



PUTTING IT *ALL* TOGETHER
HOW TO INTEGRATE OPERATIONAL DATA
WITH YOUR
CUSTOMER EXPERIENCE MEASUREMENT PROGRAM

A KWI WHITE PAPER

BY

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ABSTRACT

This white paper is designed for the customer service executive intent on creating a comprehensive view of the customer experience. The kind of view that allows the enterprise to take targeted and focused action on improving that experience.

The problem with current CEM Programs is that they neglect everything your company already knows about the customer. By focusing on just what the customer's say, you are able to drive only limited and often misdirected action. But data integration across multiple systems with different requirements and availability has historically been difficult and expensive.

In this white paper we establish a framework on which you can build an effective data integration strategy. We start with a discussion of the importance of Customer Advocacy and measuring the customer's experience because having a clear vision is imperative to any project. Especially one that has the possibility to be complex and expensive. We then lay out best practices for project management, apply them to data integration for a CEM program, discuss the importance of sharing data across the enterprise, not just into the CEM program, and wind up with a discussion of how the non-IT executive can work with the IT-executive to their mutual benefit. Throughout, we pepper the theory with practical advice and case studies from our own experience.

One final note, this paper is just one in a series of four covering the overall implementation of an actionable Customer Experience Measurement program.



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THE VALUE OF CUSTOMER ADVOCACY

While the definition of a customer advocate has been widely and rightly debated, the value of this individual or company to your firm is unquestionable: More revenue at a lower cost.

Your company earns revenue from both new customers and existing customers. The cost of acquiring a new customer compared to retaining an existing customer has been widely publicized. Not only do existing customers buy the same products and services from you, they are an excellent opportunity sell additional products and services (both cross-sales and up-sales), and resource for highly qualified referrals.

The first advantage of the customer advocate is that she is much more likely to do all three (in some cases, more than five times more likely). The second advantage is that the customer advocate will make these purchases and referrals with much less effort and investment on your part. Not only does the customer advocate increase your top line, she decreases your costs to get there. The third major advantage of the customer advocate is that she is an invaluable source of ideas for new product and service innovation ... allowing you to both keep her as a customer and make in-roads on your competitors' customer bases.

In other words, high levels of customer advocacy drive high levels of growth and profitability.

One of the reasons the definition of customer advocacy is so widely debated is that industries, business, and product lines vary so widely. For some firms, a robust Loyalty Index with a dozens of independent variables is an appropriate measure of customer advocacy. Others need no more than five or six variables for the same appraisal. Still others suffice with a single quantifiable gauge (like the Net Promoter score¹).

What matters is less the measure and more the assessment: Did the customer find her experience with your company valuable?

You earn a customer's advocacy by providing a product and/or service which provides her with significant value ... the customer must benefit in some way from her interaction with your company. Further, what you provide and/or how you provide it must be substantially different



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than others who offer a similar experience. If not, you have been commoditized and you will end up competing on price and price alone.

$$\text{Customer's Value Perception} = \frac{\text{Performance} + \text{Quality}}{\text{Price} + \text{Cost of Ownership}}$$

The third driver of perceived value is you must provide the customer experience at a cost which does not outweigh the benefit to the customer². It is true that the more benefit you provide the customer (in terms of the performance and quality of the experience), the more she will be willing to pay. But you cannot allow that ratio to become too small ... otherwise you are ripe for attack from competitors and you will wind up competing on price alone.

Finally, you must be able to provide the beneficial experience not only at a price the customer finds attractive but for a cost which allows your firm to make a reasonable profit. Otherwise you do a disservice to your customers because you won't be around long enough for them to truly benefit.

Of all the talk in this whitepaper about customer advocacy, remember that the ultimate aim is to improve corporate performance. Generally, that means the most-common measure of corporate success: Profitability.

While profitability is used across the board to judge a company, it is an historical measure. To be able to look to the future, you have to consider how your company is performing today along three cascading criteria³:

- To attain your corporate vision, you have to first achieve reasonable and appropriate profitability;
- To achieve that profitability, you have to provide value to your customers;
- To provide value to your customers, you have to be smarter and better than your competitors about the products and services you deliver as well as the manner in which you deliver them (including technology, policies, processes, and personnel).





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Customer Advocacy drives profitability. But it is only one link in the chain of achieving your firm's vision and strategy.



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CUSTOMER EXPERIENCE MEASUREMENT

Once you understand the value of the customer advocate to your firm, you will quickly embrace the importance of measuring the customer's experience with the products and services your company provides. If you want to improve customer advocacy, you have to manage it. And to manage it, you have to measure both customer advocacy and the factors that drive customer advocacy: The customer's experience.

As a result, you need your Customer Experience Measurement (CEM) Program to be proactive and forward-looking. Then and only then will you have a strong and accurate predictor of future financial success.

The only way to get there is for the CEM program to be:

- Comprehensive
- Valid
- Reliable
- Quantified
- Aligned with corporate strategy

COMPREHENSIVE

A **comprehensive CEM Program** is one that encompasses all aspects of the customer relationship with your company. It touches the highest level of referrability and intent to renew. It includes the middle level of satisfaction with specific products and services and benchmarking against competitors. And it includes the day-to-day contact between the customer and your organization. This final point must include not just contact with sales and service but invoicing, payment, website, IVR systems, advertising ... everything that the





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customer perceives as the face of your firm.

A comprehensive CEM Program includes more than feedback from your customers ... it includes the things you already know about the customer. Your company owns dozens of IT systems with terabytes of data. By including the pertinent bits from these systems in your analysis of the customer feedback, you are able to understand better what the customer is saying. In addition, you are able to target your action for improving the customer experience in a more-focused and direct manner. More importantly, you are able to invest your resources on improving the experience for the more important customers first.



Finally, a comprehensive CEM Program requires perhaps the most important dimension of all: The employee's ideas and opinions. Your front-line knowledge workers are better suited than anyone to help interpret customer feedback. Your front-line knowledge workers are better suited than anyone to know what works within your company ... and what doesn't. And your front-line knowledge workers are the ones who will have to implement any action that you identify as a result of your CEM Program. Soliciting their input upfront ensures that the program has an excellent chance of success (please see the KWI white paper *Driving Action from your CEM Program*).

Your CEM program will be broad and deep, both across and into your organization. Most midsize firms require a minimum of 18 months to fully implement an enterprise CEM Program. By selecting programs that have immediate impact on the customer and the company's financials, you will be able to demonstrate value and drive adoption. Most firms begin with either a relationship survey or a transactional satisfaction survey for a single customer interaction point (call center or web self-service). However, many firms are in a competitive situation such that it is imperative to understand the dynamics and value of the service or product that they provide. Your own firm is unique and your CEM Program will be unique as well.

VALIDITY AND RELIABILITY

The only thing worse than not having a Customer Experience Management program is having one that produces data on which you cannot take action with confidence. This means that the



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data you produce must be both valid and reliable. This is the only way you will have the confidence to invest time, resources, and money on action plans to improve customer advocacy.

Data validity means that the data you produce is accurate and correct. It means that the questionnaires follow standard best-practices for market research, including requirements clarity, respondent burden, and timeliness of the study. It means that the operational data is clean, accurate, and appropriately linked to customer data. Valid data requires that the respondent sampling process produces a sample set that provides an acceptably high range of confidence.

Data reliability means that the data you produce answers the questions you are asking. It means that respondents interpret the questionnaire the same way you do ... and the same way other respondents do. This means you must use language which is clear, unambiguous, and appropriate to the respondent. Reliability means the operational data you include in your analysis is timely and pertinent.

In order to ensure that your CEM Program is both valid and reliable, you need to include appropriate resources in the design and analysis. A qualified research professional can translate the business requirements and ensure that the survey instruments are designed to meet them. A research professional will also help to with the analysis of the data and provide guidance that you can act with confidence. A software engineer experienced in integrating data from a variety of disparate systems, can ensure that your DI strategy is timely, efficient, and accurate. A business analyst can ensure that the actions you take will have the most positive impact on the right customer segments ... in support of your company's vision and strategy.

One final note on validity and reliability: Unless you have 100% participation from every customer and every employee, you will be extrapolating your results to one level or another. This is common practice and should not minimize the value of your CEM Program as long as you include the assumptions and risks in your analysis and subsequent decision to take action. For more information, see the KWI white paper *Basics of Statistical Sampling for Customer Service Executives*.



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QUANTIFIED

Assigning a number to customer advocacy is implicit in the term *Customer Experience Measurement*. In order to be effective, this number must be accurate, as described in the previous sections. But it must also be clear. Every member of your organization, including partners, suppliers, and customers, must understand what you mean when you say “customer advocacy”. A common language means that the setting of and review of goals and objectives can be done without ambiguity.

Many organizations have embraced the simple calculus of the Net Promoter score as a strategy for addressing the issue of clarity. While that is an effective tool and the Net Promoter systems has been proven to be fairly usable, it is not appropriate across all industries and market segments. In those situations, you must be prepared to invest time in an education and awareness program among employees at all levels of your organization. Only by explaining (sometimes over and over) in a concise and consistent manner what you are measuring will you secure the necessary buy-in and believability to drive action.

ALIGNED WITH CORPORATE STRATEGY

The eventual aim of your CEM Program is to help drive action across the service organization ... and the enterprise. To that end, your CEM Program must be aligned with the direction your company is heading.

The best way to think of this is that your CEM program is a tool – not an ends in and of itself. As a tool, it must provide value to the people and teams who use it. This means that your CEM Program must help you do your job better at a cost that supports reasonable and appropriate profitability.

Only by aligning the goals of the program with corporate strategy will you positively impact the organization. At the front end – you will need to demonstrate this support in order to garner funding for your CEM program. At the back end, demonstrating the success of your CEM program will require demonstrating its impact on the company ... and you will not have a lot of eyes if the value you are demonstrating is not of importance.



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One note of warning: Be prepared to shift the focus of your CEM program as corporate strategy changes. This happens more and more frequently as the level of competition and commoditization increases and inflexibility is a key reason for CEM program failure.

This paper focuses on one aspect of the requirement that an actionable CEM Program be comprehensive: Integrating operational data with the feedback from customers and employees. The next section endeavors to explain why such data integration is not always easy.

Case Study:

Client: Consumer focused software company, with a pure digital sales and service strategy. Over 50,000 customers worldwide.

Project: Relationship survey distributed quarterly to 25% of the customer population. Survey instrument designed in 10 languages with a goal to increase revenue 10% from existing customers over the previous year.

Q1 Report: Included a report to each sales representative of Advocates in their region along with other standard reports and graphs.

Two months later, checked in as part of preparations for the Q2 launch: Not one sales person had executed against the plan. The reason: The data had no value for them:

- On average, 30% of a list had had their warranty expire by the time the sales person contacted the customer – it's hard to sell something a customer has already decided she can do without.
- The customer population was weighted toward the bottom of the stack of products (individual) compared to the top (corporations and agencies) ... so the lists were packed with customers who neither wanted nor needed expensive upgrades

The change: included a number of additional fields from the sales and accounting systems, including the product purchased and warranty expiration date.

The results:

- 82% sales participation (18% who did not use the list did not make quota)
- Warranty renewal increased from 35% to 70% over the previous year
- 22% increase in revenue from existing customers over the same quarter the previous year (annual, settled around 18%).



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THE TROUBLE WITH DATA INTEGRATION

The facts are troubling:

- 85% of DI projects are behind schedule, over budget, or both⁴;
- Almost 50% of effort in a DI Project is ensuring that the data are valid and reliable⁵;
- Ineffectual DI is the #2 reason for cancelled or abandoned CEM Programs⁵;
- More than 60% of engineering professionals listed DI projects as the most-likely to fail from a list of typical software project types⁴.

Clearly, DI projects have a bad reputation and a history of poor performance. While the reasons vary from project to project and company to company, there are six general causes:

Every project is different: This means that there are no out-of-the-box solutions which will work every time with minimal effort ... no matter what the vendors say. It also means that solutions which purport to require no engineering skills will not work ... no matter what the vendors say.

You need multiple tiers of expertise: In order to effectively implement a DI program, you need to include the skills and background of a number of different people, from a number of different roles. Typical CEM Program DI teams include: Business analyst, technical analyst, Portal / UI expert, application expert, and customer representative. Pulling together and managing that type of team isn't easy and isn't a core competency many organizations possess.

Different end-user requirements: There are many diverse needs and skill sets among the employees, partners, and even customers who will be accessing and using the information generated from your CEM program. The ability to cater to all of these requirements is vital to the program's impact on your business. If you are unable to do so, then the program will become restricted to the few who do find it useful and overall impact will be limited.

Various DI strategies and technologies: As we discuss later in this paper, there are a number of different strategies and technologies for integrating data between two or more systems. We will argue that the ability to leverage the most effective and appropriate DI strategy is an important



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aspect to securely and quickly launching your CEM Program. That being said, many vendors and IT professionals select a DI tool and then stick with it. This is fine until your IT team has a different preferred strategy than your CRM vendor ... which is different still from the survey tool provider's. This contributes to longer schedules, higher budgets, and more finger-pointing when things go wrong.

Data Silos: The explosion of software applications better filling more niches has led to more and more data silos in even the least technical of companies. This is an important development because it allows knowledge workers to be more productive. It is a problem, however, when data you need is hidden away behind a wall of technology, politics, and too few resources.

Data Quality and Reliability: As a corollary to the proliferation of data silos across the modern firm, the quality and reliability of data degrades. This has two implications. The first is that data you need may be unreliable. The second is that you may not be able to access the data you need, no matter how reliable, because the key or connecting data (customer number or email address, for example) is inconsistent and, therefore, unreliable.

All of this is not to say that data integration projects are guaranteed to fail, be perversely expensive, or have minimal impact on your CEM program. As we will see throughout this white paper, an effectively managed DI project is the difference between impacting or dragging on your firm. But first you must be able to clearly explain what you are attempting to accomplish. Clear and even motivational explanation will secure the necessary buy-in from the executive sponsor, department managers, CSRs, and customers.

The next section of this whitepaper lays out the foundation for successfully making this pitch.



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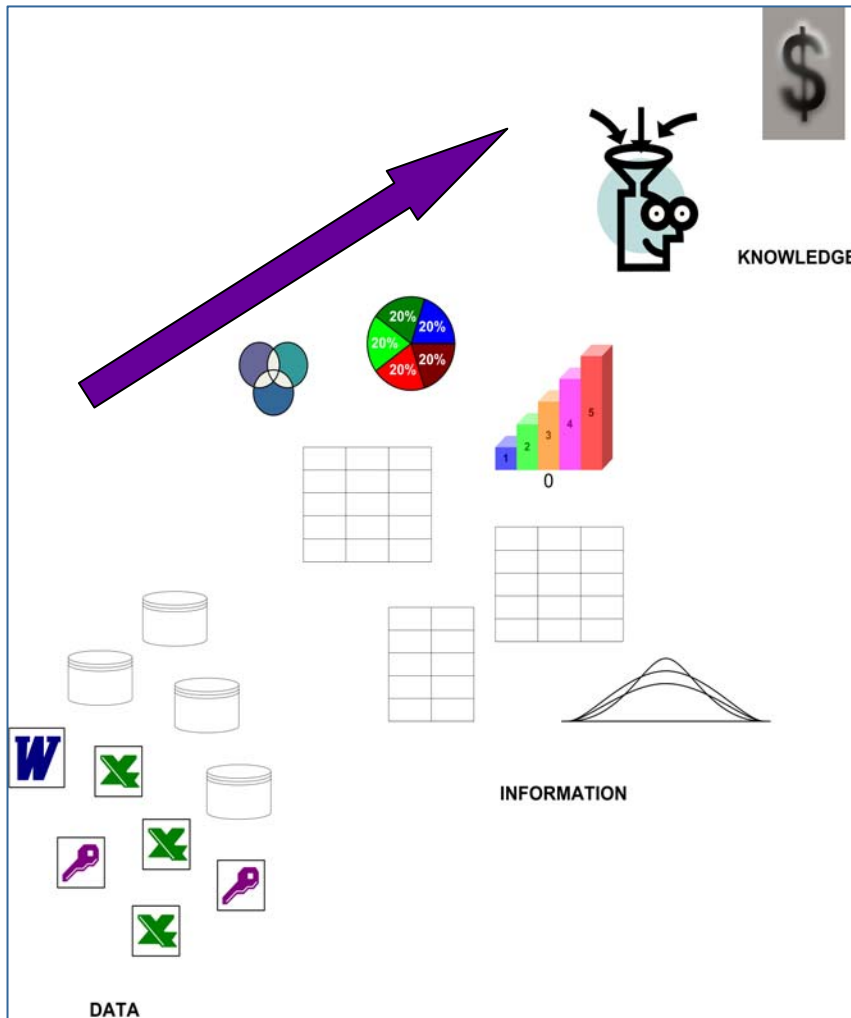
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MANAGING THE DATA INTEGRATION PROCESS

DATA TO KNOWLEDGE

The goal of your CEM program is to drive action across the enterprise. This means following the purple arrow in the graphic below from data to information to knowledge and, eventually,

positive impact on corporate performance.



Data: Are raw, unprocessed facts, figures, and records. A client's email address is data. A client's warranty renewal data is data. The number of clients in a given market is data. Data exists in databases, applications, spreadsheets, even standard documents.

Information: Is gained when you translate data into an understandable form. This includes tables, charts, and graphs. More esoteric displays of data, like maps, blueprints, and schematics, are also helpful and becoming more prevalent with the rise of computing power.

Knowledge: Knowledge is what you earn when you transform information into insight and understanding. Knowledge is created by an individual who



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applies her experience, skills, and intuition to a set of information in order to reach a defined goal. Knowledge is a customer service agent solving the client's real problem ... not just the reason she gave for the call. Knowledge is the sales person who closes the deal by speaking directly to the decision-maker's need. Knowledge is the vice president who implements a customer retention strategy by re-packaging the service offering ... and charging more for it.

Moving from data to information to knowledge requires three things. The first is a clearly stated and agreed-to goal: The improvement of corporate performance.

The second is a thorough understanding of the intricacies and interrelationships between the people, process, and technology that will get you there. There is no pure-technology success for DI (despite what the vendors say). Part of the CRM debacle of the late 90s was that companies and vendors alike forgot about people and process. People interpret the information and data contained in the technology. Processes manage the transfer knowledge between teams and departments. These three elements must work together to deliver a high-quality solution.



The third requirement to successfully create knowledge in your firm are the skills and aptitudes to successfully manage the project. The implementation of successful DI regimen is, after all, a project and as such, it can be achieved by implementing the proven tactics of project management. Most of the following techniques will work for any project, from planning your vacation to remodeling a house to highly complex and mission critical business ventures, like your CEM program:

PROJECT MANAGEMENT BEST PRACTICES

Clear, concise, achievable mission: Knowing what you are to accomplish is fundamental to achieving anything in life and DI projects are no different. By making the mission clear and unambiguous, you ensure that there is no opportunity for disagreement or misinterpretation. This is vital for both team-members and those with peripheral or support roles. The reality is that politics and competing priorities will play a part in shepherding your DI project from launch to completion. By having the ability to point to a short and understandable mission statement, you can readjust the team's focus with minimal effort and time lost.



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There is no hard and fast rule about what makes a good mission statement. While one sentence is generally better than five, we have seen page-long mission statements that were necessary and appropriate. What matters most is that the language chosen be crystal clear, fully agreed to by the team, and the executive sponsor.

Cross-functional team with the skills and authority to execute against the mission: As organizations have learned since the early 1980s, the “cross-functional team” is an excellent tool for tackling the important and complex issues which face your business. As the business, technical, and market environment becomes more and more complex, your employees become more and more specialized in terms of both skills and experience. By its nature, however, a DI project requires different and diverse skills:

- **DI technical expertise:** Understanding the intricacies of shifting and matching data between systems without risking reliability and validity
- **Legacy system expertise:** Understanding the structure and availability of the legacy systems
- **Reporting and User-interface expertise:** Understanding the best practices in presenting data and information to various levels of users (front-line, supervisory, managerial, and executive)
- **Business process expertise:** Understanding how your company processes information between departments, teams, and systems
- **End-user expertise:** Understanding the needs and requirements of the knowledge workers who will be using the information to create knowledge
- **Customer expertise:** Understanding the profiles and types of customers who will be affected by the changes to the business process.

And of course, this team must be led by an individual or individuals skilled in managing diverse teams to tight timelines and within budget.

Successfully manage the scope, schedule and budget: There are three legs on which your DI project will stand: How much you have to do, how fast you have to do it, and how many resources you can expend in doing it. As more than one project manager has learned too late, only one of these three variables can be held fixed. This is called the project driver. The other variables will have to flex to meet the demands of the project driver.



For example, a DI project that requires integration from three different systems into the CEM Program may take three months and cost \$75,000. If, on the other hand, your budget tops out at \$35,000 or you must have the DI complete in six weeks, then you may only complete the DI with one system.

Such trade-offs are not easy decisions to make. We have been involved in more than one heated planning session at which the competing needs and conflicting priorities from different departments were painfully apparent. From that experience, we can point with confidence to the benefits of having a good team and a good mission statement for both resolving the conflict and pointing the team toward the best solution for the firm.

Never compromise on quality: Inside the triangle above (as it is inside the People-Process-Technology triangle), is the word “quality”. In both instances, “quality” means delivering what the end-user expects. If, as in the example above, you have to shrink the project’s scope from 3 systems to 1 system to meet budget or timeline constraints, then you had better make sure that the end user’s understand the tradeoff and are expecting data from just the one system.

More importantly, you had better make sure that the data you pull in from the one system is the most-critical data. You can always go and get more budget or release another version in the future. But only if the end-users find value in what you have already delivered. And that only happens when you solve their most-critical problems.

As with the definition of a good mission statement, there is no simple rule of thumb for deciding which problems are the more critical. It could be a question of driving income, decreasing costs, increasing speed, or a combination of all three. As with everything else, the key is to come to agreement and then execute against that agreement.



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Evolve the project over time: The process of delivering smaller, valuable sub-projects within the overall project is called evolutionary project management. By breaking the project into smaller sub-projects, you will:

- Deliver the most-critical elements to end-users quickly;
- Be able to test new technologies and ideas with minimal risk;
- Be able to leverage new technologies and ideas that work with minimal time;
- Ensure stakeholder buy-in; and
- Provide demonstrable ROI sooner.

One common example of this is who uses the information from a transactional satisfaction survey. The Customer Service organization will use it for performance measurement and management, coaching, and demonstrating impact to others in- and outside the company the company. But who else could use the fused attitudinal and behavioral data? Product development to get a sense of not only which problems are the most frequently reported but which take the longest to resolve? Or cause the most emotional distress to the customer? What about Sales to identify and prioritize new opportunities or protect against being side-swapped about a customer's dissatisfaction when making the next sales call or asking for a referral? What about Marketing to identify customer profiles and develop highly personalized marketing campaigns? And wouldn't the Executive Team like to see the information included in their corporate scorecard portal?

To create a DI regimen, which touches on all these departments and aspects will require a minimum of six systems and, in all likelihood, at least two different DI strategies and protocols. The roadmap for such a program in its entirety would be nine – twelve months and involve hundreds of internal hours of effort in addition to your investment with vendors.

That's a hard sell.

On the other hand, if your first phase includes what you need in Customer Service and just one of the other internal customers, then you have a much smaller problem to solve. That makes it



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more likely you will solve the problem correctly, on-time, and within budget. It is also more likely you will solve the problem before changes to your business and market force a shift in focus and all too often the abandonment of CEM programs. Once you have solved problem for the Executive Team or Marketing, you have a better story to tell and a partner in advocating for the expansion of the CEM program to help impact the rest of the enterprise.

The most important step in evolutionary project management occurs at the end of each sub-project or phase: The review and realignment. The review component is much more than the standard “project report” or “post-mortem” as used by most companies, in which a summary of the project is prepared, distributed, and forgotten. The project review is a dynamic and multi-layered process in which you answer the following questions:

- What did we expect to happen?
- What happened?
- What caused the difference between our expectations and actuality?
- What do we improve going forward?
- What do we sustain going forward?

Once you have completely reviewed the project and identified your strengths and weaknesses for moving forward, you will realign your team’s goals with the current state of your business. The reason is that the world can change in the six – eight weeks often required for a DI project of medium complexity. Acquisitions can be announced, new competitors or pricing can be impacting the market, corporate realignments can be completed. As a result you must ensure that you answer the following questions:

- What is the company’s current position and mission?
- Is the DI Project’s overall mission still the same?
- What is the most-critical next phase?



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Many times you will find that the original order of tasks and sub-projects has shifted with the ever-shifting marketplace. It is critical that you choose to consciously keep your DI Project team aligned with corporate strategy. That way you continue to have a positive impact and ensure that you are spending dollars and resources effectively.

Be flexible: By including the likelihood of change in your project management planning, you are a step ahead of your competitors ... or at least not falling behind. The reality is that business changes today on an almost-daily basis and you must be willing to change with it or anticipation of it.

But flexibility in tactics and techniques is equally important. If a new technology does not pan out in Phase I, you have to scrub it for future phases. If an important team member is pulled for a competing project in the middle of a phase, you have to be able to adapt to bringing in a new team member and bring her up to speed quickly. If an across-the-board budget cut shrinks your resources by 30%, you have to be able to juggle deliverables and deliver the most-critical elements first.

Communicate: Across the board, communication is the key difference between a project that succeeds and a project that fails. Communication within the team, communication with stakeholders, communication with the executive sponsor, communication with end-users. All are vital for obvious reasons.

What is sometimes less apparent is what constitutes good communication:

- **Unambiguous:** Communication that pointedly leaves out jargon, acronyms, and flowery language. Leave no room for misinterpretation, intentional or not.
- **Regular:** Communication that is provided on a consistent basis. This may be daily at some points in the project but no less-frequent than twice monthly.
- **Acknowledged:** Communication without ensuring the other party has received the message is quite risky. Some teams require physical sign-off on all meeting notes as well as critical design and change request documents.



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- Across all levels: As stated above: *Communication within the team, communication with stakeholders, communication with the executive sponsor, communication with end-users.*

Rolling these strategies into a plan for your data integration project will not be automatic and will not be easy. An experienced project manager, preferably with some quality program certification will make the process much easier.

DATA INTEGRATION PROJECT PROCESS

Regardless of the details, your DI Project will consist of five major tasks to be executed within each phase of the overall project:

1. Identify and prioritize the required data:

The first question to answer is: What data is needed to augment your Customer Experience Measurement Program? Remember that your goal is to fuse customer feedback with this operational data in order to create a comprehensive and actionable understanding of your customer's experience.

There are two sides to the data you will need. The first is what data is required for the customer to be invited to participate in the survey. This will depend on the experience you are measuring and the mode of feedback you have chosen. If you are sending an email invitation to a web-based survey after a service call is complete, at a minimum you will need the customer's email address. If you are performing a telephone-interview, then you will need the customer's phone number, name, and some indication of which timezone she is in. If you are implementing a pop-up web survey, you may not need anything specific about the customer.

The second side to the data you will need is for reporting and analysis. What information will improve your ability to interpret the results, drive action, and improve the customer's experience? A short and incomplete list of common elements includes:



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Customer:

- Name
- Email Address
- Phone number
- Language
- Opt-out status
- etc

Experience:

- Date / time
- Reason
- Agent
- Hold time
- Call time
- Resolution
- etc

Company:

- Customer value
- Customer expire / renewal date
- Account manager
- Product or service
- Customer profile
- Last marketing campaign
- etc

Once you have identified the data elements you need, you must prioritize them in terms of criticality. Different organizations and even different projects will have different measurement systems for importance but all can be generally broken into three groups: *Must have, should have, and could have.*

A *must have* data element is one without which the program cannot be launched. Customer name and number are good examples. It is important that you resist the temptation to make too many elements *must have* requirements. This is a common compromise strategy with new DI project teams and will lead to trouble down the road when you have to draw the line at which elements are excluded from the current phase.



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Case Study

One important thing to remember is that different members of your team will have different needs and therefore categorize a data element's significance differently. For one client, we had performed a simple vote using the Nominal Group Technique to reach consensus about which elements were critical. *Customer Email* and *Call Reason* came up clear winners but there was a tie between *Product Name* and *Product Serial Number*.

	Supervisor	Service Agent	Field Agent	Vote
Email	1	1	1	3
Prod Name	6	2	5	13
Prod Serial #	5	6	2	13
Call Reason	2	3	4	9
Agent ID	4	4	6	14
Agent Name	3	5	3	11

The challenge was that these two items were used in two different systems and the team was striving to minimize the number of systems involved in the initial phase of the project.

However, by understanding that Field Agents needed the serial number whereas Service Agents used the product name, the team quickly agreed that both elements would be critical for the success of the project



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2. Identify and categorize the systems involved:

Understanding the criticality of the data elements is the first step in categorizing the legacy systems involved. A system with 7 must have elements will obviously be of higher criticality than a system with zero. But the data to be extracted from the legacy system is only part of the battle. Additional considerations include:

- Who owns the system? Are there resources available for your DI Project who are familiar with the technical structure of the system? Business structure of the system?
How available is the system? Are there conflicting priorities? Is the executive sponsor of the system invested in the DI Project?
What is the level of complexity surrounding any DI pull from the system?

Case Study

When scheduling your DI project, data elements with a must-have criticality, high availability, and low complexity are the obvious first choices. In this modified example from a client, Phase 1 includes the data from the CRM system because of the high availability and the fact that it met the minimum requirements for launching the survey.

Additional must-have elements were moved to later phases in part because of the need for political and budgetary leverage. By demonstrating the value of the program early and inexpensively, we were able to make the DI Project a high enough priority in future phases to overcome additional hurdles:

Table with 7 columns: Data Element, System, Sys Owner, Criticality, Availability, Complexity, Phase Sched. Rows include ID, Name, Email, # Incidents, Account Mgr, Product, Revenue, and Renewal.



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3. Audit data across the systems:

Data validity and reliability will be the biggest issue in terms of resources and schedule for your DI project. In this case, an audit includes not just identifying potential problems but creating a plan to manage the problems.

At the simplest level, the audit will reveal data incongruencies. Things like: The customer's Account Number is different in the CRM system and the Accounting system. In this example, the question you are trying to answer is: How do we match customer information from the CRM system with billing amounts, renewal dates, predicted lifetime value, and other financial data? Is there a secondary field in the CRM system? Do we need a look-up table for existing data? What if we could replace the account number in either system and make a new company standard?

All of these, no matter how far fetched, are legitimate options. The one that works for you will depend on the data that is incongruent, the systems involved, the scope of any potential resolution, and so on. The point is to identify the problem as early as possible, when it is least expensive to fix it for the entire company.

The bigger problem is when data is actually not valid, reliable, or available. In this instance, the ideal solution is to fix the data at the source, either by deleting or correcting it. The reality is that the problem of dirty data may only be a problem for you and not for the system owner. You will often have to include logic during the data transfer to test for and exclude bad data. Common examples of this include customer-entered data (email address off a web-form, address from a warranty registration card) or training data that was never purged from the system before go-live.

You also have to be aware of how data is stored in different systems. The format can cause compatibility problems, whether it is HTML, Unicode, ASCII, or others. This is especially true for systems that pull data in a variety of languages.

4. Review data transfer options:

There are a number of data transfer options available to you and there is no "best" one. The option you choose will depend on the following requirements:



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- **Timeliness requirements.** If, for example, the data to transfer must be received by the other system in near realtime, then you would lean toward a web services call or HTTPS via SSL instead of batch FTP. An example of this would be information about a service transaction that is used to trigger an email invitation to the customer. If, on the other hand, you are implementing a telephone interview survey for a customer relationship survey, then an automated or even manual batch transfer may be sufficient.
- **Security.** The more sensitive your data, the more concerned with security you have to be. And in today's world, even the customer's email address should be treated with an eye toward privacy. If your DI program is all internal, then your existing corporate security policy should be consulted and implemented. If, however, you will be sharing some data with a vendor and receiving data from a vendor, then you should be prepared to ensure that the vendor's security capability meets your requirements as well as industry best practices.

Standard security enabling tools include: Secure HTTP, Secured Socket Layer, and Pretty Good Privacy protocols.

- **Comprehensiveness of data.** Large amounts of source data will be better distributed via batch FTP or transfer via XML than just a few items, which can be managed by a HTTPS call. A frequent compromise solution is to use a realtime call to trigger the survey so that the customer can participate immediately after the service transaction and then complement customer data via periodic uploads of broader customer and company information. The realtime call will include such things as customer contact information and minimal call information in order to personalize the survey experience. The daily batch upload would include more detailed customer information in order to provide for the broad and detailed analysis necessary for an effective CEM program.
- **System compatibility.** Your DI program will in part be a prisoner of the systems involved. Very few CAD and IVR systems will have the ability to directly send a web call to a third party system, for example. In that instance, you will have to do a direct



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table-to-table integration with the phone system and your CRM system or agent desktop and then provide the information to the survey tool.

- Skills and experience. There is nothing that will guarantee success of your DI program like using a tool that you have had success with in the past. While your IT department will rightly look to implement new technologies, if that is the plan for your DI project, make sure to allow for sufficient time in your schedule for an appropriate learning curve and to recover in the event the new technology does not pan out as expected. This is a very common cause to software project failures and one that will be even more likely if your survey vendor is also implementing the new technology for the first time.

5. Implement the DI Program:

Effective management of an engineering project is outside the scope of this white paper. Your internal IT staff should have a set of policies, processes, procedures, and best practices for guiding the details of an engineering project. In addition, your vendors should have comparable and compatible tools for ensuring the project is completed on-time and within budget.

As a general rule, as long as these software project management policies adhere to the seven guidelines outlined above for successful project management, you will be successful.

The specific steps you will go through for each engineering phase of the DI project will include:

- Design, build, and test
- Implementation and rollout
- Maintenance and support
- Review and realign



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One common pitfall in CEM DI projects is insufficient input from end-users during the early stages of engineering. Specifically design and preliminary testing. By involving end user's you will have a better chance at catching anomalies to your workflow ... they deal with them every day.

You should also be careful to provide enough time for testing and changes based on testing. No matter how careful you are in the design phase, there will always be some modifications and then retesting. The trick is to plan for that in your schedule and budget.

Finally, be absolutely certain that you are evolving your CEM program in small, manageable chunks that allow you to demonstrate the overall value and focus on the most-critical elements first. Meeting those critical needs is what will drive success.



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DATA INTEGRATION IS A TWO-WAY STREET

Case Study

A high-end electronics manufacturer was performing a semi-annual product and service value assessment with its dealers (exclusive distribution chain for new products, although the firm had a consumer-based replacement part website). In addition to the formal report which provided a list of key loyalty drivers by dealer profile, advocacy breakdown, strengths and weaknesses trended over time, and so on, the firm wanted to push key data back to their Sales Automation tool:

- Top three features the dealer believed differentiated the product from other manufacturers
- Dealer's advocacy level
- Any free text comments

The reasons were simple: The sales team was not interested in learning a new software application to review survey reporting ... they needed it integrated with how they currently work.

Because of the batch nature of the survey program, we were able to perform data integration manually at a very low cost. The bigger expense was customizing the sales automation tool but once that was complete, the program was easy and inexpensive to maintain.

As a result, more than 95% of account managers indicated 10 out of 10 that the program:

- Made their job easier
- Made them more productive
- Contributed to their ability to close deals

In addition, the marketing team was able to pull this data from the sales automation tool along with purchase patterns and additional demographic data and prepare a campaign based on very targeted customer profiles.

The case study above is rare in the ease with which the firm was able to modify its sales automation tool. However, that flexibility is becoming more and more prevalent among SFA and CRM software programs for exactly this reason: Your company needs to work the way it works, not the way your software vendor thinks it should work.

By providing CEM data back to the people and teams who can use it, you spread the value of the program from the service organization across the entire firm.



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ENTERPRISE WIDE IMPACT

Another requirement for spreading the impact of your CEM Program across the enterprise is to work with your internal IT department. Not only will they be involved in the data integration project (both to and from the survey system), they probably have projects which will benefit by including your CEM data. Data warehousing, business intelligence, and corporate reporting initiatives are all on the IT team's plate and they should all include your customer's experience.

Your IT counterpart is under pressure to do more, with less, in a constantly shifting environment⁶:

- More than 60% of non-IT executives consider IT a “roadblock”;
- IT budgets are shrinking as a percentage of overall corporate budgets;
- The pace of technology change is increasing;
- The pressure to lower costs through outsourcing, including offshore outsourcing, is changing the nature and make-up of the IT department.

While the specifics are different, your IT counterpart is no different than you are!

If you can approach IT with this in mind, you will more- easily negotiate a solution for your CEM DI project which benefits the entire company. To do so, the standards of negotiation apply:

1. Understand what you need. It helps if you have a command of the technologies involved but at a minimum you must be able to clearly state the business requirements of the DI Program. If you don't know the difference between XML and PGP or SQL and .NET, take a little time to educate yourself or bring along a resource who can help.
2. Understand what IT needs. By being familiar with the IT team's projects, schedules, and resources, you will be able to talk with them on their terms. The other dimension to this is to be able to provide as complete a picture as possible. The more detail you



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can provide, the easier it will be for IT to make an estimate for the project and the less likely the project will get stalled in the up-front analysis phase.

3. Understand how the project benefits both of you. It's easy to explain why the CEM program benefits the service organization but you should be able to explain the benefits to the IT department as well.
4. Understand how the project benefits the company.

Case Study

For an annual Employee Relationship Survey, we needed a dozen fields from the HRMS, which had been installed and taken live about three months before the Employee survey kicked off. When we met with the IT group and explained the need, we received a quote for six weeks and an internal charge of \$20,000 to pull the data in a one-time batch!

What was really happening was that the HRMS system was new and the IT group had not completed the training on the HRMS system's proprietary, ad-hoc report writing utility. In addition, delays in the HRMS rollout had caused IT to be late on starting two additional projects which were vital to the company's growth plan (one for Sales and one for Marketing).

By framing the problem in terms of what IT needed, we were able to come up with a solution that benefited all players:

- IT needed to not lose momentum on its other projects by shifting resources in the middle
- IT needed a familiar tool for extracting data from the HRMS
- The project benefited IT because the Employee survey was a corporate mandate
- The project benefited IT because they would be able to extract data from the HRMS system for future requests quickly and easily in the future

Our solution was decided upon after a quick call to the HRMS vendor to confirm that the system was based on a standard SQL data base:

- Four hours of a database engineer's time reviewing the HRMS system provided a high-level schematic of the table structure of the HRMS system. From that, it was a simple matter of writing a few queries to pull the fields needed for the Employee Relationship Study.
- The IT group had a tool for accessing data from the HRMS in the future with familiar tools
- In addition, the process uncovered training data that had been left in the live system and was skewing some company reports around compensation and training. IT and HR were able to clean up this oversight quickly.



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NEXT STEPS

Data Integration is one step in the process of implementing an actionable CEM program. You will perform this process for each element of the CEM program: Transaction service satisfaction systems, rolling relationship surveys, periodic product and service value assessments. All customer feedback initiatives require operational data to be effective. And all customer feedback initiatives will drive more action further across your enterprise when the knowledge gained is pushed to other systems.

Please review KWI's additional whitepapers and educational offerings on creating an actionable CEM program by visiting our website: <http://www.knowledge-wave.com>.



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ABOUT KNOWLEDGE WAVE INTERNATIONAL

Knowledge Wave International was founded in 1999 by industry professionals with expertise in customer service, statistical research, and building and maintaining mission-critical information technology.

Our vision is to provide industry leading Customer Experience Management systems built on state-of-the-art technology, incorporating data from across the enterprise. We do this through a combination of our proprietary technology, best practices in data integration and project management, and superior methodology consulting.

We are a privately held firm headquartered in Lake Oswego, Oregon, and have worked with more than 100 firms of all types and sizes to implement actionable, business intelligence solutions.



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