code categories. The only categories that posed some risk in merchant loss came from No Receipt Information (0.27), Authorization (0.14) and Fraud reason codes (0.09). But its respective chargebacks rates being 0.05 and below show that petroleum merchants understand the risk each reason code category imposes.

Restaurant Industry

At A Glance

The National Restaurant Association's [*2017 State of the Industry*] report projected that U.S. restaurant merchant had earned $798.7 billion in sales last year.

And out of the $736.8 billion that will come from commercial restaurant services, 74.93% of sales will originate from eating places, excluding bars and taverns.

"The necessity to adopt technology (e.g., mobile payment) is growing as consumers and restaurant entrepreneurs are becoming mobile"

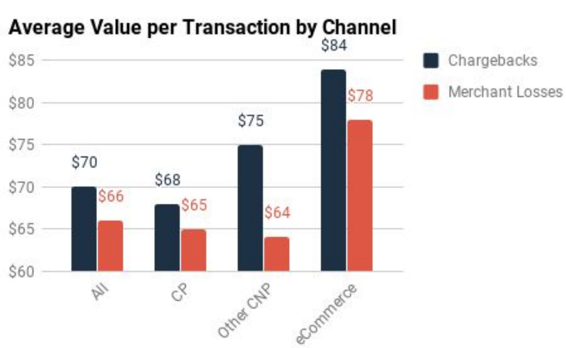
The two categories that earned the most sales from commercial restaurants services were full-service restaurants (e.g., Chilis) and quick-service restaurants (e.g., McDonald's), where each are projected to earn $263 billion and $233.7 billion, respectively.

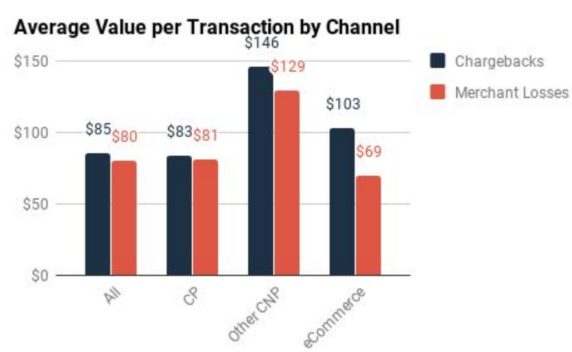
It is worth noting, after inflation, that quick-service restaurants will earn a higher percentage change (2.5%) than full-service restaurants (1.1%) when compared to its sales in 2016. The decision to franchise with a full-service or quick-service restaurant, or deciding to establish your own restaurant, will have a mixture of risks and opportunities.

But the necessity to adopt technology (e.g., mobile payment) is growing as consumers and restaurant entrepreneurs are increasingly becoming mobile.

Here were some of the values and challenges the restaurant industry experienced in terms of chargebacks.

Average Value per Transaction by Channel





Visa and MasterCard *American Express and Discover*

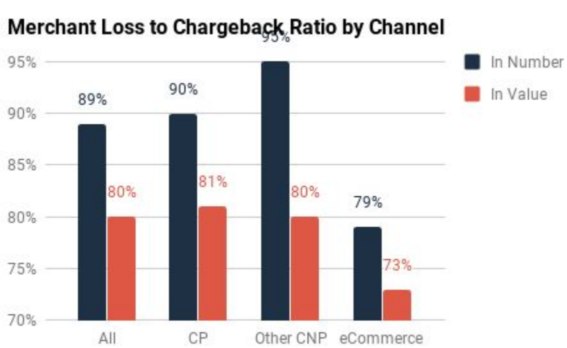
Restaurant merchants can expect chargebacks to be more valuable from CNP and eCommerce transactions. Visa and MasterCard transactions clearly show that the more digitized a transaction is, the more valuable its affiliated chargeback will become. For example, eCommerce transactions developed an average chargeback value of $84 per transaction. That was 19.05% higher than the average chargeback value from CP transactions and 10.71% higher than its CNP counterpart.

When it comes to merchant loss, which was valued at an average of $78 per transaction, eCommerce transactions had a 16.67% margin over CP transactions and a 17.95% margin over its CNP counterpart. This clearly shows Visa and MasterCard developing more valuable chargebacks when a transaction is made within the digital landscape.

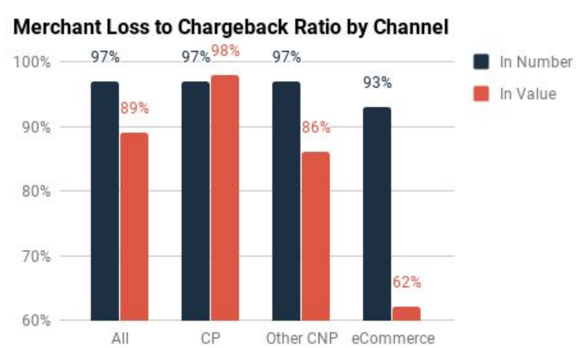
American Express and Discover transactions had a higher chargeback value across all transactions ($85 per transaction). And CNP transactions earned a 41.78% margin over that average. There does not seem to be a trend that matches Visa and MasterCard transactions. But CNP transactions developed the highest chargeback value nonetheless, along with a 43.15% margin over its CP counterpart.

Restaurant merchants need to be aware of non-present transactions developing more valuable chargebacks and merchant losses—and it will more likely increase in the near future with the rise of quick service restaurants.

Merchant Loss to Chargeback Ratio by Channel



Visa and MasterCard



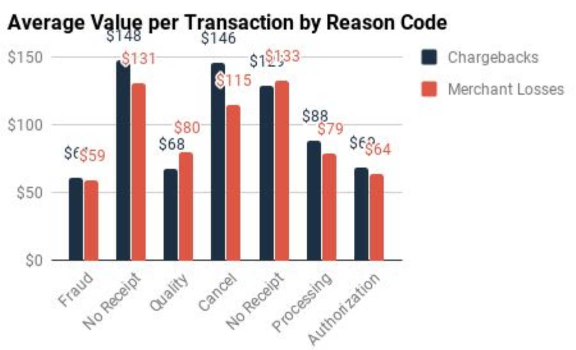
American Express and Discover

Chargebacks were likely to occur from CP and CNP transactions across all card networks. eCommerce transactions were found to have a stronger likelihood of chargebacks from American Express and Discover transactions (93%) more so than Visa and MasterCard transactions (79%). But the merchant loss valuation seemed to be less probable from Visa and MasterCard transactions, which showed a 9-point deficit when all transactions are combined.

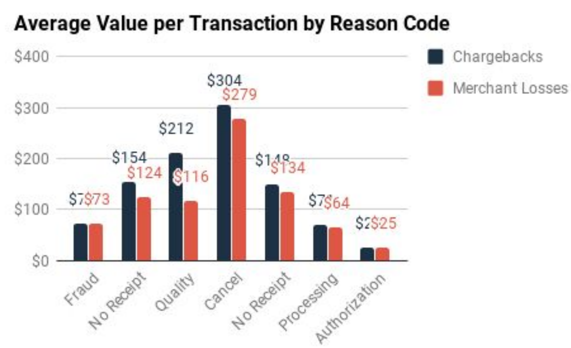
The largest deficit came from CNP transactions, where it showed the merchant loss valuation being 15% less likely than the likelihood of a chargeback. But a merchant loss ratio of 80% shows its valuation still being probable from this type of transaction.

It is worth noting that the chargeback ratio from eCommerce transactions had a 31% margin over its merchant loss ratio, respectively to American Express and Discover transactions. So while a chargeback may occur, restaurant merchants may not experience the revenue loss as shown in the previous section.

Average Value per Transaction by Reason Code



Visa and MasterCard



American Express and Discover

The largest chargeback values developed by Visa and MasterCard transactions came from No Receipt Goods ($148 per transaction), Cancel ($146 per transaction) and No Receipt Information reason codes ($129 per transaction).

Given that eCommerce transactions developed the highest chargeback values, it is not surprising that these reason codes earned high values as well. However, that does not imply that the remaining reason codes are non-threatening.

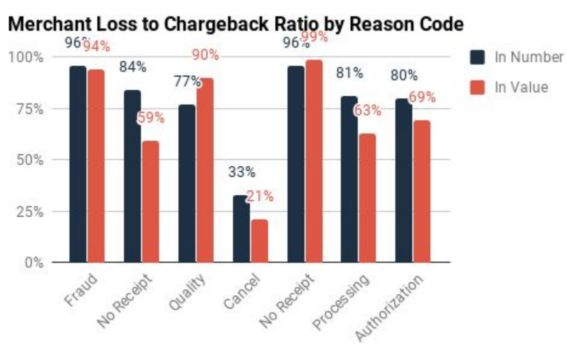
"While cancel-related chargebacks is something restaurant merchants should be aware of, quality-related chargebacks are more concerning from American Express and Discover transactions"

For example, Quality reason codes developed average chargeback value of $68 per transaction while merchant loss averaged at $80 per transaction. Restaurant merchants seemed to have been penalized slightly more than what the chargeback was valued when it comes to this reason code category. That is understandable since quality goods and services are essential in the restaurant industry.

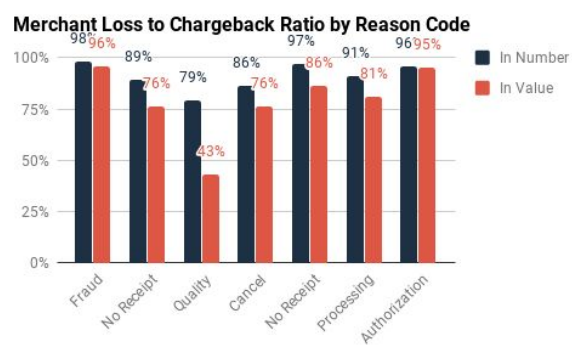
Cancel reason codes ($304 per transaction) developed the highest chargeback value across all reason code categories, respectively to American Express and Discover transactions. Quality reason codes ($212 per transaction) developed average chargeback values that were 30.26% less than what was developed by Cancel reason codes.

While cancel-related chargebacks is something restaurant merchants should be aware of, quality-related chargebacks are more concerning from American Express and Discover transactions. In fact, it seems that Quality reason codes from American Express and Discover transactions were 70.75% more valuable than it would be from Visa and MasterCard transactions.

Merchant Loss to Chargeback Ratio by Reason Code



Visa and MasterCard



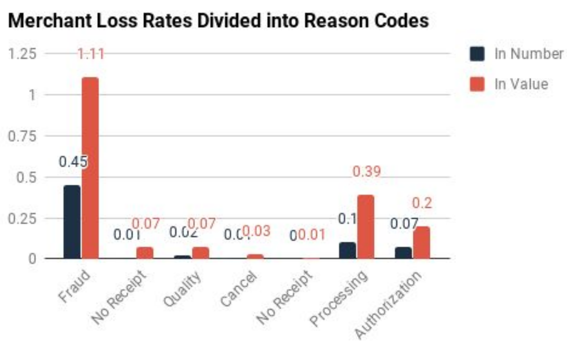
American Express and Discover

Across all reason code categories, American Express and Discover transactions had a stronger likelihood of producing chargebacks than Visa and MasterCard transactions. But the merchant loss ratio from Visa and MasterCard transactions show the above merchant loss valuation more probable from Fraud (94%), Quality (90%) and No Receipt Information reason codes (99%).

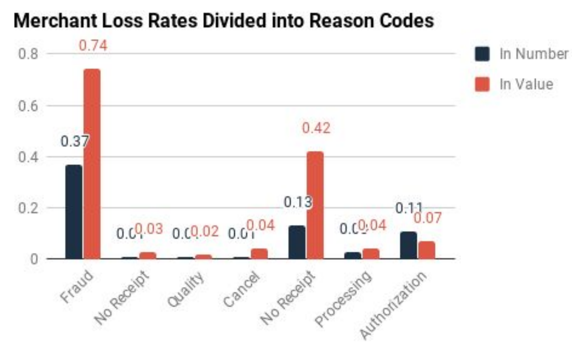
The only reason code category that had the least likelihood of chargebacks was Cancel reason codes (33%). And its merchant loss valuation was even loss probable (21%).This suggests that cancel-related chargebacks did not occur as often you one would think. The importance of clear, visible policy statements cannot be overstated when it comes to Visa and MasterCard transactions.

With regards to American Express and Discover transactions, the merchant loss ratio was the lowest within Quality reason codes, which showed the merchant loss valuation being less probable by 36% when compared to its chargeback ratio (79%). One explanation for this is that quality-related disputes were resolved more efficiently from the restaurant merchant themselves. However, other chargebacks such as cancel-related ones potentially raised more concerns.

Merchant Loss Rates Divided into Reason Codes



Visa and MasterCard



American Express and Discover

Restaurant merchants had some risk in receiving fraud-related chargebacks (0.45) from Visa and MasterCard transactions. But the risk of losing revenue was more severe (1.11).

All other reason categories showed restaurant merchants performing well in preventing chargebacks. But the risk of a chargeback causing merchant loss was more prominent from Processing Error (0.39) and Authorization reason codes (0.2).

"Given that eCommerce transactions produced more valuable chargebacks, restaurant merchants should look into fraud features that work well for digital transactions"

Restaurant merchants need to re-evaluate its fraud prevention methods, as fraud-related chargebacks pose a significant risk. Given that eCommerce transactions produced more valuable chargebacks, restaurant merchants should look into fraud features that work well for digital transactions. Chargeback Alerts is a free feature provided by the Chargeback App, and it helps notify fraud in real-time as merchants processing other transactions.

Like Visa and MasterCard transactions, Fraud reason codes posed some risk in receiving chargebacks (0.37). And its merchant loss rate was 2 times higher than its chargeback rate. Again, all other reason code categories show restaurant merchants performing well in preventing chargebacks. The only two categories that posed some risk were No Receipt Information (0.13) and Authorization reason codes (0.11).

The merchant loss rate was more than 3 times higher within No Receipt Information reason codes. With CNP and eCommerce transaction earn higher chargeback values, restaurant merchants should make an effort to provide thorough, clear information about the transaction.

Travel Industry

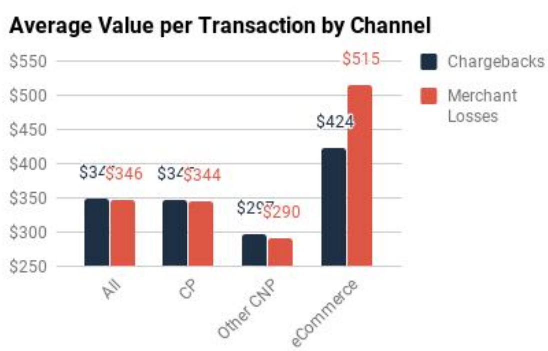
At A Glance

It's all about the experience, more so than ever in the travel industry. The U.S. market alone earned $353 billion in 2017, and it is forecasted to earn a 5% growth in 2018 ($370 billion)[5]. But being able to earn some of this revenue will depend on your ability to use experiential strategies, according to according Adobe's CMO article [15 Mind-Blowing Stats About Digital Trends In Travel and Hospitality](#).

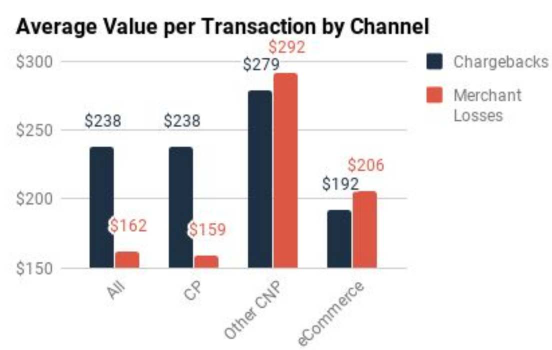
From visual reality to locals hosting an airBnB, travel merchants are using more tactics to help consumers gain an authentic view of what they can experience even before authorizing the transaction.

To some extent, being transparent on what consumers can experience will relieve some chargeback liability on your business. Especially with this industry being heavily fuel by eCommerce and CNP transactions. Here is what travel merchants experienced; and hopefully this will help you envision what you can manage and prevent while processing transactions.

Average Value per Transaction by Channel



Visa and MasterCard



American Express and Discover

Travel merchants should be aware that Visa and MasterCard transactions can develop high chargeback values and merchants whenever it is paid through eCommerce. This is similar characteristic that was found from restaurant merchants (see above), where more digitized transactions will develop higher chargeback values. Here, eCommerce transactions developed an average chargeback value of $424 per transaction, which was 18.16% higher

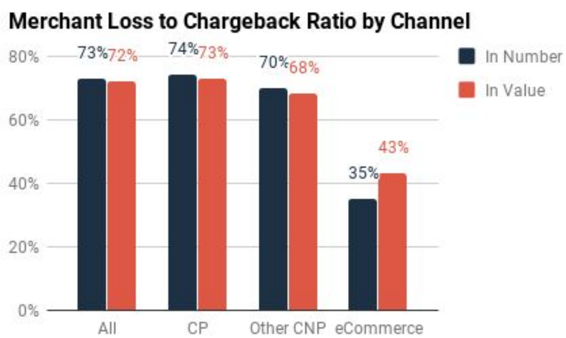
[5]See Deloitte's *[2018 Travel and Hospitality Industry Outlook](#)*.

than its CP counterpart. And travel merchants lost an average of $515 per transaction, which shows a 33.20% margin over the merchant loss value from CP transactions.

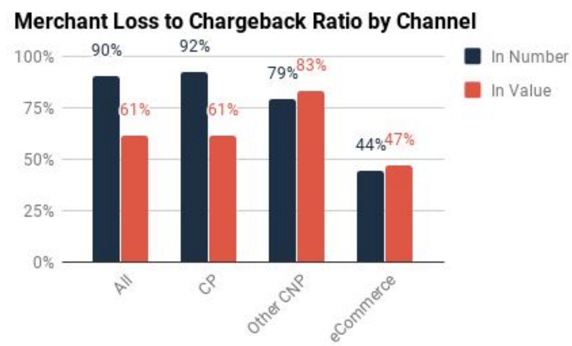
CNP transactions developed the highest chargeback values ($279 per transaction) from American Express and Discover transactions. But travel merchants lost an average of $13 per transaction more than what the chargeback valued, which was a 4.45% margin over the chargeback value.

It worth noting that CP transactions outnumbered eCommerce transactions in terms of chargeback value. This is significant, mainly because CP transactions were outnumbered by both CNP and eCommerce transactions in all other other industries previously described. Online reservations may be more prominent. But it does not change the fact travel merchants authorize the transaction in-person, presumably to verify the identity of the cardholder.

Merchant Loss to Chargeback Ratio by Channel



Visa and MasterCard

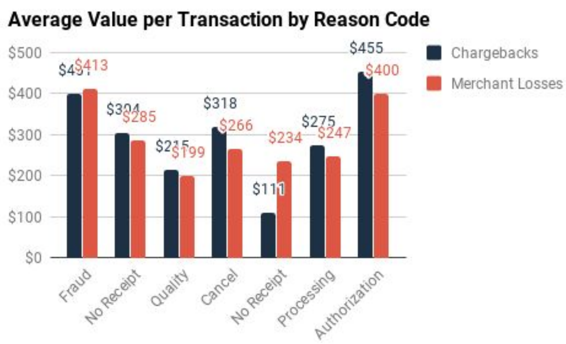


American Express and Discover

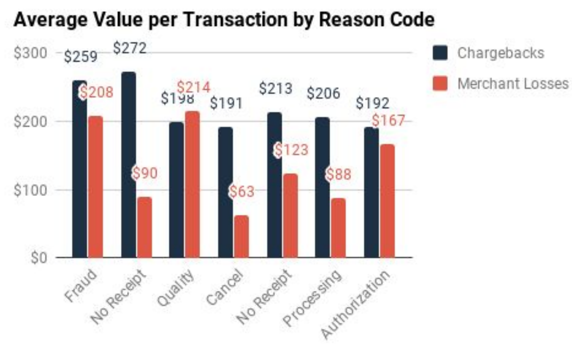
A chargeback had a stronger likelihood to occur from American Express and Discover transactions across all transactions, relatively to Visa and MasterCard transactions. However, it was more likely that CP transactions developed a chargeback (92%) while its merchant loss valuation was less probable (61%).

What is interesting is that eCommerce transactions were the least likely to produce chargebacks. The chargeback ratio was 35% from Visa and MasterCard transactions while American Express and Discover transactions developed a 44% chargeback ratio. The likelihood of a chargeback happening from this transaction was 35% lower than what it was for CNP transactions, respectively to all card networks.

Average Value per Transaction by Reason Code



Visa and MasterCard



American Express and Discover

Visa and MasterCard transactions developed the highest values from Fraud and Authorization reason codes, both in terms of chargeback and merchant loss value. On average, fraud-related chargebacks had travel merchants lose $12 more per transaction than what the chargeback was valued—a 2.91% margin over the chargeback value.

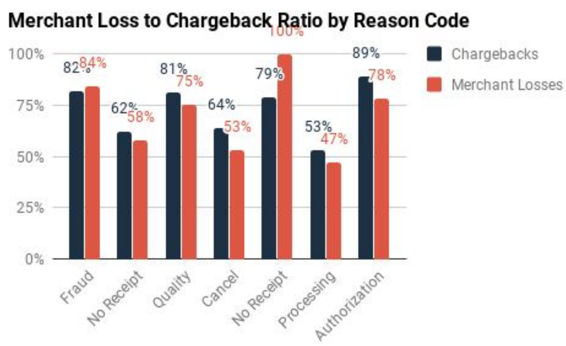
"[Visa & MC:] The largest margin in merchant loss came from No Receipt Information reason codes, where travel merchants potentially lost approximately 52.56% more in revenue than what the chargeback was valued"

The largest margin in merchant loss came from No Receipt Information reason codes, where travel merchants potentially lost approximately 52.56% more in revenue than what the chargeback was valued ($111 per transaction).

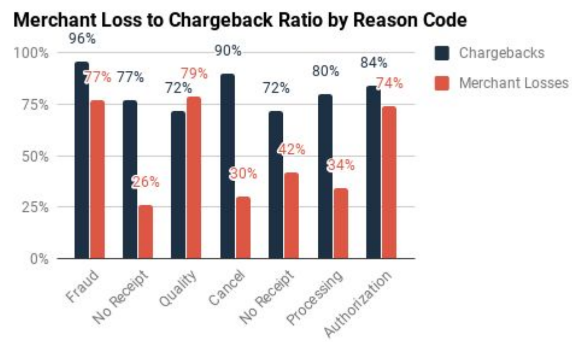
All other reason code categories showed the average chargeback value earning a margin that ranged from 7.44% to 12.09% over its respective merchant loss value.

With regards to American Express and Discover transactions, Quality reason codes were the only reason codes that showed travel merchants losing more revenue than what the chargeback was valued ($198 per transaction). Three out of seven reason codes developed average chargeback values that were more than double its respective merchant loss. For example, Processing Error reason codes developed an average chargeback value of $206 per transaction while the average merchant loss was $88 per transaction. That results in a 57.28% margin over its merchant loss value.

Merchant Loss to Chargeback Ratio by Reason Code



Visa and MasterCard



American Express and Discover

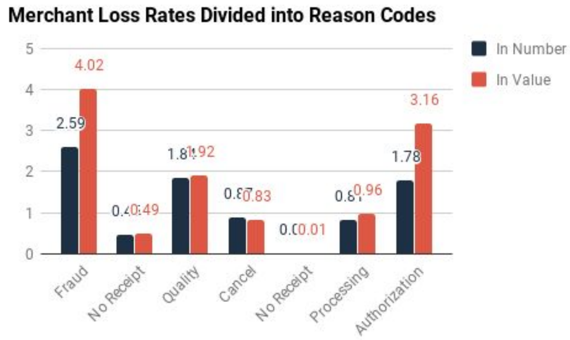
Visa and MasterCard transactions had a strong likelihood of producing chargebacks from Fraud (82%), Quality (81%), Cancel (81%) and Authorization reason codes (89%). And the merchant loss valuation from these categories were considered probable, especially from No Receipt Information reason codes (100%).

It is interesting to see the chargeback ratio from No Receipt Information reason codes was 17% higher than its No Receipt Good counterpart. It seems that Visa and MasterCard cardholders dispute more about not receiving proof of transaction than receiving proof of delivery.

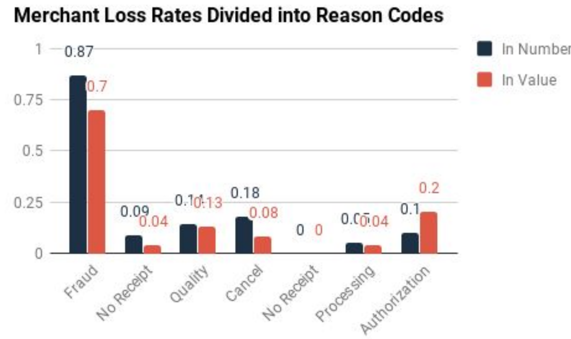
American Express and Discover transactions also showed a relatively strong likelihood of producing chargebacks. But its merchant loss valuation was lower by, at minimum, 30% from the following reason code categories: No Receipt Goods (26%), Cancel (30%), No Receipt Information (42%) and Processing Error (34%).

Fraud and Authorization reason codes were the only categories that had a strong likelihood meeting its merchant loss valuation. Given that CNP transactions developed the most valuable chargebacks and merchant losses, it is not surprising that these two categories will would potentially affect travel merchants.

Merchant Loss Rates Divided into Reason Code



Visa and MasterCard



American Express and Discover

From Visa and MasterCard transactions, travel merchants were in severe risk of receiving chargebacks and merchant loss from Fraud, Quality and Authorization reason codes. Fraud reason codes have a chargeback rate of 2.59 and its respective merchant loss rate is 4.02. This statistic alone should motivate travel merchants to improve proceedings that relate to fraud protection and dispute resolution.

Travel merchants should adapt additional procedures that verify whether a given transaction has been approved by Visa and MasterCard cardholders. For example, customer service can highlight when a recurring charge will occur if the cardholder decides to stay longer than intended. This can also be useful to prevent chargebacks that relate to cancellation, which showed to have a chargeback rate of 0.87 and a merchant loss rate of 0.83.

With regards to American Express and Discover transactions, the only reason code category that posed a chargeback risk was Fraud reason codes (0.87). Travel merchants can expect a merchant loss if fraud-related chargebacks are not handled properly, given that its rate was 0.7. All other reason code categories posed a low risk in chargebacks and merchant loss. However, quality- (0.14), cancel- (0.18) and authorization-related chargebacks (0.1) need to continue preserving its low risk. But fraud-related chargebacks are a top priority when dealing with American Express and Discover transactions, let alone Visa and MasterCard transactions.

Conclusion

Chargeback values and merchants losses will vary from both the card scheme (e.g., Visa vs. American Express) and the type of transaction involved during purchase. Collectively, all merchants accepting Visa and MasterCard transactions can expect Fraud and Authorization to be the primary reason code categories to initiate chargebacks.

American Express and Discover transactions will also be vulnerable to fraud-related chargebacks, along with reason codes affiliated to No Receipt Information. Individually, the impact of chargebacks will differ from any industry, whether it develops a mixture of high chargeback and low merchant loss ratios (e.g., grocery industry) or severe merchant loss rates from a given reason code category (e.g., travel industry).

Everyone will experience their own challenges in chargeback management. And that is why it is important to have a management software that is flexible to help you along the way. Here are some reasons why the Chargeback App can alleviate and prevent revenue loss:

1. Alerts and Fraud Prevention

Chargeback Alerts notifies you whenever unusual purchasing behaviors are spotted during processing.

From suspicious CNP transactions to post-transactional fraud, Alerts will help you know when fraudulent activity occurs and what actions you should take without harming your bottom line, let alone your relationship with customers.

This feature is continuously updated accordingly to the changing rules set by card networks and policies established by the participating issuing banks.

2. Real-Time Dispute Resolution for Refunds, Rejections & Representment

Fraud- and authorization-related chargebacks will be more manageable if done it real-time. That's what allows you to prevent a chargeback from occurring and have your internal teams make appropriate actions, which will decrease your chargeback and merchant loss ratios.

Chargeback's Real-Time Dispute Resolution (RTDR) will notify you when a dispute has been filed and for what reason. This gives you the extra time needed to resolve the dispute directly with the cardholder or, if such an event occurs, draft a compelling response that favors you in the eyes of issuing banks.

Along with initiating refunds Chargeback's RTDR also allows you to redirect shipment in order to prevent no receipt goods-related chargebacks and decline transactions that were not authorized by the cardholder.

3. Chargeback Management Built for Your Business

Traditionally, chargebacks were handled by third-party processors who had an idea of what challenges merchants face in their industry.

But we know they may not have a complete picture of how your customer service speaks with customers or what your short- and long-term goals are in chargeback rates.

The Chargeback App is a SaaS software that gives your internal team the tools needed to handle any given scenario. No one else knows your business better than you. That is why our management software is built to be

flexible for you, rather than you becoming
adjusted to a third-party processor.

Let us help you experience a whole new experience in chargeback management—and we will continue being with you in every step of the way.