



Mirus client conference 2018

WELCOME

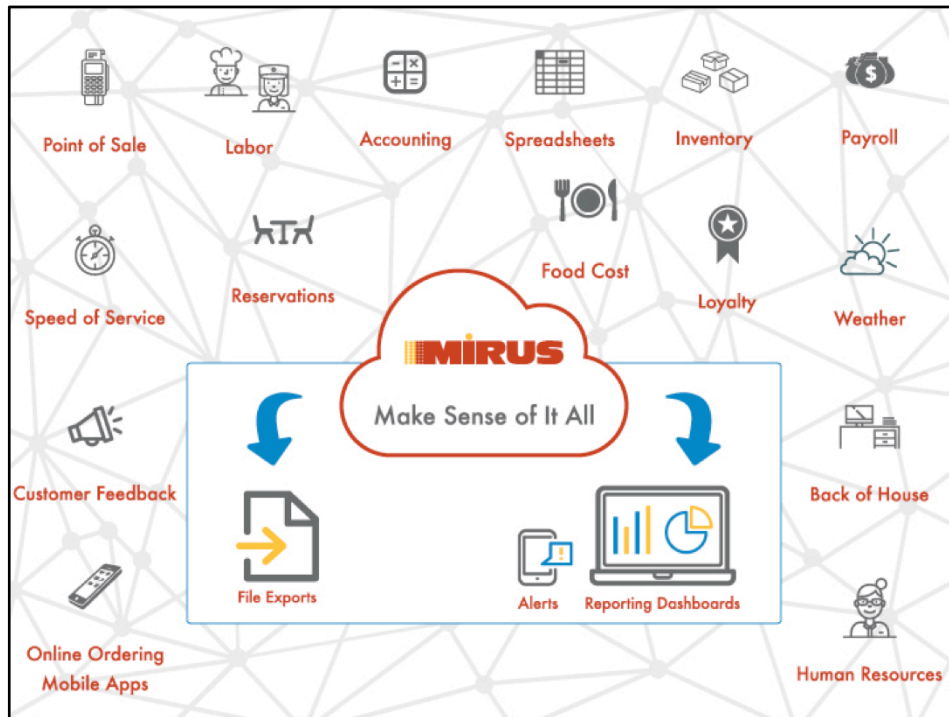
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Welcome to all of you.



Some clients attending today.

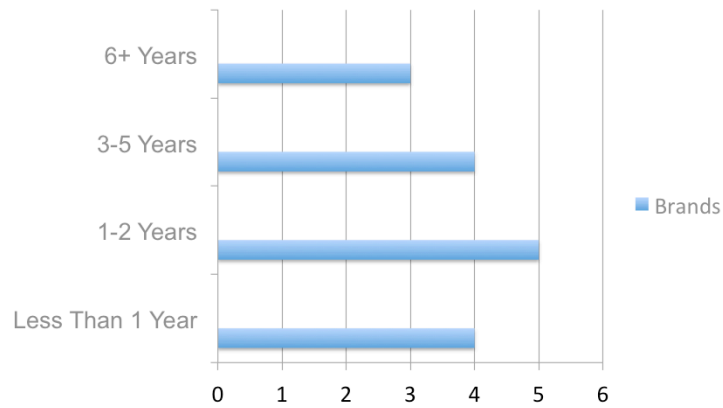


Restaurants use dozens of types of systems to run their business, and the number of categories continues to expand, and fragment.



This slide highlights some of the systems our clients use. The logos circled in yellow are used by the clients attending here today.

Time With Mirus By Brand

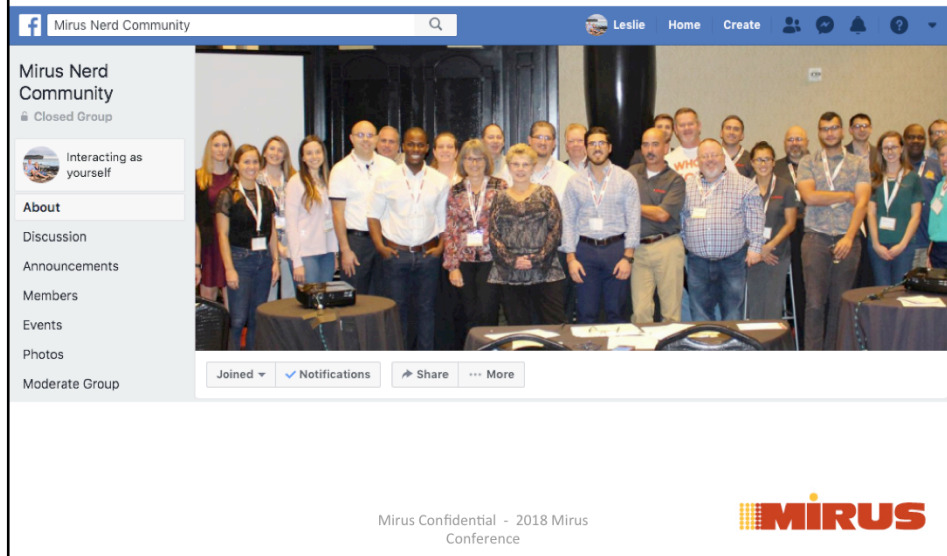


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Experience of the attendees here today span from the very new to the very experienced.

Mirus Nerd Community



We are happy to announce today the launch of our private Facebook group, the Mirus Nerd Community. This site is designed to provide clients with a forum for the exchange of questions, answers and new ideas. Please join MNC today!

The Mirus Team



An advantage of hosting this year's conference in Houston is that all of the Mirus employees can attend.

Opening Remarks

Dave Bennett, CEO



And now I introduce Dave Bennett, CEO of Mirus.

Welcome!

- 19th year for Mirus
- New venue
 - Vegas was the home for the past 12+ years
 - Where should we hold this next year?
- Lots of 1st time and 2nd time attendees
 - You have an active part in this conference
 - If you have a question, ask it!
 - If you didn't understand an answer, let us know!

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Thank you Leslie

And, Welcome to all of you to MCON 2018. For Mirus, we celebrate our 19th year of servicing restaurant companies and we look forward to celebrating our 20th year next year.

You know, for me, it is hard to believe how fast time is flying. When we started Mirus most restaurant companies did not know much about analytics and data warehousing.

In the past 15 years, the industry has come a long way in embracing the power of data, and continues to learn how to best apply analytics to improve long term results.

We are happy to see so many faces today because we weren't sure what the reaction would be when we decided to move this conference from Vegas to Houston. I am happy to see that it did not cost us any attendance.

Over the course of the next two days, we will ask you a lot of questions, but an important one will be your thoughts on location for next year. Do we continue to head East? Go back West? How about up North?

My favorite has always been the Caribbean, but many of you might have a problem justifying that with your chain of command. You can expect me to ask you tomorrow where we should do this next year.

I see a lot of faces I do not yet know, and that is great. Over the next two days I hope to spend time with all of you to get a better understanding of the issues you are managing and to get your ideas on things we can do to make your life better.

This conference started years ago with the simple objective of providing for an exchange of ideas on how to make BI and data analytics a key function in every restaurant company.

We have a bunch of presentations and training session to provide to you our thoughts, but we need your thoughts as well. If we say something along the way, please stop us and make sure we explain it to your satisfaction. Your ideas are important, and some great ideas started as a question, so ask any and all or your questions along the way.

This is your conference and we want to give you everything you need to go home with more confidence and a few new ideas you can apply with your company.

Okay, now I want to change topics.

Role of Analytics

- You are all on the leading edge
 - Data scientists of restaurants
 - Most of your peers are still locked into Excel-hell
 - No matter how much we know, there is always more to know
- The science of data analysis continues to evolve
 - New algorithms & software available
 - New sources of useful data
 - It's part of the job across many department in many companies
- Organizational changes are part of the process
 - Letting go of the past – new processes & procedures
 - Redefining roles & responsibilities
 - Training

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One thing I have learned at this conference over the years is that most of you do not see yourselves as the the pioneers you are. You are all pioneers in the use of analytics in the restaurant space. And, by the end of tomorrow, hopefully you will have a few new tools in your analytics toolbox to bring home.

When we launched Mirus, there were very few restaurant companies who were analyzing check level detail. Maybe less than a dozen.

Today, almost every restaurant company has access to check level details, but the majority of them use it only in certain situations. Like reprinting a check for example.

And, it isn't just Sales data any more. The range of data sources has mushroomed to dozens of systems.

Most of your colleagues are still using Excel to put the daily reports together. A daily exercise of cut and paste from different silos of data.

As a Mirus client, you have access to a very different world. And this world of analytics continues to evolve.

New algorithms and data models emerge every month or two, it seems. Data sources are also expanding well beyond the front and back of house.

And, the number of people who need analysis skills is growing rapidly. These skills used to be required only in a few specific jobs, but those days are fading.

Analysis skills are a necessity in more and more departments - its becoming just a part of the every day job.

This evolution towards analysis drives a lot of change in many organizations.

We have observed many people who struggle to let go of the old way and embrace the new methods, like exception-based reporting.

Helping clients navigate that change is part of the service we deliver through our Account Management team.

We are here to help with training, or exchanging best practices of how other companies have managed this change. Let us know how we can help you.

Role of Analytics

- Self-service BI is a new & different model for analysis
 - Give everyone the ability to directly get the answers they are seeking
 - “Self-service BI is only as good as the questions that people ask,” (Gartner)
 - “In a company where employees are either set in their ways [or] not focused on continuous improvement, self-service BI just becomes another layer of shelfware.”
- Keep in Mind - Just because you can doesn't mean you should
 - There are lots of interesting, but less important, analysis
 - Finding an 'Ah ha' insight is not an every day event
 - Avoid analysis paralysis – the inability to make a decision because there is more data to examine
 - Keep in mind dependent variables vs independent variables
 - The value of dependent numbers is driven by other metrics (base metrics)
 - Independent variables are numbers you can directly influence by your actions
 - For example, Check Average is dependent on Total Sales and Check Count
 - Discount Amount is independent and can be directly controlled by management

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Mirus has been delivering Self-service BI since the beginning. The genesis of the original code was to build a better platforms for analysts to use to study data.

That was back in 1998. A key design objective was to eliminate the need to know Sql or other technologies to use the platform. Our big-company competitors like Cognos and Microstrategy talk about self-service BI as if it is in their future. It is nice to be ahead of them in this regard.

A simple definition of self-service BI is the ability for anyone with a question to go get the fact-based answer directly, without having to request service from an analyst or IT.

This definition focuses on access to the data, but there another result of self service BI is the need for more people to ask meaningful questions.

I have a quote from Gartner here that sums it up nicely, self-service BI is only as good as the questions people ask.

The value created is often directly related to asking new and unique questions of the data.

If the organization does not evolve around self-service BI, it can lead nowhere. Just another shelfware.

Knowing what the data is telling you is everyone's responsibility, not just a few elite.

On the other hand, you have to be careful that you don't fall prey to analysis paralysis, or studying things that are not important to your company.

Analysis is fundamentally a process of discovery. You might have an idea you start with, but many times you end up with an insight you just didn't expect.

Following what the data is telling you is part of the process, and can lead to important discoveries.

However, there are also a lot of things that could be examined, but are far less likely to reveal any important new insight.

Just because you CAN study something doesn't mean you SHOULD

Knowing the difference between an analysis that is likely to be valuable from one that is unlikely to be valuable is important.

I have a tip for you right off the bat. Everyone knows what a Measure is, right? Right?

Well, my tip is to encourage you to think about the data as being independent or dependent.

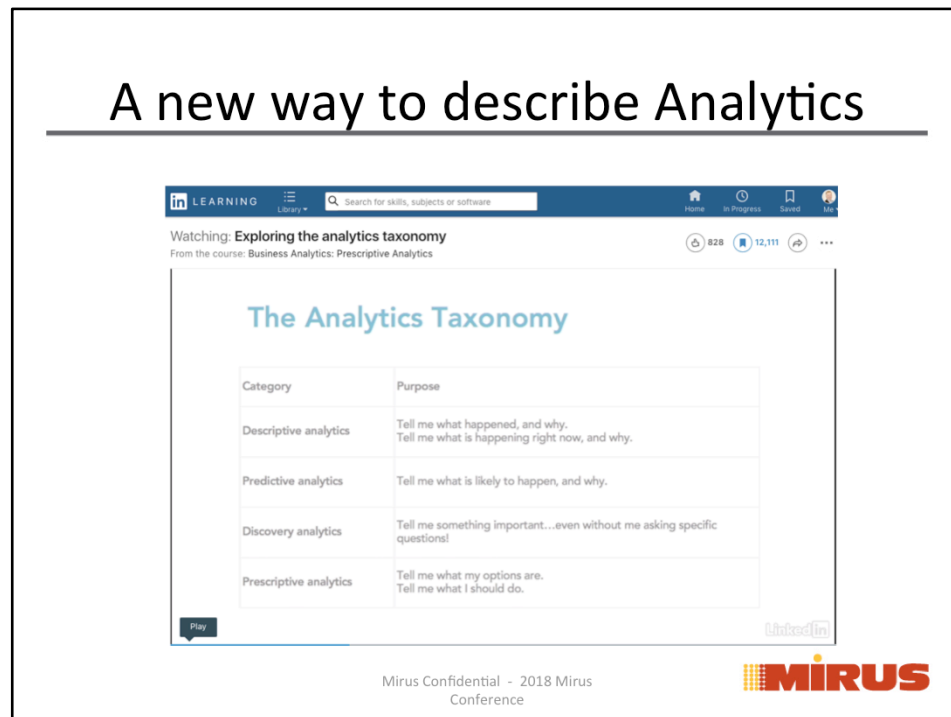
For example, Average Check is used by all restaurant companies. The math is simple: Total sales divided by Total check count.

It is a dependent measure. If you want to increase check average, the direct way would be to increase sales by upselling or suggestive selling.

Deploying a suggestive or upsell program is something you can take action on. The result of that action will determine whether Avg check increases.

In comparison, Discount Amount is often an independent variable. You can choose to offer a discount or not, and that will determine the value of Discount Amount.

A new way to describe Analytics



The screenshot shows a LinkedIn Learning video player. The video title is "Exploring the analytics taxonomy" from the course "Business Analytics: Prescriptive Analytics". The video has 828 views and 12,111 likes. The video content displays a table titled "The Analytics Taxonomy" with two columns: "Category" and "Purpose".

Category	Purpose
Descriptive analytics	Tell me what happened, and why. Tell me what is happening right now, and why.
Predictive analytics	Tell me what is likely to happen, and why.
Discovery analytics	Tell me something important...even without me asking specific questions!
Prescriptive analytics	Tell me what my options are. Tell me what I should do.

Below the table, there is a "Play" button and a LinkedIn logo. At the bottom of the slide, it says "Mirus Confidential - 2018 Mirus Conference" and the Mirus logo.

I mentioned that the science of analytics is changing quickly. Here is an example of that evolution.

These definitions were lifted out of LinkedIn's education library. It breaks analytics into four categories.

The important thing here is that 5 years ago, you would have seen a much different taxonomy because concepts like Discovery hadn't been formulated.

The first two types of analysis should feel familiar to most of you. Descriptive analysis answers the WHAT question, like what happened with sales yesterday.

Predictive analysis is more about the future and what is likely to occur given recent and not-so-recent events.

For those of you who have heard me explain the Information Learning Curve, you might recall that these first two were clearly part of the definition.

If you haven't heard me talk about the ILC, you are in luck - I will discuss it more in my closing comments tomorrow.

The last two categories of analysis in this taxonomy are powerful concepts that are rarely, if ever, applied in restaurants today.

Discovery is unique in that it implies that the human doesn't have to do anything - it's all done by algorithms.

This is where the system is smart enough to understand a change in the pattern of data that requires a human to investigate.

When you set up an alert on an exception report, you have created a mini version of discovery. If there are any results that fit the condition you set, an alert is sent.

However, the intent within this taxonomy takes it to a whole new level. In the alert example, you set a filter value on a measure.

In this definition of Discovery, the system takes it upon itself to find any significant changes to the data and brings it to your attention. You don't set the threshold.

Finally, there is Prescriptive Analysis. In this model the system delivers a recommended action, not data. The human is expected to read and react to the direction.

I am sure this rubs some people the wrong way, but we have already embraced this concept in our daily lives. How many of you have a Fitbit, or other monitor?

Nowadays, your phone is probably keeping track of your steps. These devices tell us when to get up and move around. And some of pay attention to it!

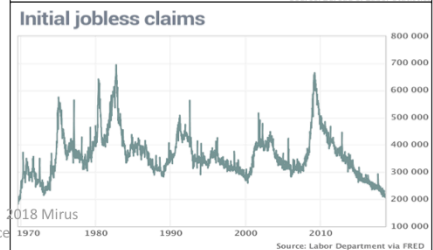
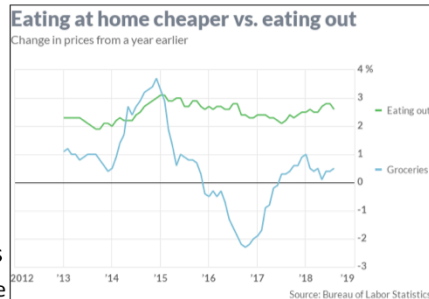
When we ask Google or Siri to remind us of something, we are asking the device to just tell us when its time to take action.

So, instead of giving the Manager the relevant data that would lead them to take a specific action, the system just tells them to take the action without giving them the data reason why.

Sounds like science fiction? It is happening as we speak. Within the next few years, Prescriptive analysis will take center stage in the analytics space.

Industry Review

- The industry is shrinking the number of locations
 - 2% decline in 2017 (NPD source)
 - The total restaurant count reached a peak in the fall of 2015
 - Independents down 3%, chains flat
- Grocery is taking \$\$\$ from restaurants
 - Price increases at restaurants continue to exceed Grocery
 - Contributes to decline in traffic
- Labor shortages everywhere
 - Minimum wage hikes
 - Walmart \$15/hr
 - Non-wage incentives being used



I want to spend a couple of minutes on the continued evolution of the restaurant industry.

I have been fortunate to observe this industry for more than 40 years, and the only consistency from year to year is change. Over that time, I have witnessed the maturity of the industry, from one of high growth to one where growth is expected to reflect the growth in population, or GDP.

There are roughly 650,000 restaurants in the US, and that number peaked in 2015. For the past two years, the number of restaurants has declined.

Last year, there was a 2% decline overall but all of it was in the small and independent part of the business. Chains maintained their store counts.

Independents lost 3% of their stores, but they still maintain a lead over chains in total number of locations.

Alan is going to have a bit more data on the industry later today.

The chart at the top shows the trend of prices in restaurants versus grocery stores. These two industries have been fighting a zero-sum game for over 60 years, and recent stagnation in commodity prices have given grocery a price advantage.

The gap has been reduced in the past couple years, but the cumulative effect has made restaurants much more expensive versus cooking at home.

This condition tells me that restaurants cannot continue to increase prices without the consequence of reduced traffic.

And, of course, we all know that labor is hard to find.

When you do find people, they are often very expensive and not well trained.

We are in the tightest labor market since I was in high school (yeah, I am that old). Last week the government published the latest jobless claims report. It was 1969 the last time this few people filed for unemployment.

It's important to keep in mind that the number of people working in the US at that time was roughly half today's number. We may not see this level of employment ever again.

The minimum wage increased in many cities across the country, and in a handful of states.

Even Walmart affects the minimum wage as they increase their minimums to \$15. If a cashier can make more money down the road at Walmart, it will be hard to keep them.

We have seen a lot of creativity with non-wage incentives to retain employees. Better hours, better benefits, and more training are some of the techniques being used by some companies.

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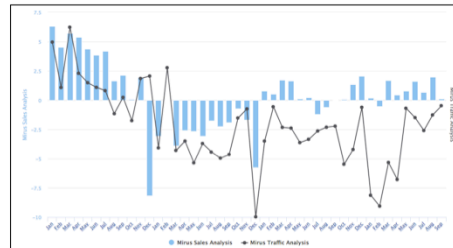
Traffic – The common problem

- Traffic is in 3rd year of negative trend
 - Started in Mar 2016
 - Price hikes keep SSS positive
- Cause is still not understood
 - Lifestyle of millennials?
 - Grocery competition?
 - Is Delivery causing this somehow?
- Lots of changes as a result
 - CEO changes
 - Mergers & Acquisitions (e.g. Sonic)
 - Bankruptcies

Cracker Barrel Has a Guest Traffic Problem CAN BONE-IN FRIED CHICKEN AND OTHER IMPROVEMENTS TURN THE TIDE?

By Danny Klein | September 2018 | Chain Restaurants

Chief executive Sandy Cochran is concerned with Cracker Barrel's traffic. The casual chain's same-store sales declined 0.4 percent in the fourth quarter, year-over-year, with average check up 3.1 percent. But a guest traffic drop of 3.5 percent spoke to a larger worry for the 660-unit brand.



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Traffic has been a major problem for most restaurant companies in the past few year. We are now in the third year of declining customer traffic.

There was a story last week in QSR Magazine about Cracker Barrel discussing how they have a guest traffic problem. My question is what took them so long to notice the elephant in the room. It is not exactly a new phenomenon.

You can see in this graph the blue columns are same store sales growth, and the dark line is same store traffic growth. Sales were in decline a few years back, but seem to have stabilized.

But traffic is still negative. Recently the trend has improved, but other than a random day or two here and there, the industry continues to loose customers.

No one is certain what is causing traffic to drop. But, everyone has an opinion. Some think it is a lifestyle change of the millennials while others think it Grocery. I have even heard that Delivery could be to blame somehow – I don't think so.

When results are not good, things change rapidly. We have seen a steady stream of CEO replacements. Sometimes it seems like musical chairs with many of the same people moving from one company to another.

We have also seen some amazing mergers and acquisitions. Buffalo Wild Wings was bought by Arby's and became Inspire Brands. Yesterday we learned Inspire Brands just bought Sonic. There is a lot of buying and selling fueled in part by cheap money.

And, we have seen a spike in bankruptcies. Now, even in a good year, bankruptcies are common in the restaurant space. Restaurant companies that do not have a strong balance sheet are at risk in the event the economy enters a recession.

Industry Review

- Consumer preferences continue to evolve
 - Convenience is king
 - New definition of healthy & sustainable
 - Social cause or relevance is important to many
- Adapt or die
 - Use data to identify root causes of your challenges
 - Don't rely on just your instincts
 - Training – the people you do hire will probably be less experienced
 - Focus on the customer experience – no longer just within the 4 walls

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In the restaurant business we know the customer is not always right, but they are constantly changing what they like and dislike.

Right now, convenience seems to reign supreme. Restaurants are struggling to service customers who want their order now, and delivered to them.

Your food not only has to taste great, it has to have a story about where it was grown or raised.

Customers want to know they are buying something sustainable and good.

Social causes are part of that in a way. Corporations are viewed with suspicion, especially if they do not talk about how they help their communities.

As is often the case with restaurants, we have to be willing to adapt or suffer the consequences.

This is where data can separate you from your competition. By examining more details you can identify root causes of issues and address them faster than your competition.

We all have experience and instincts, and they are critical tools. But, a good data scientist will avoid the temptation of acting just on their instincts.

Look for corroborating evidence in the data. Prove your hypothesis. Exercise a bit of the scientific method. Make sure you're right before you take action.

Part of the adaptation this time is understanding the people you hire may not have a lot of restaurant experience.

Training will be required to make sure they can deliver on your brand promise. With competition this intense, service is essential to separate yourself from your competition.

Lately, I have read more about companies focusing on the customer experience more than at any time in recent memory.

Your customers have more choices than ever, and restaurants have to be prepared to offer a notable experience to keep customers coming back.

Delivery

- Maybe the hottest topic in the industry
- We will work through an exercise tomorrow on this topic
- There has been a lot of press coverage on the issues:
 - Controlling the guest experience
 - Build your own, or use a 3rd party
 - The impact on operations
 - Who actually owns the customer, the restaurant or the 3rd party?
 - Too many platforms leading to overchoice.

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My final topic for this morning is Delivery. It is probably the hottest of all the topics this year.

Tomorrow we will work on an exercise that works through some of the issues we have been reading about in the press lately.

I believe it is fair to say it is too early to know the long term impact of delivery.

But, there are a lot of concerns about controlling the guest experience. And whether to use a 3rd party delivery service or build it yourself.

While more sale is typically good for any restaurant, delivery sales can put stress on operations.

If the customer is going to the 3rd party site to order and pays the 3rd party, it's a fair question to ask Whose customer is it anyway?

Finally, the proliferation of aggregators and delivery companies could be creating an overchoice dilemma for the customer.

Next slide

Delivery

- Do you have delivery today, or are you considering it?
 - Do you deliver yourself, or use a 3rd party delivery service?
- Do you know how to measure success?
 - Net Income impact?
 - Customer satisfaction?
 - Revenue improvement?
 - Cash flow?
- Do you have the controls in place to manage the new channel?
- The data issues are challenging
 - If you use a 3rd party, you won't have some important data
 - If you build your own app, it has to be consolidated with POS data

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Let's see a show of hands: How many of you have delivery or are testing it?
So, keep your hand up if you use a 3rd party to pick up the food and deliver it.

Now, raise your hand if you have your own delivery team.

Deliver it yourself or use a 3rd party. Those are the options everyone faces.

The initial costs of doing it yourself are significant. You have to develop a phone app for ordering and paying.

And for many companies, it is not clear if delivery is going to bring in new sales, or cannibalize existing eat-in sales.

This is why 3rd party delivery is so popular. You can sign up today and deliver tonight in some cases.

Regardless of which method of delivery you choose, do you know how you are going to measure whether delivery is good for your business or not.

I discussed this topic with a number of clients, and measuring success is often a challenge for them.

Is the success of the program the impact on top-line or bottom-line? or is it Customer Satisfaction?

You might not have considered there is an issue with controls. If you use a 3rd party, they collect the order and the payment.

That cash stays with the 3rd party until they pay you - which could be weekly or maybe even once a month. How will you know whether they paid you everything they should?

In essence this is a reconciliation problem, just like with cash and credit cards. I am finding many companies who did not consider this before deployment.

Either way, be prepared to take a hit to cash flow in the startup.

If you build it yourself, the cost of development is significant. If you go 3rd party, there is a significant latency between incurring the food cost and the arrival of cash.

In my research of delivery platforms I was surprised how few of them can actually put the order into your POS. It is quite rare.

Entering the order into the POS is often performed manually by someone reading a tablet and entering the order in the restaurant POS.

If you are going to build it yourself, getting the order automatically sent to your POS would be a big improvement operationally.

And, that's a wrap for me! I hope you have a great time exploring and learning over the next two days. Leslie will come back up here and let us know what is next. Leslie?

Up Next

9:30 Training

Option 1: Back To Basics (Beginner) – **Ferrara**

Option 2: Exception Based Reporting Tips – **La Scala 1**

10:30 Networking Break

10:45 Taco Mac: Saving Money Through Payroll Insights

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Up next are two training sessions.