



# Marketing Analytics in Practice

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## How to Realize Business Value of Analytics

07-28-2011

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The session will be presented by...



**Sean Kelley**  
**Customer Insight Manager**  
**WW CRM Eastman Kodak Company**



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**Industrial Principal**  
**Knowledge Services at Infosys**

## Introduction – context of the webinar content

- **Content Considerations**

- Recognize participants have varied functional roles and from organizations at different stages of analytics readiness
- Presentation contains broad information about introducing analytics into an organization as well as contextualizing the role analytics can play in the decision making process
- Provide an outline to enable an organization to realize the value of customer insight

- **What this Presentation “Is Not”**

- Does not provide a solution to a specific analytic challenge
- A “how to” on executing statistical analyses
- A discussion of statistical theories, models or techniques
- A review of tools to support analytic efforts

# Today's Agenda

- **An understanding of common challenges – operational, organizational and methodology options**
- **Understanding on what infrastructure is needed to start**
- **Steps to jump start a marketing analytics initiative to provide immediate business value**
- **How to scale an initiative as adoption expands within an organization**
- **An overview of the analytic methodologies and capabilities available to deliver “actionable” value**

## Common Challenges

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# Common Organizational and Operational Challenges

- **Some of the more challenging aspects to delivering value from an analytics program can be:**
  - **Organizational**
    - Change management - evolution to data driven decision making
    - Insight utilization – insights need to influence strategies to drive change otherwise they're just good stories
    - Roles & responsibilities – unclear who owns “operationalizing” insights
  - **Operational**
    - Data quality – insufficient, incomplete or corrupt data
    - Lack of metrics – if insight utilization is not measured then how do you drive change or adoption?
    - Test, learn & apply methodology – insights and hypotheses need to be validated by testing before being broadly applied
    - Communicating successes – learnings need to be summarized to reflect audience interests and routinely shared

# Common questions and challenges about analytics methodology



- How should I integrate and analyze data from multiple sources and formats?
- Who is responsible for capturing and analyzing customer insights?
- Where should I start to apply analytics methods?
- How can I apply insight in my demand generation activities?
- Can I evaluate the effect of analytics insights applied in my company?

# What do these challenges look like in practice?

- **For CMO**

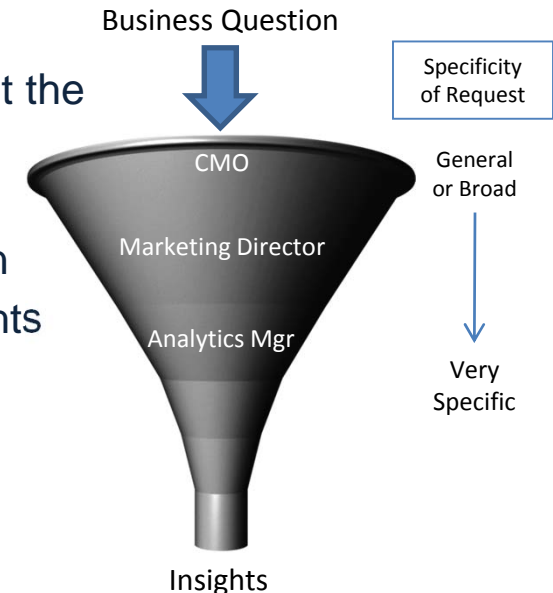
- Interested in knowing magnitude or scale of customer base

- **Marketing Director**

- Quantify effectiveness of campaign initiative(s)
- Measure overall share of customer base
- Drive improvement in targeting of marketing communications

- **Analytics Manager**

- Needs to prioritize activities on delivering results that meet the upstream needs
  - Root cause of campaign effectiveness
  - Identification of factors that impact business conversion
  - Project business impact based on key findings or insights





## What Tools & Data are Needed to Start?

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# Preliminary Self-Assessment

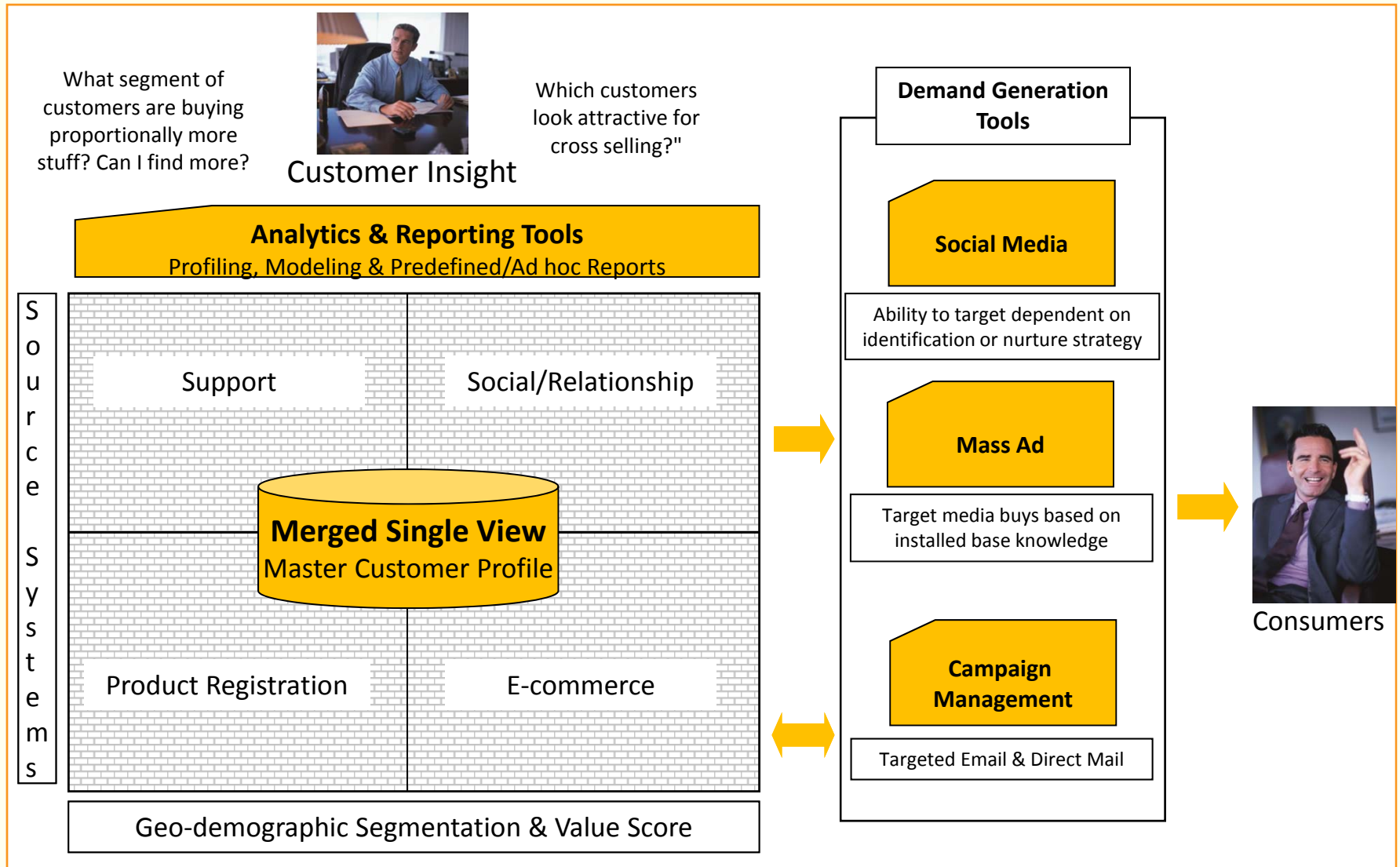
- **Quick and dirty assessment of what's available**
  - Data sources (Internal vs. External), reports, models, tools, etc
- **To what extent can I address the short-term opportunities?**
  - Use spreadsheets to integrate multiple sources of data
  - Pivot tables for target analysis
  - Available data can lead to:
    - Quantification of customer base
    - Identification of key customer segments
      - Internal application = RFM analysis
      - External application = Market potential index
- **Long-term requirements**
  - Scalable solution to accommodate increase in volume and complexity
  - Improve quality of analysis output
  - Automate analytic solutions to deliver findings



## What infrastructure is needed longer term?

- Understand existing data sources, attribute lists, reporting tools, and data warehouse schemas
  - **Action:** Complete an “As Is” infrastructure assessment of CRM ecosystem
- Identify what attributes come from which source, how complete is the data and how is it organized?
  - **Action:** Execute a source system analysis and data quality assessment

# "As Is" Infrastructure Assessment of CRM Ecosystem



# Source Systems Analysis - Consumer & Transactional Info Journey

- Attribute Mapping – what data comes from which source?
  - Develop attribute lists and data profiles for each source system

#	Entity	Field	Required/ optional?	Captured Now?	Value to Profile	eCommerce purchase	eCommerce Email	SW Product Registration	Web Product Registration	Support - Chat
1	Customer Profile	First Name	Reqd.	Yes	Basic Customer Detail	Y	Y	Y	Y	Y
2	Customer Profile	Middle Name	Reqd.	Yes	Basic Customer Detail	Y	Y	Y	Y	Y
3	Customer Profile	Last Name	Reqd.	Yes	Basic Customer Detail	Y	Y	Y	Y	Y
4	Customer Profile	Prefix/ Salutation	Reqd.	NO	Enables greater personalization	Y	Y	Y	Y	Y
5	Customer Profile	Gender	Reqd.	NO	Basic Customer Detail			Y	Y	
6	Customer Profile	Marital Status	Optional	NO	Aids in consumer segmentation			Y	Y	
7	Customer Profile	Date of birth	Reqd.	NO	Aids in consumer segmentation	Y		Y	Y	
8	Household profile	Family Size of household	Optional	NO	Aids in consumer segmentation			Y	Y	
9	Household profile	Children under 18 in household	Optional	NO	Aids in consumer segmentation			Y	Y	
10	Customer Profile	Profession – Drop Down list	Optional	NO	Aids in consumer segmentation			Y	Y	

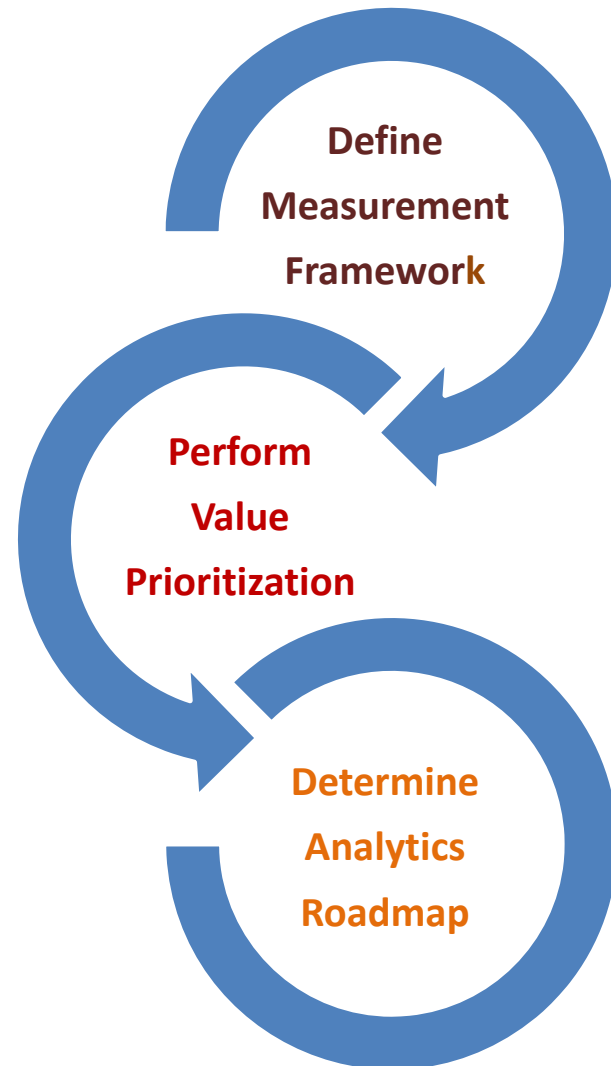
- Data quality assessment – how complete is the data by source?
  - Conduct data quality health audits to determine source completeness
- Data warehouse schema - how is data organized?
  - Data warehouse schema will enable more efficient analytic design

# Framework to Jump Start Analytics Initiative

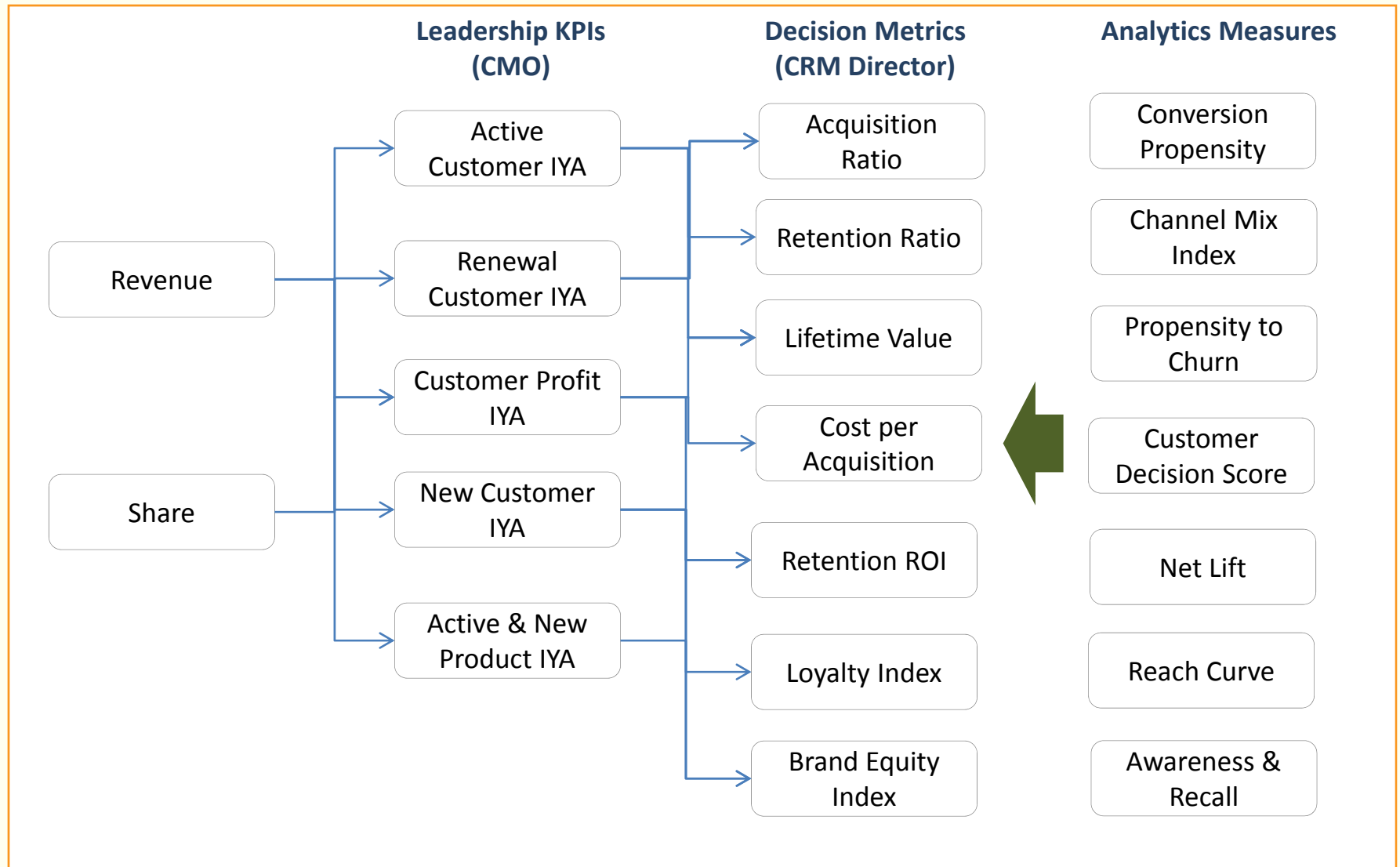
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# Three Key Steps to Realize Analytics Value

1. *Define Measurement Framework*
  - Persona-based measures
  - Decision and Building Block measures
2. *Perform Value Prioritization*
  - Portfolio Assessment
  - Business Process Impact
3. *Determine Analytics Roadmap*
  - Identify Analytics Themes
  - Assess Analytics Readiness



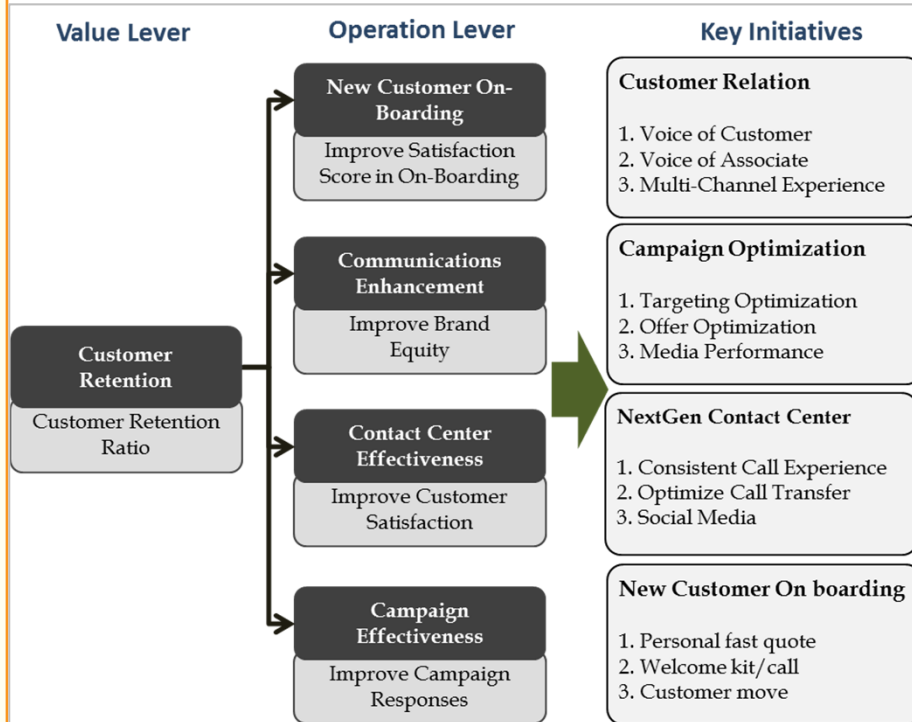
# Define Measurement Framework – Persona-Based Measures



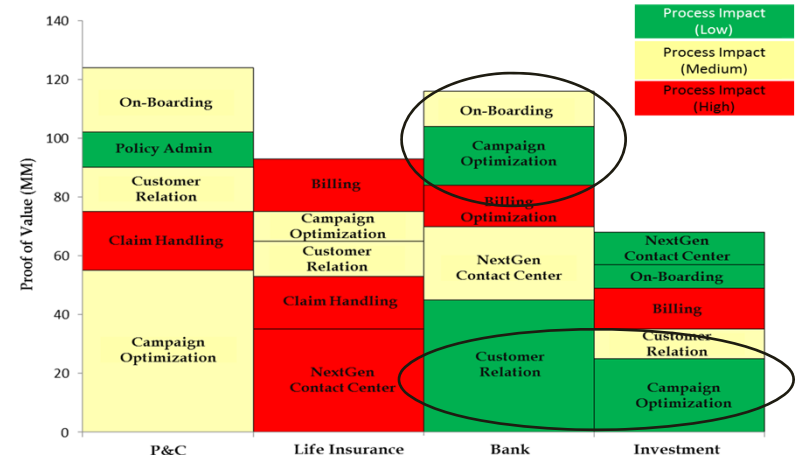
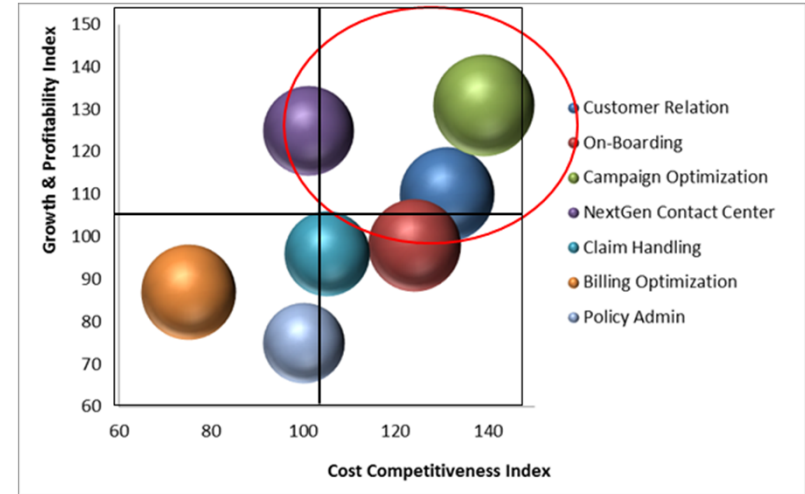


# Perform Analytics Value Prioritization – Discovery, Cost/Growth, and Proof of Value

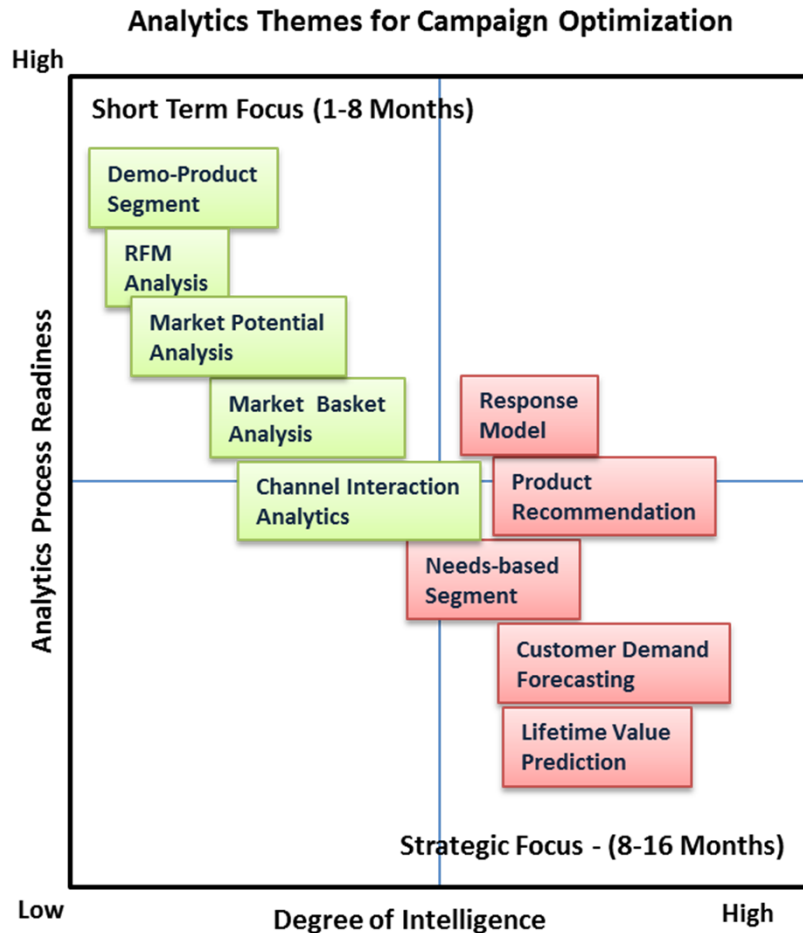
## Value Discovery



## Portfolio and Initiative Prioritization



# Determine Analytics Roadmap – Assess the Degree of Intelligence and Readiness of Analytics Process



## Who are the customers

Demo-Product Segmentation  
RFM Analysis  
Customer Profitability Analysis

Reporting

## Where are the customers located?

Geo-Intelligence  
Market Potential Analysis

Statistical  
Analysis

## What are the behavior patterns and why?

Customer & Product Affinity Analysis  
Channel Interaction Analysis

## How to meet the desires and aspirations

Customer Benefits Analysis  
Needs-based Segmentation  
Perception & Opinion Analysis

Predictive  
Modeling

## What will customer do next?

Churn and Acquisition Model  
Lifetime Value Prediction  
Customer Demand Forecasting

## How has Kodak Jump Started its Analytics Initiative

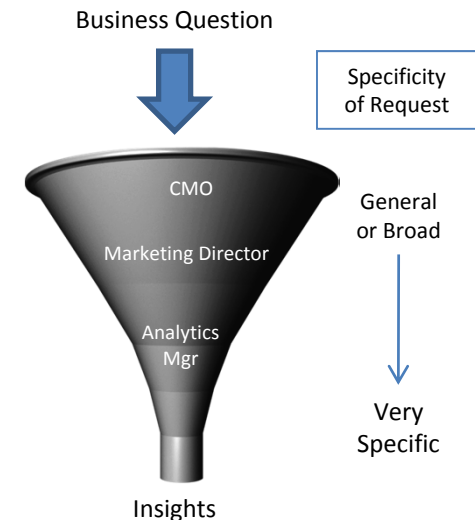
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# Business teams wanted analytics help but....

- Teams didn't know what insight was possible nor how to apply it
- **Construct answers to general business questions such as “How do I improve my category cross-sell?”**
  - Started by constructing customer personas that leveraged the installed base data to illustrate the depth/breadth of data available
    - **Action:** Identify high propensity targets for category cross-sell
  - Next, built basic consumer profiles by product category, channel, and region to identify differences between customer types
    - **Action:** Apply profiles to identify optimal campaign audience and offer

- **Lessons Learned**

- Broad type requests need to be refined by analytics team to identify the specific insight or connections within the data
- Insights can then be used to prove the value to the business through pilot or test and learn activity



## How do I align analytic resources to jump start initiative?

- Align analytics efforts to business priorities
  - Example, don't use resources to develop a predictive model that the business can't extract value from due to various constraints
  - Identify opportunities to apply insights. Example, are there upcoming campaigns where insights could be applied to drive improved results?
- Establish consumer insight dashboards (reports) to inform the business of what's known about current customers
  - Push reports to and review with an identified audience each month
  - Key learning: dashboards need to be more than numbers and trends.
    - **Action:** Provide audience ideas or specific instances on how to apply the data or insights to address a current business challenge

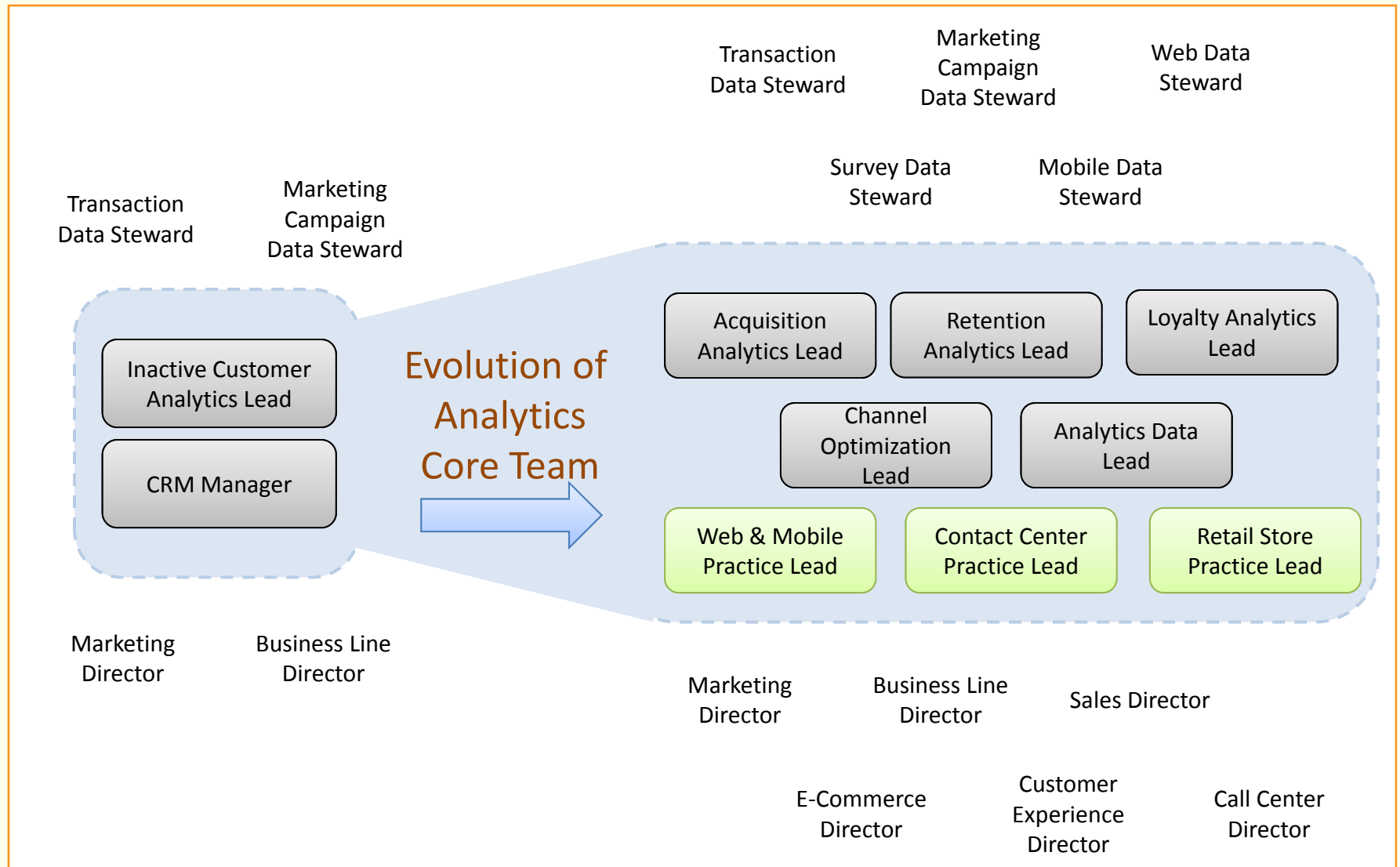
# How to Scale an Analytics Team

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# How do you scale an analytics team as demands increase?

- Now that you've been successful in demonstrating business value
  - Can current analytics team handle the increase in request types or volumes?
- Will existing organizational design limit the ability to scale?
  - Example, how many resources are focused on translation of business needs into data requirements, report design and data validation?
- If you need to add additional resources, then should they be internal? External? Onshore or Offshore?
- How should the additional resources be aligned?
  - Centralized, decentralized or combination?
  - By business function, region or customer lifecycle?

# Scale analytics core team by the nature of customer lifecycle





# Operational Considerations as Analytics Moves into the Mainstream

- Who owns responsibility of driving consumer insights application into the broader organization?
  - Change management is too broad an effort for CRM or analytics to own alone
- Ideally an owner would be identified within each of the key functional areas or regional team to “champion” the application of insights
  - If not then how do insights get integrated into the annual planning or regional go-to-market activities?
- What are the success criteria to evaluate overall reporting and analytics operations?
  - Are there established turn around times (TATs) ?
  - Is there periodic measurement or evaluation against the TATs?
  - What about measurement of quality or completeness of insights?

# Analytics Methodology

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# Identify Analytics Themes using Persona-based Questions to Actions Method



**Key Persona:**  
**Marketing Director**

## I want to know...

- How can I improve cross-sell in video camera category?
- How can I improve campaign effectiveness for new X1 video camera launching next year?
- What should I do to improve my retention ROI?



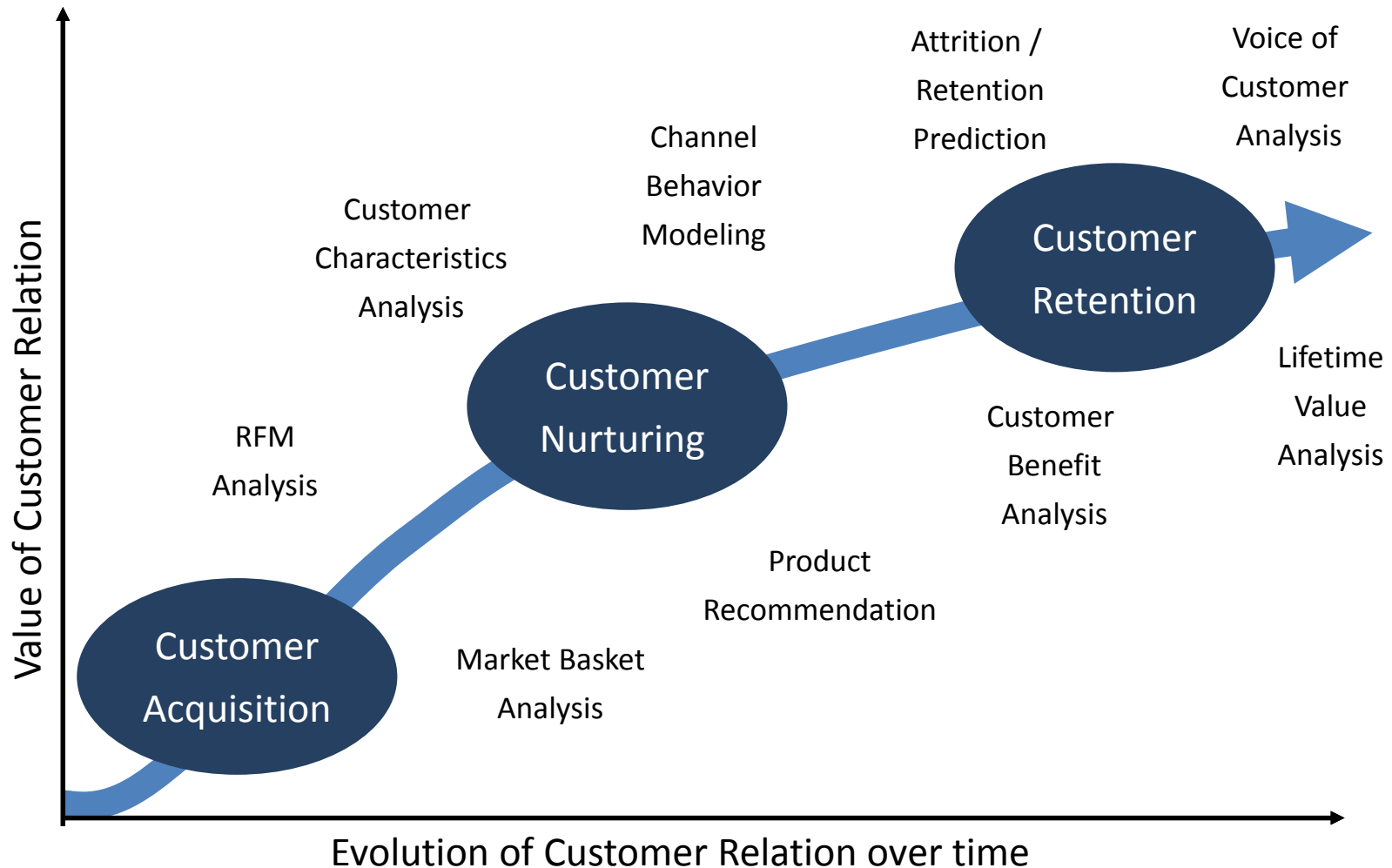
**Analytics  
Themes**



## I will take the actions to...

- Increase X1/Y1 video camera bundle campaigns targeting “Gadget Addicts” segment
- Increase 10% of local search and digital media spend in Texas and Arizona for the top 3 strategic products
- Create new referral trigger series targeting “Mom-daughter relationship” segment

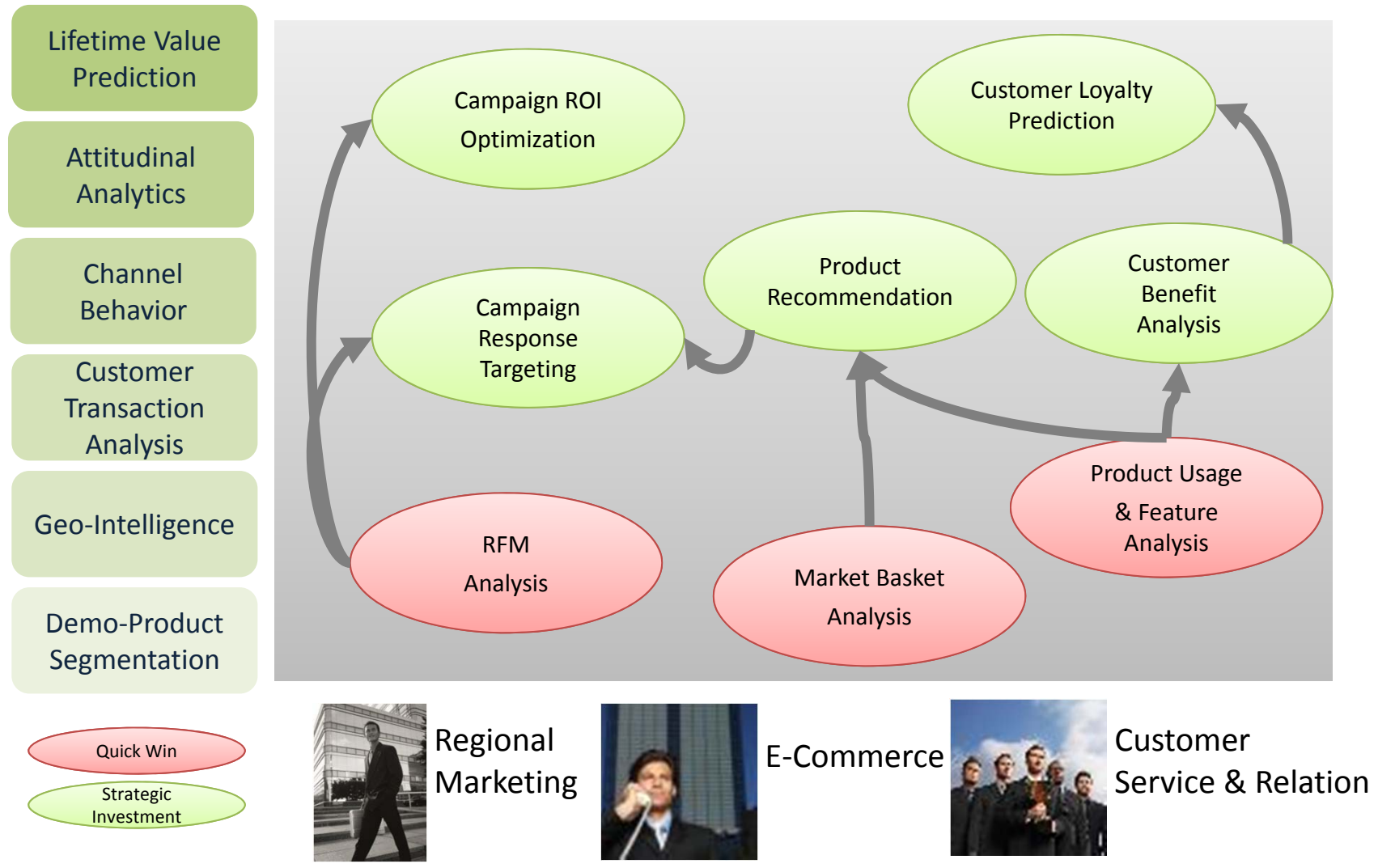
## Example: Analytics Themes with Customer Relation Focus



# Example: Analytics Themes with Customer Communication Focus

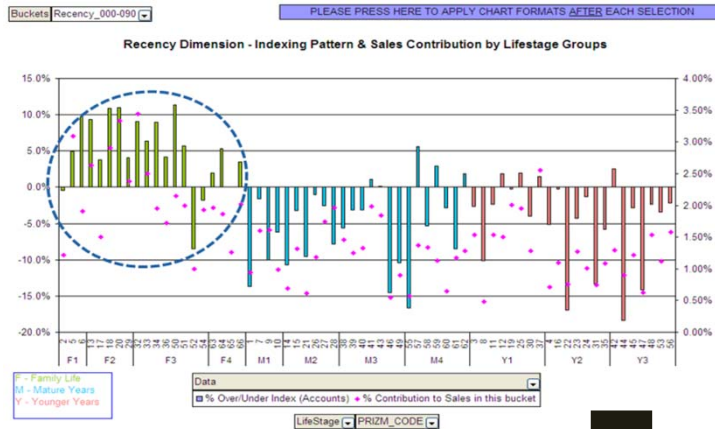


# Realign common analytics themes across business personas



# Example of Analytics Themes for Marketing Campaign Optimization

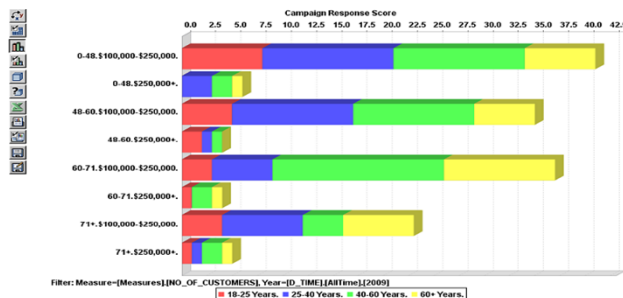
## RFM & Demo Analysis



## Business Actions

1. Design new penetration strategy targeting on younger couples and families
2. Embark on one-on-one retention marketing with affluent Male Age 18-25
3. Design new engagement model to grow the "Road Warriors" and "Gadget Addicts" needs-based segment

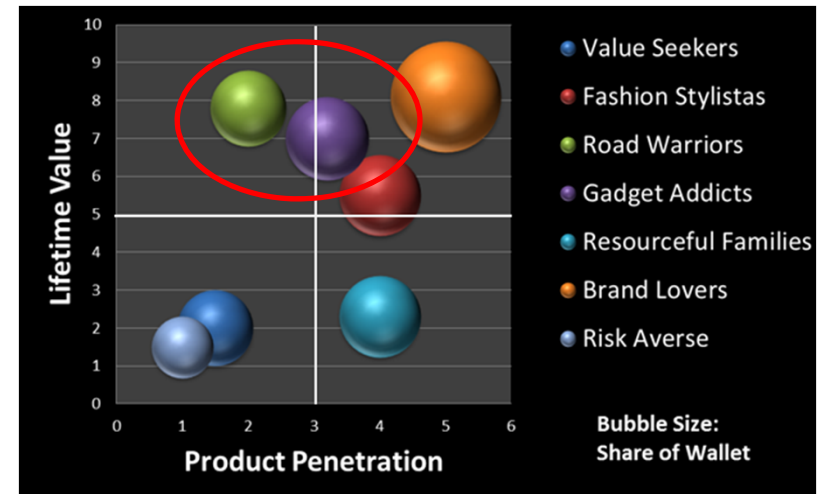
## Campaign and Channel Response Model



Dimensions	Age	18-25 Years	25-40 Years	40-60 Years	60+ Years
Campaign Response Score	0-48	8	13	13	7
	\$100,000-\$250,000				
48-60	\$250,000+	3	2	1	1
	\$100,000-\$250,000	5	12	12	6
60-71	\$250,000+	2	1	1	1
	\$100,000-\$250,000	3	6	17	11
71+	\$250,000+	1	2	1	1
	\$100,000-\$250,000	4	8	4	7
	\$250,000+	1	1	2	1

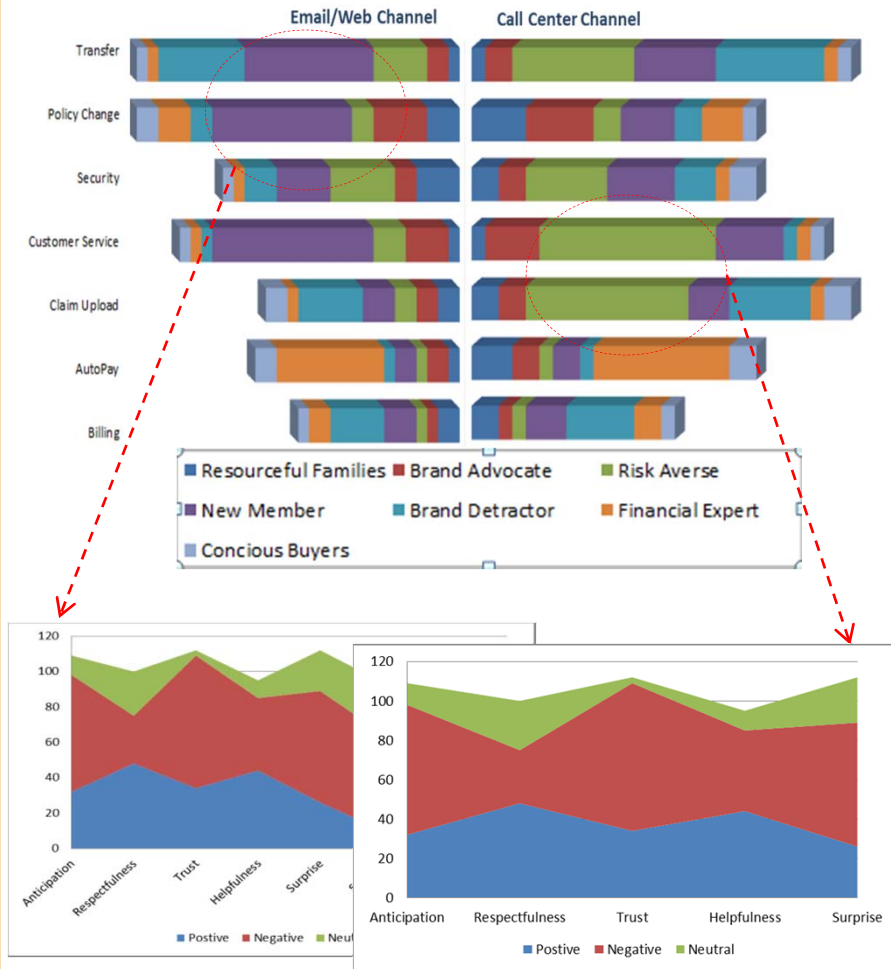
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## CLTV and Customer Benefit Analysis



# Example of Analytics Themes for Customer Relation

## 1. Text and Topic Mining



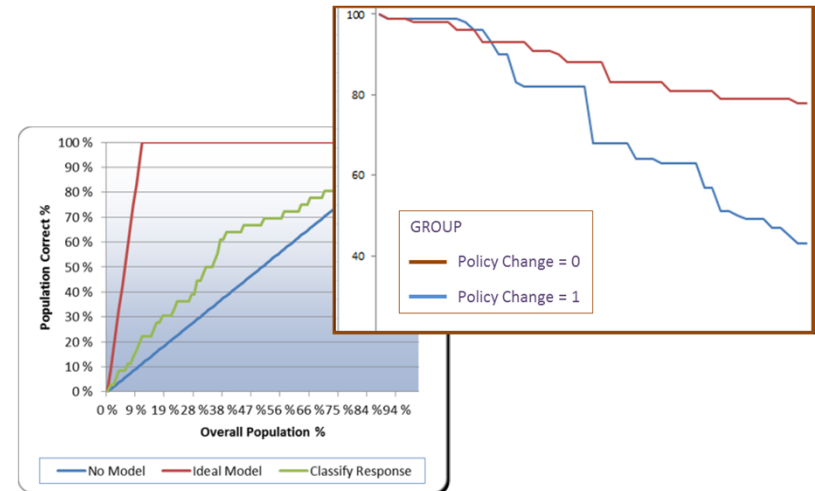
## 2. Channel Sentiment

What I Think !

How I Feel !!



What I will Do !!!



## 3. Predict the Profit Impact with Topic and Emotion Score



# Need to Convert Analytics Themes to Business Actions



## Key Questions to Ask when Identifying Analytics Themes !!

Do I have the right business sponsors who are accountable for the measurements and change management?

What are the impacts of analytics themes to business processes?

Which analytics themes can deliver quick value to business?

# Summary

- **Common operational and organizational challenges**
- **Infrastructure Readiness**
  - Perform preliminary self assessment to identify short and long-term infrastructure gaps
- **Jump starting analytics initiative**
  - Three Key Steps: Define persona-based measures, prioritize value and determine analytics roadmap
  - Align analytics efforts to identified business priorities
- **Considerations when scaling an initiative**
  - Organizational design will need to be re-assessed with growth
- **Review of analytic methodologies**
  - Identify analytic themes with business sponsor and questions
  - Realign analytics themes across business personas
  - Themes are the catalyst to drive business question to specific actions

# Q & A



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<http://www.infosys.com/ks>

## Questions from the audience

- **Q1. How you evaluate and communicate ROI to justify your business case before you start your customer analytics initiatives.**
  - We evaluate the ROI in three phases – short term (< 6 month), medium term (6-12 month) and long term (12-18 month). During analytics value discovery (slide #17), while working with business sponsors to evaluate business opportunity areas, we also perform bottom-up assessment to understand the characteristics of existing data sources, tools available, and complexity of analytics we can provide. At the same time, we analyze the risk of implementation with business ops in those opportunity areas. For example, we identified product recommendation a great opportunity area, and the analytics capability required is mature in the organization. But while we assessed the risk of insight implementation, we decided to prioritize ROI by channels – starting from online ecommerce (< 6 month), and then evolve to e-mail/direct mail campaigns (12 month), affiliate channels, etc.
- **Q2. Any suggestions on the good ways to clean out an unorganized CRM database?**

First, you'll need to understand where the bad data is coming from and then fix the source. Otherwise if you clean the database you'll just clutter it up again over time. Second, depending on the size of the database and budget available I see two options: manually clean it using existing tools or hire a vendor who specializes in data quality management to do the work and identify source system irregularities.

## Questions from the audience

- **Q3. What is "IYA"?**

IYA = Index Yea Ago. It represents changes from last year.

- **Q4. Marketing analytics clearly have costs associated with them: people, hardware/software systems. Can you give us some ROI examples of investment in analytics leading to increased revenue/profit? Also Why is Revenue and Share two different things.**

One US-based insurance firm invested in cross-channel behavior analytics to detect patterns that lead to new subscriber attrition. It reduces new subscriber churn rate from 21% to 15% in first year after implementation. Share measures the competitiveness in the market including market potential, penetration index and competition impacts.

- **Q5. How does this campaign optimization model match up with product development which typically has a much longer development cycle?**

There are several opportunities in product development. In our case we started from special focus area that we can measure outcomes easily and quickly. For example, we measure inquiry and awareness as surrogate metrics during trial in test markets. We then build models to project volumes based on historical data in similar markets, product features, mix of media, etc.

## Questions from the audience

- **Q6. How easily do you feel this framework translates to the B2B realm?**

There are some potential areas of leverage but at Kodak the B2B and B2C initiatives are separate due to different maturities of each effort and sets of data. Further, the complexity of the underlying B2B data poses a different set of challenges that don't exist within the B2C space. Why might there be leverage? I can see potential opportunity to leverage the analytics team to execute both B2B and B2C queries but they are likely going to be querying against two distinct sets of data.

- **Q7. How is your analytics organization structured? Is it centralized with resources allocated to departments and business units or fragmented into those areas? Did it change over time?**

At Kodak the analytics group has definitely evolved and will continue to over time. We initially had the vision of building a decentralized reporting model by deploying a web based BI tool. The feedback we got was, despite the training, that it's too complicated or I don't have enough time or what is my role and responsibility when it comes to using the information? As a result of these challenges we decided to change our approach and centralize the reporting and analytics responsibility with the worldwide CRM team. The current team consists of five team members both on-shore and off-shore and we support all product groups, regions, business units, etc. We had started discussing the possibility of aligning by channel, region, or product group but have not yet. The main challenge is not producing insights but finding a champion within the business to own and apply.

## Questions from the audience

- **Q8. You seem to use terms "consumer insights" and "customer insights" - how do you differentiate between the two and do you differentiate the source of the source data based on these definitions?**

Yes we do. Customer insights refer to those who have transacted in the past at Kodak. Consumer insights are much broader including prospects. You can derive customer insights from transaction behavior. For consumer insights, in many cases we rely on 3rd party list.

- **Q9. Can you clarify what you mean by "analytics theme"**

Analytics theme is an independent analysis task that you can apply the outcome directly to business action and success can be measured. For example, we do not consider "sentiment analysis" is a theme since the outcome does not connect to business actions. We do have an analytics theme – customer inactivity analysis; where we apply sentiment analysis to predict sentiment impact to customer inactivity. Based on the analytics maturity, at Kodak we started from basic theme e.g. RFM analysis, and evolved it to more sophisticated themes e.g. channel interaction model, customer benefit analysis, etc.

## Questions from the audience

- **Q10. Are you able to share your organization structure? The analytics team is growing and I am trying to build a vision for what it should look like.**

I would share one if it existed but essentially the team reports into the worldwide CRM group and from there flows into the Chief Marketing Officer. Depending on how your organization is aligned and where the strategy and planning happens I see this as your best opportunity to proactively influence the decisions based on the analytic insights. I'm not saying there isn't opportunity to affect the go-to-market strategy but, in my experience, that is far more reactive and there isn't much time to conduct analyses to develop insights. The lead time for a campaign is usually pretty short and area of focus is constantly changing which can be challenge.

- **Q11. We are a small (\$1m annual marketing budget) organization and are very interested in looking at the ROI of our ad campaigns. Is there a good one-on-one trainer or seminar or conference that can help us determine the best way to do this?**

Not sure of what type of ad campaigns you are doing and I'm not expert in mass ad measurement. One of the reasons Kodak is moving away from traditional mass ad is because it is more difficult to measure impression to conversion.



## Questions from the audience

- **Q12. How did you weight the benefit of the new value add in other words the business case value to cost**

In our case we weight in short-term benefit (< 6 month) as an important criteria. The cost includes analytics investment and the cost due to change management in implementing insights. For example, we start our analytics investment in optimizing product cross-sell for existing customers on the web across three categories. The scope is controlled by focusing only on the web channel where company can implement insights faster. Besides we can accurately attribute the results to analytics investment. Once we show the success, we extend this analytics investment to acquire prospects using e-mail campaigns and other channels.