Transformation at Bank of America: An Enterprise Systems Analysis

by

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Abstract

The focus of Bank of America's change management initiatives has shifted away from acquiring and integrating new businesses, a process it calls transition, and towards internal enterprise transformation through a process the Bank calls transformation. One significant change management initiative currently underway is the California Northwest (CANW) transformation. The focus of the CANW initiative is to transfer the Bank's retail banking platform and accounts in California, Idaho, and Washington to the Model banking platform that it maintains across the rest of its enterprise. This thesis, using the California Northwest transformation as a case study, is an enterprise systems evaluation of change management practices at Bank of America.

MIT Lean Advancement Initiative (LAI)'s Enterprise Strategic Analysis and Transformation (ESAT) methodology is used as a framework to evaluate the consideration of CANW stakeholders and the alignment of their needs with the CANW goals, processes, metrics, and strategic objectives. INCOSE's framework for writing quality system requirements is further applied to the California Northwest transformation goals. The result of this systems analysis is that while the set of strategic objectives is complete, additional processes, stakeholder values, and metrics need to be identified or developed. Although the set of CANW strategic objectives / goals is complete and all key objectives appear to have been included, the wording of individual goals needs to be clarified and the change management team must review each goal to ensure that it is both necessary and attainable.

The second element of the research looks towards change management practices as a whole at Bank of America to identify whether BAC's transformation process is complete and effective. The study reveals that Bank of America should take a stakeholder centric view and consider the needs of all stakeholders to gain "buy-in" from all parties so as to create an "all hands on deck" environment for transformation initiatives. Other recommended actions include announcing change initiatives publically when possible, back-checking of actions by all parties, maintaining a single message, and adopting a standardization vs. transformation mindset.

Thesis Supervisor: Deborah J. Nightingale
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1. Introduction

1.1. Motivation

My interest in this project arises out of a professional aspiration for a career in enterprise systems integration and post merger integration. I entered the System Design & Management (SDM) Program at MIT, a joint program between the Sloan School of Management and the School of Engineering to facilitate such a career. Prior to MIT, I worked for four years in the financial industry, most recently as Director of Operations at a boutique hedge fund launched by a former Director of Kmart Holding Corporation. The opportunity to work on a thesis on enterprise transformation and one that is sponsored by Bank of America Corporation, allows me to pursue this career interest while building upon my finance background.

Bank of America's interest in sponsoring this project originates from its historic focus on acquiring and integrating businesses through a process called transition and its current focus on streamlining internal systems and increasing operating efficiency through its transformation process (Skvoretz, September 21, 2010). Over the past seven years Bank of America has acquired and integrated half a dozen companies (Bank of America Corp., How Change Has Evolved, p. 3). Change management is therefore a significant operations focus of the Bank and one that it is seeking to constantly enhance and improve. In sponsoring this research, Bank of America is interested in an outsider's perspective or an "outside view" of its enterprise change management practices. The Bank seeks insight into elements of its change process that it might not have considered as well as confirmation of inefficient aspects of its change management process that it is aware of but wishes to reaffirm with an outside view.

1.2. Background on Problem

Financial institutions across the world have faced a tremulous past decade. From the dot-com bubble to the mid-decade boom years to the burst of the housing bubble and the collapse of financial markets in 2008, every institution has been effected and forced to change its practices on some level. It is this environment that offers an exemplary platform from which to study and evaluate change management practices in the financial industry.

In the United States, the FDIC reports that the institutions it insures have combined total assets of $13.4 trillion as of September 30, 2010 (FDIC, 2010). A Boston Consulting Group study reports that in 2009, the total world-wide value of "professionally managed assets" was $52.6 trillion (The Boston Consulting Group, 2010). With such wealth, the success of commercial banks, hedge funds, investment banks, and other similar institutions has a profound impact on the global economy. Therefore, quality operations, process efficiency, and the operational stability of these financial institutions is critical not only for their own success but also for the stability of the world economy.

One such financial institution with a profound global reach is Bank of America Corporation (BAC). BAC's scope and size lends itself to operating in all corners of the financial industry from consumer retail banking to mortgage services to investment banking. Bank of America's Mid-Year 2010 Investor Fact Book reports that the Bank is ranked third by net income with $6.3 billion and second by market capitalization with $144 billion of all U.S. banks (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 5). According to its 2009 Annual Report, as of the end of 2009, Bank of America served 59 million consumers and small businesses and held deposits of $419.6 billion. In terms of operations, BAC has offices in 32 states, the District of Columbia, and in over 40 countries (Bank of America Corp., Mid Year Investor Fact Book, 2010, p. 2) (Bank of America Corp., Annual Report, 2010, p. 40). Further, as of June 30, 2010 Bank of America reported an employee count of over 280,000 (Bank of America Corp., Mid Year Investor Fact Book, 2010, p. 6). With over six thousand banking centers, more than 18 thousand ATMs, and approximately 30 million online banking users, BAC's influence cannot be overstated (Bank of America Corp., Annual Report, 2010, p. 40).

Bank of America also offers itself as a unique case-study. Rather than growing organically, Bank of America as it exists today is the result of numerous acquisitions. In the last 10 years alone, Bank of America has acquired half a dozen major banking and financial institutions. Acquisitions include Fleet, MBNA, US Trust, LaSalle, Countrywide, and Merrill Lynch (Bank of America Corp., How Change Has Evolved, p. 3).

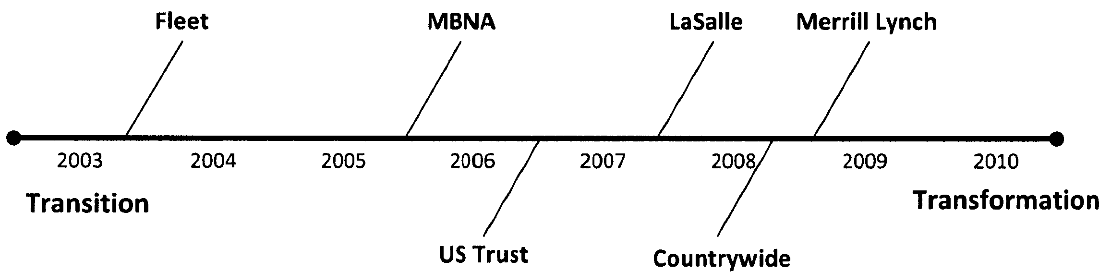


Figure 1 - Acquisition and Transition at Bank of America
Source: Adapted from Bank of America Corp., How Change Has Evolved, p. 3

When looking at these acquisitions, the question "how were the acquired businesses integrated into Bank of America?" emerges. Specific to this, additional questions include "What is the integration process that Bank of America uses?" and "How effective is this process?"

As Jonathan Skvoretz, a Senior Vice President and Change Management Executive at Bank of America suggested, after having built such a massive enterprise, one must look back and ask "do all the pieces properly fit together?", "Did we do a good job?", and is the approach we took "the best we can do?" (Skvoretz, September 8, 2010).

Many ways exist to answer this question. One could look at existing enterprise metrics. Benchmarking a completed and integrated acquisition against the initially projected cost savings is another approach. Another avenue worth exploring is to compare the integrated enterprise state with the initially defined future state.

I instead argue that the change management process used at Bank of America is best evaluated from a systems perspective. System tools, methods, and frameworks can be used to analyze Bank of America's change management processes and procedures. In addition, stakeholder analysis is also beneficial for evaluating Bank of America's enterprise transformation process.

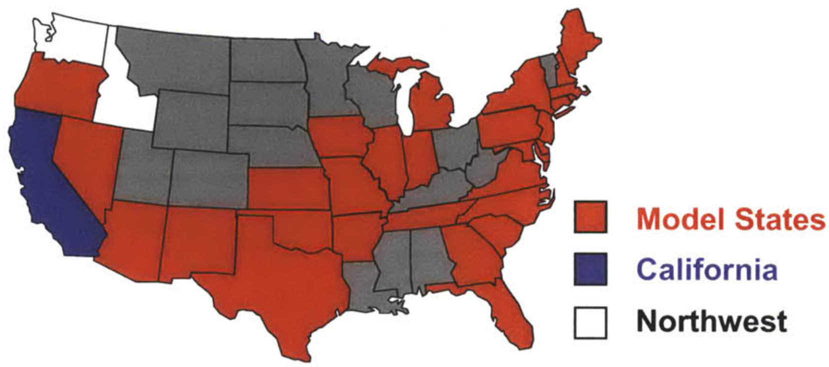


Figure 2 - Bank of America Nationwide Map
Source: Executive Framework Review, 2010, p. 4

The question then becomes where to start and where specifically to draw the system boundary of the enterprise to analyze. One specific area to analyze is Bank of America's California Northwest (CANW) region, consisting of the states of California, Idaho, and Washington, which provides for an excellent case to evaluate BAC's change management processes and practices. These three states which combined serve 11.9 million customers exist as they are today as a result of the merger between NationsBank and Bank of America in 1998 (Gerringer, 2010, p. 2) (McKinney, 2010). While during the merger, the region was integrated with the rest of the retail banking platform, many key back office systems were not and remain as a legacy retail platform. Consequently, the banking platform and services and features offered in California, Idaho, and Washington are not equal to the Model retail banking platform and services offered across the rest of the states where Bank of America operates.

The global regulatory climate following the collapse of financial markets in 2008 has increased the operational risk for Bank of America to exist as a single corporate entity with multiple separate banking systems and platforms. At the height of the financial crisis, banks and financial institutions across the nation were undergoing stress tests to assess their capitalization relative to government requirements. As described to me by Jonathan Skvoretz, Bank of America found the exercise particularly challenging and had to devote additional resources as a result of the variety of systems that it uses to store financial data and the complexity of those systems. This illustrates an operational challenge of managing multiple banking systems and platforms (Skvoretz, February 8, 2011).

As reported by the Associated Press, Bank of America's online banking services were down for an undisclosed number of customers for over 10 hours during a single day in January. The problem was not a one-time incident as the article goes on to state that BAC's online banking services were also unavailable to customers for a few of hours in

August of 2010 and that a year earlier there was a similar occurrence (The Associated Press, 2011).

Senior executives at Bank of America made the decision to transform the legacy California Northwest retail banking platform to equal that of the rest of Bank of America's Model banking platform. To integrate CANW, the transformation team is applying the transition process it has used for integrating previous acquisitions to this initiative, which the Bank refers to as transformation. The question I have been asked to answer is whether the transition process is truly applicable to transformation and suitable to use for the California Northwest transformation. Further, I will be answering the question of whether, when the transition process is applied to CANW do gaps emerge that need to be identified and closed.

While the transformation is fundamentally focused on merging retail banking IT platforms, I will not only seek to evaluate the IT component but will also look beyond IT to assess the needs and values of all stakeholders, and all processes, goals, and metrics extending across the entire value chain. My analysis will not focus on a single element of the transformation but I will instead seek to evaluate the transformation from a holistic enterprise systems view. As Professor Deborah Nightingale and Jayakanth Srinivasan state in their book, *Beyond the Lean Revolution*, "Adopting a holistic approach make the impacts of various components of the enterprise on the enterprise as a whole more visible and thus more manageable (Nightingale and Srinivasan, 2010, p. 12)." Further, they go on to state that "Our experience shows that almost always, in the end, it [why transformation efforts fail] is because of the absence of a holistic view of the enterprise at the beginning of the process (Nightingale and Srinivasan, 2010, p. 21)."

1.3. Disclaimer

I completed this project over the course of seven months from late September 2010 through mid-April 2011. The California Northwest transformation in contrast is a multi-year endeavor, which at the time of this report remains ongoing. Consequently, in conducting my research I only had access to a limited set of documents on and executives involved with the transformation. Many key aspects of the transformation are not yet complete including the full set of metrics used to track the progress of the initiative (Davis, December 2010). To be able to fully review all the transformation material and sit in on all CANW transformation meetings and conference calls is a multi-year endeavor that is simply beyond the scope of this project. Consequently, my research, analysis, and conclusions are based on the limited set of documents and interviews with change management executives that I had access to over the course of this project.

2. Overview of Approach

2.1. Research Methodology

In conducting my research of enterprise transformation at Bank of America, I focused on and used the California Northwest transformation as a case study and proxy for transformation initiatives as a whole at Bank of America. This particular ongoing change initiative was recommended to me by Jonathan Skvoretz, the executive sponsor of this project (Skvoretz, September 8, 2010). The primary source of research consisted of both interviews and document review. In terms of documents, I had access to and made extensive use of the California Northwest transformation assessment documents in addition to publicly available documents including SEC filings, investor material, and press releases. As part of this project I also had the opportunity to interview senior executives and associates working on the California Northwest transformation. In particular, I interviewed Tracie Davis, an SVP and Senior Change Consultant, Karen McKinney, an SVP and Change Management Executive, Bryan McNeill, a VP and Senior Change Manager, and Jonathan Skvoretz an SVP and Change Management Executive. However, as I discuss above, I only had access to a limited set of California Northwest documents and executives. Further, at the time of this report, the transformation is still ongoing and not all aspects of the initiative are complete, such as the set of metrics used to track progress towards the initiative's strategic objectives. Therefore, my research, conclusions, and recommendations are based on the material I reviewed and executives I had access to.

In conducting my research into the goals, metrics, processes, and needs of key stakeholders, I reviewed the CANW assessment material for these transformation attributes, either directly stated or implied. After condensing the accumulated data into lists of 20 key metrics, goals, processes, and stakeholder values, I reviewed my findings with executives involved in the CANW transformation. Applying INCOSE's framework for writing quality system requirements, I assessed the clarity and necessity of the CANW goals. To conduct a stakeholder analysis, I applied MIT Lean Advancement Initiative's ESAT methodology to the stakeholders identified by the CANW change management team. Finally, the ESAT X-Matrix tool enabled me to assess alignment of the California Northwest goals, metrics, processes, and stakeholder values, resulting in my recommending that BAC consider additional metrics, processes, stakeholder values, and goals.

2.2. ESAT Summary

The Enterprise Strategic Analysis and Transformation (ESAT) methodology was developed over a ten year period by the Massachusetts Institute of Technology's Lean Advancement Initiative (LAI) (MIT Lean Advancement Initiative, 2011). To solidify and ensure the robustness of the methodology, LAI received support from and tested the framework with numerous government agencies and private sector companies. Such organizations included the United States Air Force, The Boeing Company, Lockheed Martin, and Raytheon (Nightingale, Stanke, and Bryan, 2008, p. 3). ESAT was specifically created to provide a framework for undertaking enterprise improvement and transformation initiatives. The framework takes a holistic view of the entire enterprise, specifically focusing on end-to-end value streams and enterprise-wide processes including all supporting processes. ESAT places a heavy emphasis on stakeholder analysis by identifying and considering all stakeholders and their needs (Nightingale, Stanke, and Bryan, 2008, p. 6-7).

0. Leadership Engagement
1. Define the Enterprise
2. Collect Data
3. Construct Current State Perspectives
4. Identify Enterprise Opportunities
5. Describe Future State Vision
6. Create Transformation Plans
7. Create Actionable Projects
8. Create Deployment Plan

Figure 3 - ESAT Transformation Roadmap
Source: Nightingale, Stanke, and Bryan, 2008, p. 15, 17-19

The ESAT Transformation Roadmap, which appears above in Figure 3, when completed reveals areas of an enterprise that a transformation team is able to improve or streamline through the elimination of enterprise waste. Upon successful completion of the transformation roadmap, the ESAT methodology results in an enterprise transformation plan that the executive change management team can subsequently implement (Nightingale, Stanke, and Bryan, 2008, p. 8, 9, 15, 17-19).

2.3. Transition vs. Transformation

Bank of America's historic focus on transition and current focus on transformation initiatives provides for an insightful comparison of these two types of change management initiatives.

Transition		Transformation
– Integration of an acquired business	≠	– Internal system conversion & enterprise improvement
– An "all hands on deck" mentality exists across the Bank	≠	– No significant transformation mandate appears to exist
– Stockholder and public awareness is significant	≠	– Limited awareness by stockholders and the public
– Verbal commitment to investors on synergy cost savings from a specific transition	≠	– Investors informed of intended outcome from aggregate transformation initiatives
– Hard stop date and defined budget	≠	– No specific completion date and set budget
– Transition process used	=	– Transition process used

Figure 4 - Transition vs. Transformation

Source: Skvoretz, September - November 2010; BAC Discussion, 2011

At Bank of America transition is the integration of an acquired business while transformation is an internal focus on system conversion and enterprise improvement. In this regard, the nature of having a specific deadline and defined budget that comes with a transition initiative results in an "all hands on deck" mandate across the entire Bank. In contrast, for a transformation initiative no such mandate exists as there is no hard deadline by which the transformation must be completed. Typically when Bank of America acquires and integrates a business through its transition process, the Bank issues a public announcement resulting in significant stockholder and public awareness. In contrast, for transformation, while there may be general announcement regarding the overall focus of enterprise change at Bank of America, no specific announcement was made regarding the California Northwest transformation (King, 2011). As part of the public announcement associated with a transition initiative, senior executives make a verbal commitment to investors as to the cost savings that will result from the combined businesses. However, with transformation initiatives, as there is no specific public announcement, executives do not make a public commitment to stockholders regarding the outcome of a given transformation. In spite of these differences, Bank of America uses the same fundamental change management process for transformation that it uses for transition (Skvoretz, September - November 2010).

2.4. Bank of America Transformation vs. ESAT

While the ESAT methodology and Bank of America's transformation process are very similar in nature, substantial differences do exist. Table 1 below provides an overview of the similarities and differences.

Table 1 - ESAT vs. BAC CANW Transformation

ESAT		BAC Transformation
• Considers all stakeholders and their needs	≠	• Limited focus on selection of few key stakeholders to drive benefits
• Focus on end to end value stream mapping and waste elimination	≠	• Focus on individual tasks and projects
• Future state vision unknown upon commencement	≠	• Target environment is known at the start of the transformation
• Holistic enterprise view - value stream and supporting processes	=	• Considers all processes (primary and supporting)
• "Develop exit strategy for each project proposed"	=	• Significant consideration of when to turn over a project to BAU
• Strong focus on use of metrics to track enterprise performance	≠	• Metrics used to track transformation progress

Source: Nightingale, Stanke, and Bryan, 2008, p. 10-11, 17-19, 30

2.4.1. BAC vs. ESAT: Value Stream Mapping

A key ESAT component is "identifying the value stream" and eliminating waste that exists in the value stream (Nightingale, Stanke, and Bryan, 2008, p. 10-11). In contrast, while transformation timelines are established and a series of tasks and a specific completion order is defined, as far as I have been able to ascertain, value stream mapping is not a material component of BAC's transformation process. Focus is maintained on individual tasks and procedures instead of on a comprehensive end to end value stream analysis. Such, at least for the California Northwest transformation, is perhaps due to the nature of the transformation. As suggested by a fellow student, Major Sean Dorey, the CANW transformation is closer to that of a standardization rather than a traditional transformation initiative (Dorey, 2010). The goal is to equate the CANW retail banking platform to the rest of Bank of America's Model platform. To this extent, no need exists to understand the end to end value streams in CANW so as to be able to eliminate waste because the goal is essentially to make "A" look like "B" without regard for the efficiency of "B".

Now one could argue that when making "A" look like "B" the executive team in charge should seek to improve "B". While this might be a valid argument when adding new features to "B", spending time and resources to concurrently improve "B" overall is beyond the scope of the transformation goals, is cost and time prohibitive, and potentially fraught with unacceptable risks. When looking at transformation initiatives that are not standardizations but are rather initiatives that seek to improve efficiency and streamline processes, then evaluating the end to end value stream and identifying sources of waste is a beneficial ESAT approach that should be utilized.

At the same time, both ESAT's value stream analysis and BAC's transformation process consider all elements of an enterprise, not just the primary value stream but also supporting processes. As stated in the Enterprise Strategic Analysis and Transformation (ESAT) Guide, "It [an enterprise value stream] must encompass not only product life cycle processes, but also support and leadership/executive processes (Nightingale, Stanke, and Bryan, 2008, p. 11)." BAC's transformation process views supporting processes as critical transformation elements to consider.

2.4.2. BAC vs. ESAT: Project Completion

An area where both the ESAT methodology and BAC's transformation process are in alignment is that of exit strategies. A subtask of ESAT Step 7, Create Actionable Projects, is "Develop exit strategy for each project proposed (Nightingale, Stanke, and Bryan, 2008, p. 19)." While this is a critical element of BAC's transformation process, BAC struggles with the issue of how to know when a transformation project is finished or when the completed work is "good enough". For transformation processes or projects, BAC has to determine when the project should no longer be considered part of the transformation and instead be handed off to business as usual teams to become part of BAC's normal day to day operation. While I have neither investigated nor focused on this issue to a significant extent, having clear and well understood metrics at the start of a transformation initiative, as asked by Jonathan Skvoretz, is indeed critical (Skvoretz, February 10, 2011).

2.4.3. BAC vs. ESAT: Metrics

Both BAC's transformation process and the ESAT methodology rely heavily on the use of metrics to assess an enterprise's ability to meet the stated strategic objectives. According to the ESAT Guide, "There should be a few (no more than a dozen) metrics that are reported on a frequent basis and are used to manage the enterprise... the few key metrics that measure enterprise performance towards the strategic objectives (Nightingale, Stanke, and Bryan, 2008, p. 30)." Differences however exist as to the nature of ESAT metrics vs. those metrics that BAC uses for its CANW transformation. According to the ESAT Guide, "The metrics may measure efficiency or effectiveness (or both) of enterprise processes, they may also track stakeholder values like customer satisfaction or employee involvement (Nightingale, Stanke, and Bryan, 2008, p. 30)." This implies that suitable metrics might include banking system uptime / downtime, quarterly earnings, operating costs, employee / associate satisfaction, etc. Such metrics focus on and measure the day-to-day operation of an enterprise or in the case of a BAC transformation, the end state of such an initiative. However, these are not the metrics by which BAC measures the progress of its CANW transformation.

The metrics used in the CANW transformation are not day-to-day operating metrics but rather focus on the transformation itself such as number of accounts converted, new debit cards issued, etc. The structure of these metrics is suitable for transformation initiatives which are effectively standardizations (Dorey, 2010). Here, measuring progress indicators such as the number of accounts converted is appropriate as the goal is to make CANW equal to the rest of BAC's network. The transformation team is not focused on improving the efficiency of the Bank's operations and processes. As stated before, the end goal is to make "A" look like "B" and metrics that measure progress towards that goal are appropriate. However, for transformation initiatives where the goal is to remove waste from the enterprise, improve efficiency, and streamline processes and procedures, such task focused metrics are not suitable. Measuring the number of IT systems updated is not an appropriate metric by which to determine whether the Bank's deposit processing time has decreased or whether customer satisfaction is higher. Consequently, in such cases where the overall goal of a transformation initiative is process improvement, the metrics used must be end-state metrics such as associate account processing time and customer satisfaction rather than task / process focused metrics.

Nevertheless, solely focusing on transformation process / task metrics for transformations that are effectively standardizations has its limitations and those limitations must be recognized. For example, a metric that measures accounts converted might indicate that 100% of all customer accounts were converted and that all necessary new credit cards were issued. However, the metric alone does not indicate that during the transformation system downtime was three days, which is catastrophic. The process-based metric therefore misleadingly indicates that the task was successful. In another example, the transformation team might have just finished issuing all new debit cards as determined by the metric "number of debit cards issued". However, if each card took three weeks to ship then the metric in itself is misleading. Consequently, the process or task-based metrics Bank of America uses during a transformation must be implemented in conjunction with or paired with metrics that track enterprise performance on a day-to-day basis.

2.4.4. BAC vs. ESAT: Order of Tasks

A final noteworthy difference between ESAT and BAC's transformation process deals with the order of tasks. The ESAT methodology consists of nine steps (note the first step is listed as step 0) of which step 4 is "Identify Enterprise Opportunities" and step 5 is "Describe Future State Vision" (Nightingale, Stanke, and Bryan, 2008, p. 17-19). In contrast, for the process that BAC uses for its CANW transformation, the future state is already known at the start of the transformation. Further, the executives involved already have a clear understanding of the opportunities that will be gained as a result of the transformation. While the future state is known before a standardization-type initiative commences, I am somewhat skeptical as to the extent to which the opportunities that exist as a result of the CANW transformation are known prior to commencement of the initiative. As stated, the purpose of the transformation is to decrease operational risk. However, I have not seen any material that presents an analysis of or discusses how much of a decrease in operational risk is expected. Further, aside from anecdotal comments that were made, I have not come across any information specifying that undertaking the CANW transformation will result in a greater decrease in operational risk than that which will result from a different transformation initiative.

Overall however, for a transformation initiative that acts as a standardization knowing and being able to describe the future state at the start of a transformation is valid so long as an analysis has already been conducted that clearly defines the benefits. When making "A" look like "B", "B", which is the future state, is already known. In contrast, for transformation initiatives where the goal is enterprise improvement, streamlining processes, or seeking greater efficiency, defining the future state should never be the first step. Rather, executive teams must first progress through the other necessary ESAT steps including collecting data (ESAT Step 2: Collect Data) and identifying the specific areas where there are opportunities for enterprise improvement (ESAT Step 4: Identify Enterprise Opportunities) (Nightingale, Stanke, and Bryan, 2008, p. 17-18). One should not start off developing processes and metrics to track a project's performance without first understanding where areas for improvement exist. Reaching the end conclusion must not be the first step without first, as specified by the ESAT methodology, understanding how the enterprise goals relate to stakeholder values, relate to enterprise processes and identifying areas for improvement (Nightingale, Stanke, and Bryan, 2008, p. 47-48).

3. Enterprise Overview

3.1. Bank of America Enterprise Overview

Before analyzing Bank of America's transformation process, the enterprise must be defined. Properly defining the enterprise is critical to focus the scope of the analysis, properly understand the stakeholders and elements that comprise the enterprise, and identify and characterize the interactions within and across the enterprise system boundary. As Professor Crawley, the Ford Professor of Engineering and Professor of Engineering Systems at MIT states, "The [system] boundary is vital... because it defines what you architect, eventually deliver and are responsible for" and "What is "fixed" or "constrained" at the boundaries" (Crawley, January 2009, p. 31).

At the highest level, the enterprise is Bank of America Corporation (BAC), a public company, which as reported by Fortune Magazine, is listed in fifth place on the Fortune 500 list in 2010 (CNN Money). BAC reports in its Company Overview that it is "one of the world's largest financial institutions" and that it has operations in over 40 countries. Further, the Bank reports that it serves 57 million consumers and small business clients (Bank of America Corp., Company Overview). As reported in Bank of America's 2009 annual report, Bank of America has some form of relationship with approximately 98% of the Fortune 1,000 companies (Bank of America Corp., Annual Report, 2010, p. 3). To fully illustrate the importance, scope, and influence the Bank has on the population of the United States, Bank of America reports that one in two U.S. households utilize one or more bank services, which range from savings and checking accounts to credit cards to mortgages (Bank of America Corp., Annual Report, 2010, p. 5). Further, Bank of America's physical footprint is of such a large scale that 80% of the U.S. population has access to the Bank's retail services, according to its 2009 Annual Report (Bank of America Corp., Annual Report, 2010, p. 5).

From a systems perspective, one could view the Bank's customers and clients as stakeholders that exist external to the enterprise system boundary. Bank of America decomposes its clients as stakeholders in two separate ways. As discussed in its Investor Fact Book, the Bank decomposes clients into (1) consumers, (2) high net-worth individuals, (2) small to medium sized businesses, (3) larger corporations, (4) governments, and (5) institutions. Further, according to the same source, BAC also decomposes its clients into three groups (1) people, (2) businesses, and (3) institutional investors (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2).

3.2. Competition

Viewing Bank of America alone as an enterprise is not sufficient. Rather, the Bank must also be viewed as part of the system in which it operates. One such approach is to examine the Bank's competitive position. Bank of America's main competitors include such financial institutions in the United States as JPMorgan Chase, Citigroup, Wells Fargo, Goldman Sachs, and Morgan Stanley. Operating in a highly competitive industry, principal types of competing firms and companies include other banks, thrifts, standalone and subsidiary investment banks and brokerage firms, mutual funds, credit card issuing firms, and other such financial institutions (Bank of America Corp., Form 10-K, 2009, p. 1). According to its 2010 Investor Fact Book, Bank of America's market position in the United States is third by net income with $6.3 billion, first by assets with $2.4 billion, and second by market capitalization of $144 billion by the end of Q2 2010 (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2,5).

Regarding competitive points, Bank of America, as it discusses in its 2009 10K filing with the Securities and Exchange Commission (SEC), competes on customer service, quality, products, price, and interest rates offered to consumers (Bank of America Corp., Form 10-K, 2009, p. 1). Another critical competitive element of the banking industry is the need for consumer retail deposits, which are a critical source of funding and liquidity for banking institutions. Capital requirements imposed by regulatory bodies directly affect the need for deposits. Other methods exist beyond retail deposits to meet capital requirements but they are significantly more expensive (Skvoretz, February 10, 2011). Even American Express, a leading issuer of charge cards, offers personal savings accounts (American Express, 2010). Competition for deposits also extends to include the stock market and even consumer spending. It is also important to realize that investment opportunities, especially in a growing economic climate act as a critical competitor for deposits.

3.3. Bank of America Division Segments

Looking at the enterprise system boundary, processes that exist across the boundary consist mainly of finance-related transactions. Such transactions include both short-term and long-term borrowing, saving and spending by consumers, and day-to-day business transactions. Further, processes include investing by all stakeholders and by BAC itself and supplying financial research to clients and investors (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010). Specific services that cross the enterprise boundary as presented in Bank of America's Company Overview include consumer and commercial banking, investment banking, investing services such as asset management, risk management, etc. (Bank of America Corp., Company Overview).

One could also decompose the enterprise as a system from a functional standpoint. Bank of America offers one such decomposition, decomposing itself into six individual services (1) Deposits, (2) Global Card Services, (3) Home Loans & Insurance, (4) Global Commercial Banking, (5) Global Banking & Markets, (6) Global Wealth & Investment Management. Additional services such as Global Principal Investments are grouped as "Other" (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 1).

3.3.1. Deposits

The deposits line of business serves consumers and small businesses as clients as stakeholders. According to Bank of America's 2009 annual report, the Bank provided services to 59 million consumers and small businesses as of the end of 2009. Further reported, also as of the end of 2009, the total value of all deposits was $419.6 billion (Bank of America Corp., Annual Report, 2010, p. 40). Bank of America provides value to these stakeholders through service offerings such as checking and savings accounts, money market accounts, CDs, and IRAs and interest on deposits. Bank of America receives value in return in the form of an interest rate spread. For example, consumers might receive 0.10% interest on their retail deposits held with BAC. Bank of America then lends out those deposits and receives interest in return, capturing a difference of say 1.5% or more (Skvoretz, February 10, 2011).

Concurrently, as described in the 2009 Annual Report, consumer and small business deposits provide value in the form of liquidity and funding to the Bank. Bank of America also receives value in the form of fees, which include account fees, overdraft charges, and ATM fees (Bank of America Corp., Annual Report, 2010, p. 40).

Taking an infrastructure perspective, BAC has over 6,000 banking locations, over 18,000 ATMs, and maintains operations in 32 states according to its 2009 Annual Report. The online banking platform is used by 29.6 million customers and offers services including bill paying, viewing of account balances, and fund transfers (Bank of America Corp., Annual Report, 2010, p. 40) (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 46-48) (Bank of America Corp., Company Overview).

3.3.2. Global Card Services

Just as with the deposits business segment, global card services also targets consumers and small businesses as client stakeholders. Specific services offered include credit cards, debit cards, lines of credit, and consumer lending. In this line of business, value flows to customers in the form of credit and other credit and debit card benefits. Bank of America in turn receives value from interest payments and fees. According to Bank of America's Mid-Year 2010 Investor Fact Book, the Bank has a market share for global card services that is first in Europe and second in the United States. Further, at the end of the first half of 2010, consumers and small businesses had $12.2 billion in credit with Bank of America (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 51, 52).

3.3.3. Home Loans & Insurance

Bank of America's home loans and insurance service segment targets individual consumers and businesses as stakeholders. Services offered include traditional mortgages, reverse mortgages, and home equity loans. According to the Mid Year 2010 Investor Fact Book, in the case of traditional mortgages, Bank of America originates and retains the mortgage and / or sells it into the secondary market while retaining the mortgage servicing rights (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 56-59). Taking a stakeholder value flow view, the mortgage recipient gains the benefit of a loan and Bank of America receives value in the form of servicing fees if the mortgage is sold or interest payments if the mortgage is not sold.

Regulators as stakeholders of the home loans division include Fannie Mae, Freddie Mac, and the Federal Housing Administration or FHA. Bank of America reports that in 2010 it was the largest US mortgage servicer and the second largest mortgage originator. By the end of the first half of 2010, Bank of America states that it had a total mortgage servicing portfolio of $2.1 trillion across 14 million loans (Bank of America Corp., Mid Year 2010

Investor Fact Book, 2010, p. 56, 58). On the insurance side, BAC offers such products as homeowner, renter, automobile, and life insurance (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 56-59).

3.3.4. Global Commercial Banking

Unlike retail banking, which targets consumers and small businesses, Bank of America classifies its commercial banking unit's customers, which also can be viewed as stakeholders, as corporations with revenue in the range $1 million to $2 billion (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 63). BAC reports that it provides over 148,000 such clients with products and services including commercial loans, real-estate lending, treasury-related offerings, foreign exchange, liquidity services, 401(k)s, etc. (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 62). Decomposing the Global Commercial Banking customers one level further reveals that clients include not-for-profit organizations, educational institutions, government organizations, real-estate companies, and dealerships (62).

3.3.5. Global Banking and Markets

Bank of America decomposes the Global Banking and Markets line of business into three main segments, Global Markets, Global Capital Markets, and Global Corporate & Investment Baking. While globally focused across six continents, the Global Markets segment has a very select client base. Bank of America reports that its clients include over 3,500 asset managers, banks, hedge funds, insurance companies, and pension funds (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 65, 67). Services offered include prime brokerage, trade execution, hedging offerings, and company research. As reported by Dealogic, the group is ranked first in global and US-asset backed securities (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 66).

The Global Capital Markets and Global Corporate & Investment Banking segments provide advice on mergers and acquisitions, underwrite transactions in both the equity and debt markets, and offer advisory services. Clients include large institutions and corporations in more than 150 countries (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 67). From a market share perspective, according to Dealogic, this division is in first or second place in a dozen service areas (67). Examples of the group's services, as offered by Bank of America, include providing advice on a MetLife acquisition and British Sky Broadcasting's sale to News Corp (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 65-68).

3.3.6. Global Wealth & Investment Management

Specific to this segment, customer stakeholders include high-net-worth and ultra-high-net-worth individuals. Services, as reported by Bank of America, for both customer groups include investment products such as equity and fixed income securities, wealth management, private banking, and retirement and benefit plans. A noteworthy aspect of the group is that it is made up in-part of previously acquired businesses including Merrill Lynch and U.S. Trust, both of which still utilize their legacy names (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 71, 72). The Global Wealth &

Investment Management division as a whole has over 15,000 financial advisors and is responsible for just under two trillion dollars in client assets as of the end of the second quarter in 2010. Further, one sub group of this division worth noting is Merrill Edge, which offers investment and bank services to clients with under $250 thousand in assets (71, 72).

3.3.7. Global Principal Investments

The final group, Global Principal Investments invests funds on behalf of Bank of America. As reported by BAC, specific investment areas include buyouts, acquisitions, and financing. Further, the group also invests in private equity funds and hedge funds (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 77).

3.4. Enterprise Boundary

To successfully evaluate enterprise transformation and change management practices and processes at Bank of America, defining the specific case to be studied and the boundary of what will be evaluated is critical. Bank of America's size, scope, and influence dictates this need.

As discussed earlier, Bank of America as it exists today is the result of numerous acquisitions over its history. With the acquisition of Merrill Lynch two years ago, Bank of America has effectively finished acquiring and integrating new businesses, internally referred to as "transition". The reason, as explained to me by Jonathan Skvoretz, is that Bank of America does not lack any strategic product or service that it desires to offer its customers and clients at this time (Skvoretz, February 10, 2011). The Bank's focus is now shifting to that of "transformation", looking at itself internally to identify and improve or streamline existing systems, processes, and procedures. As discussed, the Bank is seeking to ascertain, from an operation and a process standpoint, if "this is the best that we can do? (Skvoretz, September 8, 2010)."

Many of the businesses that Bank of America has integrated over the past decade are worthy of analysis. For example, the Merrill Lynch transition is nearly complete with integration ending in 2011 (Skvoretz, November 2010). Evaluating Bank of America's enterprise transformation and change management processes across all of its prior acquisitions and transition initiatives is beyond the scope of this project. Further, an enterprise-wide evaluation of change management practices at Bank of America using a total-enterprise approach is of such a large scope that it prohibits a quality evaluation for this project. Instead, selecting and evaluating a single transformation is a feasible and realistic approach.

As mentioned before, Bank of America is completing its acquisition and transition phase and is now focusing on internal enterprise transformation. Therefore, as suggested to me by Bank of America executives, their interest is in an outsider's perspective on and evaluation of the Bank's transformation process. One such initiative suggested, which will be the focus of this project, is the California Northwest (CANW) transformation.

Numerous lines of business however exist within the CANW region including business and consumer deposits, mortgages, insurance, debit cards, military banking, etc. (Steering Committee, August 2010, p. 5) (Steering Committee, September 2010, p. 5). Consequently, the scope is still very large and must be further defined for an effective evaluation. Therefore, for this project, I narrowed the scope to the consumer retail deposit banking segment within the California Northwest region.

3.4.1. California Northwest (CANW) Overview

The region known as California Northwest (CANW) consists of the states of California, Idaho, and Washington. These three states represent a major portion of Bank of America's nationwide retail banking network with 29% of all retail deposit accounts (Executive Framework Review, 2010, p. 4). According to an overview of the transformation initiative provided by Mike Gerringer, the executive leading the CANW transformation at BAC, in September 2010 California had 17.2 million consumer deposit accounts and Idaho and Washington combined had 3.6 million accounts. To provide additional insight into the scale of CANW, consumers had 9.5 million debit cards in California and had 1.4 million debit cards in the Northwest states. Further, looking at human resources, at the time of Mike Gerringer's report, there were 51 thousand associates in California and over five thousand in Idaho and Washington. In terms of physical infrastructure, there were over 900 banking centers in California and over 250 in Idaho and Washington (Gerringer, 2010, p. 2).

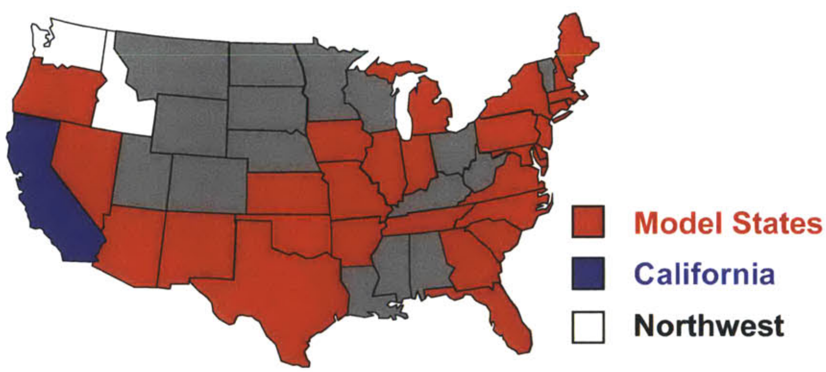


Figure 5 - Bank of America Nationwide Map – Current State
Source: Executive Framework Review, 2010, p. 4

The above map in Figure 5 highlights the CANW region. Specifically, the state of California is illustrated in blue and the states of Idaho and Washington are illustrated in white. Those states where Bank of America does not have a physical presence are highlighted in gray. The remaining states, which are referred to as "Model States" because the underlying banking environment in these states is the "Target Model Bank deposit sales, servicing and accounting platforms", are highlighted in red (Gerringer, 2010, p. 2).

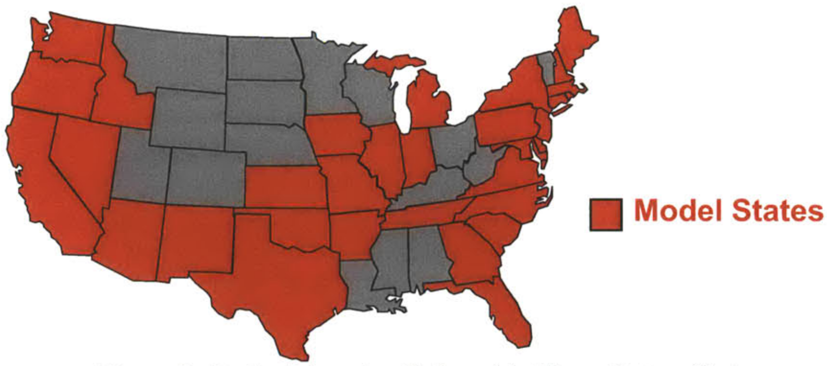


Figure 6 - Bank of America Nationwide Map – Future State
Source: Modified from Executive Framework Review, 2010, p. 4

Upon successful completion of the CANW transformation, as show in Figure 6, the states of California, Idaho, and Washington will be "Model Banking Center environment" states (Gerringer, 2010, p. 2).

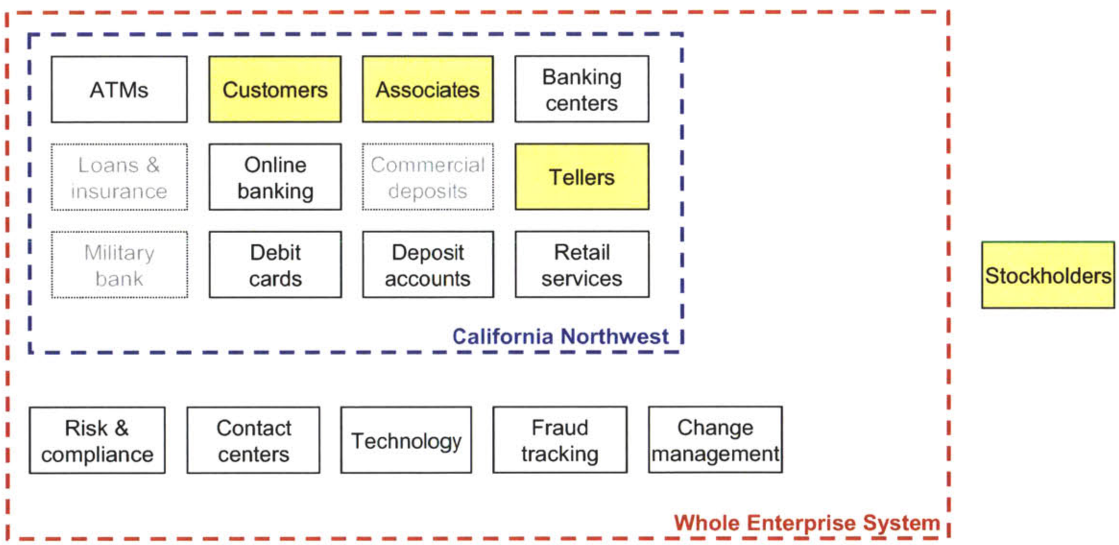


Figure 7 - California and Pacific Northwest Enterprise Boundary
Source: Executive Framework Review, 2010, p. 4, 6; Steering Committee, September 2010, p. 5; Steering Committee, August 2010, p. 5; Hanson and Sorkine, p. 3; Steering Committee, October 2010, p. 2; Saksenberg, 2010, p. 5-6

Figure 7 above presents a decompositional view of the California Northwest region and the associated elements that make up the whole enterprise system that is Bank of America Corporation. Boxes highlighted in yellow represent individual human elements. To narrow the scope of this project, the three faded elements "Loans & insurance", "Military bank", and "Commercial deposits", while part of the California Northwest banking environment are not part of my analysis and therefore are shown in gray.

3.5. Enterprise Mission and Goals

Examining its history, Bank of America's operations in California, Washington, and Idaho exist as a result of the 1998 merger between Nations Bank and Bank of America (McKinney, 2010). At the time of the merger, BAC integrated the California Northwest region but only focused on tasks and aspects of the integration that were of high priority. Tasks that were less important or not critical to ensuring an initial successful integration were not completed at the time of the merger. Many of these skipped tasks are now opportunities for Bank of America to realize enterprise efficiency and improve services that benefit its customers as stakeholders. One aspect not initially transitioned during the merger was the retail banking platforms, which remain as separate legacy systems. Bank of America is now finishing the remaining tasks needed to fully complete the integration by transforming the legacy CANW retail banking platform to that of the Model platform that constitutes the rest of its banking platform in the United States. Offering a single banking platform to its customers and for use by bank associates is a critical goal. While in reference to the Merrill Lynch acquisition and integration, BAC discusses in its 2009 10K filing the risk of failing to have a single platform across its entire network, stating "inconsistencies in standards, controls, procedures and policies that adversely affect our ability to maintain sufficiently strong relationships with clients, customers, depositors and employees" (Bank of America Corp., Form 10-K, 2009, p. 10). Bank of America is not simply seeking to finish the CANW integration. Rather it is undertaking the CANW transformation to be able to offer quality services to all of its customers / clients equally across its entire network of offices. As stated by Mike Gerringer, the executive leading the transformation initiative, "The California Northwest Transformation will provide nationwide consistency and efficiencies in processing and servicing customers and clients… (Gerringer, 2010, p. 2)"

Bank of America's overall principles as presented in the Mid Year 2010 Investor Fact Book include elements which, while not all the leading reasons for, are nevertheless directly applicable to the CANW transformation. The principles include "Be customer-driven", "Focus on customer activities", and "Manage risk well" (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 3). These Bank of America Corporation enterprise-level principles directly map to the key reasons behind the California Northwest Transformation. In an early assessment document produced by the CANW Steering Committee in August of 2010, two "key messages" presented are "De-risk the operating environment" and "Improve customer experience across Consumer and Small Business, GWIM, and Commercial" (Steering Committee, August 2010, p. 4). Further, the same document specifies that "Risk reduction and customer experience drive success" (Steering Committee, August 2010, p. 4).

Examining these two areas, the current California Northwest platform does not allow for offering the full suite of products that Bank of America offers its customers in the target Model states. In conversations I had with executives in the Transition Program Office (TPO), offering a full suite of products to all customers is an aspect of Bank of America's overall mission. Internally, supporting multiple platforms results in duplication of resources including infrastructure such as servers and software platforms, support services, etc. Further, a nationwide banking network that exists as a compilation of multiple banking platforms presents a significant operational risk, which is not conducive to Bank of America's overall mission.

3.5.1. Economic Climate

The financial industry in the United States and overseas has experienced unprecedented changes. The downturn of world financial markets led to the collapse of world-class financial institutions and government intervention on the order of hundreds of billions of dollars.

World-class financial institutions in existence for decades are now gone. Businesses across all sectors have drastically shrunk or are now closed. Unemployment remains at levels not seen in over 20 years (U.S. Bureau of Labor Statistics). According to the National Bureau of Economic Research, as reported by CNN, "the 18-month recession that started in December 2007 is the longest and deepest downturn for the U.S. economy since the Great Depression" (Isidore, 2010).

As stated by Bank of America in its 2010 Mid Year Investor Fact Book, the Bank operates in an economic environment where many of its customers are unemployed, have significant amounts of debt, and have seen the value of their homes plummet (43). This results in lower saving and checking account deposit levels and less spending from which the Bank can generate revenue in the form of credit card transaction fees. At the same time, regulatory reforms in the financial sector require institutions to maintain higher levels of capital and liquid assets (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 43). The harsh economic climate has led to an increase in credit card losses and write-downs at Bank of America. Additionally, changes in regulations surrounding the fees banks are able to collect from credit card and debit card transactions not only adversely affect Bank of America's revenue but also that of the entire banking industry (Skvoretz, February 10, 2011).

3.5.2. Transformation Mission

One consequence of the collapse of world financial markets and the resulting adverse economy is that of a constantly changing and unpredictable economic and regulatory environment. The unpredictable nature of the U.S. banking industry makes it all the more challenging for Bank of America to operate successfully and to support multiple retail banking platforms across the country. As banking regulations change, the ability to ensure that multiple systems are in compliance with the latest regulations becomes ever more challenging. Many regulations are currently in a state of transition and flux and the full implications are not yet known (Skvoretz, September 21, 2010).

Consequently, a key element of the California Northwest transformation, as described to me by a senior change management executive at BAC, is to make Bank of America "easier and less costly to operate" from a retail banking system standpoint. The goal is to be more "nimble" and to increase the speed at which the Bank is able to respond to both economic and regulatory changes in the industry (Skvoretz, February 10, 2011).

My research objective is twofold: (1) to analyze how the California Northwest (CANW) transformation goals, processes, metrics, and stakeholder values are reflected in this transformation initiative, where the enterprise boundary is the consumer retail banking sector in the CANW region and (2) to evaluate the effectiveness of, from an enterprise systems view, the transformation process that Bank of America is using to execute the CANW initiative.

4. Bank of America California Northwest Transformation

4.1. Goals Related to the BAC CANW Transformation

> *"The identification of a single or a small (concise) set of humanly solvable, representative (of true success), attainable (within resources & technology), consistent and complete goals is vital to resolving ambiguity and creating the path for product success (Crawley, October 2009, p. 143)." – Professor Ed Crawley.*

Separate from the mission and strategic objectives of Bank of America as a corporation are the goals of the California Northwest transformation. These goals and strategic objectives are articulated throughout the assessment material, transformation summary PowerPoint presentations, and overview sheets prepared by CANW transformation executives and change management associates. While I obtained some of the goals from bullet point lists, others I extracted from paragraphs and blocks of text that discussed a range of topics in addition to the goal itself. Table 2 below presents a compilation of the key goals I extracted from those documents and assessment presentations. While perhaps not complete, the table is structured to present key high-level goals worthy of analysis for this project. Identifying and compiling a list of "enterprise goals / strategic objectives" is part of the first ESAT step, "Step 1: Define the Enterprise (Nightingale, Stanke, and Bryan, 2008, p. 20)."

Table 2 - California Northwest Transformation Goals

1. **Nationwide consistency**
    - Across all the states where Bank of America operates, customers and clients will have access to a consistent set of products and services and will experience the same quality and level of service (Steering Committee, September 2010, p. 8) (Steering Committee, August 2010, p. 13).
    - As noted by Bank of America's transformation assessment documents, the end state of this goal is that those customers in CANW, which constitutes 28% of BAC's customer base, will also have access to the products and services offered to the rest of the Bank's customers outside of the California Northwest region (Steering Committee, August 2010, p. 4).
2. **Nationwide product rollout**
    - Products and services are separately released in individual regions at Bank of America. The CANW transformation will facilitate the nationwide deployment of products and services (Steering Committee, August 2010, p. 13).

3. **Standard enterprise-wide processes and technology**
    - Internally, Bank of America will have a single retail banking technology platform and a consistent set of processes across its entire enterprise, where the enterprise boundary is that of Bank of America Corporation (Gerringer, 2010, p. 2).

4. **Enhanced customer and client experience**
    - Bank of America will seek to provide its customers and clients with an improved experience when conducting business with the Bank (Gerringer, 2010, p. 3) (Steering Committee, August 2010, p. 13) (Executive Framework Review, 2010, p. 5).

5. **Decreased operating complexity for associates**
    - In transforming the California Northwest sector, Bank of America seeks a simplified and streamlined operating environment for its associates to work in and serve the Bank's customers (Executive Framework Review, 2010, p. 5) (Steering Committee, August 2010, p. 13).

6. **Maintain BAC's reputation**
    - Both during the transformation and continuing after, BAC will maintain its enterprise-wide reputation at the current level (Steering Committee, August 2010, p. 8).

7. **Decreased operational risk**
    - Bank of America seeks a state of lower operational risk across its enterprise (Gerringer, 2010, p. 3) (Steering Committee, August 2010, p. 13) (Executive Framework Review, 2010, p. 5).

8. **Greater number of products and services offered**
    - Customers and clients across the enterprise and especially in the Northwest region will be offered and have access to a larger quantity of services and products (Gerringer, 2010, p. 3) (Steering Committee, August 2010, p. 13).

9. **Minimize conversion adverse customer and associate issues**
    - As the actual conversion unfolds, BAC seeks to "minimize negative impacts" on customers, clients, associates, and other such stakeholders (Steering Committee, August 2010, p. 4).

10. **Decreased risk of compliance failure**
    - The California Northwest transformation will result in streamlined operations across the entire corporation as the enterprise. BAC believes that streamlining its operations will decrease the potential for future adverse compliance issues (Executive Framework Review, 2010, p. 5).

11. Reduce operating costs by $x to $x million by 20xx

- Bank of America, through its California Northwest transformation is seeking operating cost savings of $x to $x million by 20xx (Gerringer, 2010, p. 3) (Executive Framework Review, 2010, p. 3).

12. Facilitate revenue growth

- BAC seeks to facilitate revenue growth as part of the California Northwest transformation (Executive Framework Review, 2010, p. 5).

13. Decreased technology complexity

- The end state of the California Northwest transformation is a retail banking platform reduced in complexity (Steering Committee, August 2010, p. 13).

14. Decreased potential for technology problems

- Upon completion of the CANW transformation, the resulting enterprise IT system state should provide for a decrease in the potential for the emergence of problems related to technology (Steering Committee, August 2010, p. 13).

15. Decreased technology development and deployment time and cost

- The California Northwest transformation will result in a single, nationwide platform, which decreases the time required to deploy and the cost to develop technology products and services (Steering Committee, August 2010, p. 13).

4.1.1. Goals Analysis

When reviewing the goals presented by Bank of America for the California Northwest transformation, as far as I have been able to identify, very few directly relate to the Bank's desire for a flexible operating platform that more easily facilitates system changes. In conversations with Jonathan Skvoretz, it became apparent that one of the Bank's most pressing concerns is maintaining an enterprise that is flexible enough to react effectively to a changing regulatory environment (Skvoretz, September 21, 2010). Bank of America seeks to streamline its operations by combining the California Northwest banking platforms with its Model platform across the remaining states where the Bank operates. This is in-part due to the complexity of updating multiple systems vs. updating a single system upon the introduction of new government regulations and policies.

Looking individually at the goals, only one goal that I have been able to identify, "Decreased risk of compliance failure", appears to relate to regulatory compliance. However, this goal does not address the flexibility of the enterprise to adapt to and meet ongoing regulatory changes. While goals exist that relate to streamlined technology deployment such as "Decreased technology development and deployment time and cost", I have not been able to locate a goal that mentions or directly ties back to the need for flexibility regarding regulatory changes. While such goals might be known and verbally discussed among the transformation team, as far as I could ascertain from the CANW assessment materials, such goals are not documented. Therefore, to ensure that the transformation meets all of the known but unstated goals, it is important that the goals that discuss a changing regulatory environment be explicitly documented in the California Northwest assessment material.

Overall, the set of strategic objectives tends to focus on that of a single nationwide retail banking platform, which is indeed a key goal of the CANW transformation (Gerringer, 2010, p. 2). Three strategic objectives, "Nationwide consistency", "Nationwide product rollout", and "Standard enterprise-wide processes and technology" directly relate to this goal. Many other strategic objectives such as "Decreased operating complexity for associates" tie back into the single nationwide banking platform goal but appear to exist as secondary objectives.

4.1.2. Quality Enterprise System Goals

When reviewing the transformation objectives, the question of how to best evaluate the merits of each goal emerges. Simply identifying and stating the goals of the California Northwest transformation is insufficient. Verifying whether each goal is a quality and well-defined goal is critical and must be completed by the change management team. In this regard, Bank of America Corporation is an enterprise that one can view as a system with individual elements that consist of people, products, service offerings, customer accounts, etc., which are connected by processes. When architecting or designing a traditional system, such as that of a product, the architect defines system "requirements". To be considered well-defined, the requirements must be "necessary", "verifiable", and "achievable" as stated in the INCOSE Systems Engineering Handbook (International Council on Systems Engineering, 2010, p. 76-77).

INCOSE or the International Council on Systems Engineering is a 20-year old not-for-profit organization that exists to "develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems (INCOSE, 2011)." Although these attributes are traditionally used to evaluate the requirements of an engineering system, I argue that they are equally applicable to the goals of a service system such as that of Bank of America Corporation and its transformation initiatives. The INCOSE handbook supports this by stating that the handbook is structured "to ensure its usefulness across a wide range of application domains – man-made systems and products, as well as business and services (International Council on Systems Engineering, 2010, p. 1)." In this regard, the CANW transformation goals, to be considered well-defined goals, must be "necessary", "verifiable", and "achievable." Table 3 below lists each goal and characterizes it according to the INCOSE attributes. A check mark indicates that the goal meets the respective attribute; an "X" indicates that the goal does not meet the respective attribute; a question mark indicates a lack of sufficient information to make a determination.

Table 3 - Enterprise System Goal Attributes

Goal	Necessary	Clear & Concise	Measurable	Achievable	Verifiable
Nationwide Consistency	✓	✗	✓	✓	✓
Nationwide Product Rollout	?	✗	✓	✓	✓
Standard Enterprise-wide Processes and Technology	✓	✓	✓	✓	✓
Enhanced Customer and Client Experience	?	✗	✓	✓	✓
Decreased Operating Complexity for Associates	?	✗	?	✓	✓
Maintain BAC's Reputation	✓	✗	✓	✓	✓
Decreased Operational Risk	✓	✗	✗	✓	?
Greater Number of Products and Services Offered	✗	✗	✓	✓	✓
Minimize Conversion Adverse Customer and Associate Issues	✓	✓	?	✓	?
Decreased Risk of Compliance Failure	✓	✓	✗	✓	?
Reduce Operating Costs by $x to $x Million by 20xx	?	✓	✓	?	✓
Facilitate Revenue Growth	✗	?	✗	?	✗
Decreased Technology Complexity	✓	✓	✓	✓	✓
Decreased Potential for Technology Problems	✓	✓	?	✓	✗
Decreased Technology Development and Deployment Time and Cost	✓	✓	✓	✓	✓

Source: International Council on Systems Engineering, 2010, p. 76-77

Key

✓	Goal satisfies attribute
✗	Does not meet the respective attribute
?	Insufficient information to make a determination

Overall, the wording and structure of the goals could be improved. Many of the individual goals are unclear and ambiguous. While "Nationwide Consistency" might be attainable, what does "consistency" specifically mean? The goal "Enhanced Customer and Client Experience" raises questions as to whether it is a necessary goal for the California Northwest transformation, which is mainly focused on combining banking platforms. "Decreased Risk of Compliance Failure" is another unclear goal. What does it mean to have "a reduction in risk"? How can this be measured and verified? The goal "Greater Number of Products and Services Offered" is not clear & concise. Retail branch offices in one state could offer customers customized checkbooks, which would constitute a greater number of products and services offered; however, this is not the intent of the goal.

According to the INCOSE Systems Engineering Handbook, a well defined goal is one that is not open to multiple interpretations (International Council on Systems Engineering, 2010, p. 76). Goals must be very clear. For example, "Facilitate Revenue Growth" can be interpreted in a variety of ways and an unlimited number of unintended processes could be developed and implemented to meet the goal. Further, this goal does not offer any target values, which results in ambiguity and prohibits measuring progress made. Questions also arise as to whether the goal is verifiable. Can an increase in revenue really be tied back to specific California Northwest transformation processes? Verifying whether an increase in revenue is due to a specific transformation process is nearly impossible given the multitude of factors that impact revenue at Bank of America.

Looking at an overall well-stated goal, "Maintain BAC's Reputation" is an example of such a goal, and one that is critical to Bank of America as an enterprise. Overnight an enterprise's reputation can drastically change, which has profound consequences. As defined by the INCOSE Systems Engineering Handbook, the goal is "necessary", "verifiable", and "achievable" (International Council on Systems Engineering, 2010, p. 76-77). BAC does not need to make the case that this goal is "necessary". It goes without saying that a Bank's reputation attracts and retains customers, draws investors, ensures favorable ratings from Wall Street, etc. The nature of the goal, in stating "maintain" a reputation, is "attainable". Bank of America's change management team has the ability to ensure uninterrupted service during the California Northwest transformation. Further, the Bank seeks to implement a transformation that maintains its consumer and client experience with the exception of positive changes. Finally, the remaining attribute is "verifiable". Reputation can be verified through a variety of methods, whether through stock price, customer surveys, rating agencies such as Standard & Poor's and Moody's, and consumer rating services. However, BAC does not provide any indication as to how it will seek to verify and or measure its reputation.

Another goal stands out as well defined in that it is "clear", "concise", "verifiable", and "attainable". "Reduce Operating Costs by $x to $x million by 20xx" is a well-defined goal. The goal is clear and concise as it cannot be interpreted in multiple ways. Another words, as stated by INCOSE, it is "unambiguous" (International Council on Systems Engineering, 2010, p. 76, 362). Note that for confidentiality reasons I removed the actual dollar values and target year. Further, metrics are clearly used in the goal and, as a result, the goal is measurable and verifiable. Costs in every form are measured on a periodic basis at the Bank. Relative to Bank of America's 2009 total noninterest expense of $66.7 billion, as reported in its 2009 10-K SEC filing, the desired cost savings is quite reasonable and therefore I argue is attainable (Bank of America Corp., Form 10-K, 2009, p. 114). The goal is also verifiable. An executive can examine the Bank's costs at the start of the transformation and again upon completion and verify that there was a cost savings. At the same time, I question whether the goal is truly verifiable. While an executive can verify that there was a cost savings, I question whether the savings can be verified as specifically attributable to the CANW transformation. The only question that remains is whether the goal is necessary. Perhaps cost savings while desirable is not a necessary element of the California Northwest transformation. However, so long as the "necessary" attribute is known, I leave it to the CANW transformation management team to make the determination as to whether the cost savings is indeed a "necessary" component.

In reviewing the CANW assessment material, one goal was presented that I argue should be viewed as a process rather than as a goal. "Bring California, Washington, and Idaho to the corporate target environment anchored by Model" is a critical element of and the reason behind Bank of America's California Northwest transformation (Gerringer, 2010, p. 3). The end result BAC wishes to achieve is that of an enterprise state where the CANW banking platforms, systems, processes, services, and products are equal to those that the Bank maintains or offers across the rest of the United States. While the goal does offer an end state along the lines of the "Nationwide Consistency" goal presented earlier, this particular goal, as detailed in the CANW assessment documents, I argue should be viewed as a process (Gerringer, 2010, p. 3). In processes, there is an input, a transformation function, and an output as a result of the transformation function. As stated in the book, *Beyond the Lean Revolution*, an enterprise process is "a strategic, high-level, cross-functional activity involved in creating and delivering value to one or more enterprise stakeholders (Nightingale and Srinivasan, 2010, p. 61)." In contrast, a goal represents an end-state and does not contain an input and a transformation function. Specifically, a goal is "the end toward which effort is directed (Merriam-Webster, 2011)." Therefore, as the above statement presents an input state, discusses a transformation, and specifies an output state, it should be classified as a process rather than as a goal.

4.2. High-Level Processes

Separate from the goals are the individual processes that make up the California Northwest transformation. As with the goals, I extracted these processes from assessment documents and CANW transformation presentations. For the most part, I focused on processes that are value-add to this specific transformation initiative, such as "Convert customer deposit accounts" rather than on processes that are generic for all transformation initiatives such as "Complete gap assessment (Davis, December 2010)." While I separately analyzed Bank of America's transformation processes, the purpose of the processes I compiled in Table 4 below is to evaluate how these processes relate to the CANW transformation metrics and stakeholder values. As with goals, identifying the high-level processes that make up the transformation is part of the first ESAT step, "Step 1: Define the Enterprise (Nightingale, Stanke, and Bryan, 2008, p. 20)."

The California Northwest transformation processes I identified are as follows:

Table 4 - California Northwest Transformation Processes

1. **Develop communication plan**
   - A communication plan is critical for notifying customers and associates regarding banking changes as a result of the transformation (Cross, p. 3).

2. **Develop training plan**
   - The development of a plan for training associates (Davis, 2010).

3. **Train associates**
   - Train associates in new systems and processes (Steering Committee, September 2010, p. 10) (Cross, p. 5) (Hanson and Sorkine, p. 3).

4. **Communicate changes to associates**
   - Communicate changes to associates regarding the transformation (Steering Committee, September 2010, p. 10) (Cross, p. 5) (Hanson and Sorkine, p. 3).

5. **Inform customers**
   - Customers must be informed regarding planned transformation initiatives, including those that affect online banking and mobile offerings.

6. **Integrate associate support tools and procedures**
   - Removal of WA and ID system references (Cross, p. 3).

7. **Convert customer deposit accounts**
   - Deposit accounts in California, Idaho, and Washington must be converted to the target platform (Hanson and Sorkine, p. 3).

8. **Update online banking**
   - Update WA, CA, and ID online banking including bill payment, mobile banking, etc. and remove region specific references (Cross, p. 3, 4).

9. **Update ATMs**
   - Update ATMs in ID, WA, and CA including the removal of region specific references (Cross, p. 3, 4).

10. **Establish nationwide customer authentication**
    - CANW customer authentication is to be converted to that of the target banking platform for ATMs, voice transaction systems, online banking, etc. (Cross, p. 3) (Davis, 2010).

11. **Convert debit cards**
    - Debit cards tied to California, Idaho, and Washington legacy systems must be transitioned to the target system (Hanson and Sorkine, p. 4).

12. Reissue NW debit cards

- Debit cards with 18 digits in Idaho and Washington must be reissued to meet the target platform, which is limited to 16 digits. New cards must be issued to replace family customer cards with the same number to meet target platform requirements (Hanson and Sorkine, p. 4).

13. Prefix account numbers

- Account numbers less than 12 digits long in California, Idaho, and Washington must be converted to the target 12 digit length by adding zeros (Hanson and Sorkine, p. 4).

14. Update telephone numbers

- Telephone numbers on customer checks and statements and in the yellow pages must be updated. Old numbers are retained for six months after completion of the transformation (Cross, p. 6).

15. Upgrade IT

- IT infrastructure and electronic systems in CA, ID, and WA must be updated to meet the target platform standards (Cross, p. 3, 4).

16. Upgrade contact centers

- To meet the target operating environment, existing contact centers in CA, WA, and ID must be upgraded (Cross, p. 4).

17. Convert fraud systems

- Fraud "detection and prevention" systems in CA, WA, and ID must be updated to meet the target operating specifications (Cross, p. 4).

18. Transfer legacy products and processes

- In California, Idaho, and Washington, legacy deposit processes and products not discontinued must be transferred to the target system (Hanson and Sorkine, p. 3). Select systems will be updated to meet target standards including the money transfer system in WA and ID (Cross, p. 3).

19. Convert deposit applications

- Deposit applications must be converted to the target system; examples include IMPACS, S/T, FAST, etc. (Hanson and Sorkine, p. 3).

20. Decommission legacy applications and hardware

- Legacy system applications not transferred must be closed, which includes channel applications, Pay By Phone, and other WA, ID, and CA applications (Cross, p. 3, 4).

21. Deploy MICR

- Replace existing cashier check and money order printing with MICR system.

22. Develop test plans

- Test plans must be developed, which includes specifying the testing environment, timeline, resources, people, and data required to successfully execute the test plans, etc. (McKinney, February 2011) (Davis, February 2011).

23. Implement test plans

- Tests run include component and system integration testing and user acceptance testing, which ensure that the developed software code is inline with the specified functional requirements (McKinney, February 2011) (Davis, February 2011).

24. Complete dress rehearsal

- The focus of the transformation dress rehearsal is customer and account conversion. A simulation of the transformation execution tasks is run with bank customers to mimic the actual transformation implementation phase (McKinney, February 2011) (Davis, February 2011).

4.2.1. Processes Analysis

The processes as provided in the California Northwest assessment material focus specifically on the actions required to successfully complete the CANW transformation. Processes range from those heavily grounded in upgrading and modifying IT systems to customer and associate communication and training. In this regard, Bank of America's focus for the transformation processes is on the transformation itself rather than on specific business as usual processes and subsequently seeking to improve them. In contrast, the ESAT methodology discussed focuses on enterprise processes, which the ESAT Guide defines as "a set of strategic, high-level, cross-functional activities, decisions, and interfaces involved in creating and delivering value to one or more enterprise stakeholders (Nightingale, Stanke, and Bryan, 2008, p. 27)." At Bank of America, such enterprise processes would constitute business as usual or day-to-day operating processes.

The significance is that the nature of Bank of America's transformation approach leads it to start with a specific goal or strategic objective. After that objective is identified, processes are conceived and developed so as to meet the objective once those processes are executed. In contrast, ESAT takes the opposite approach and looks towards the existing processes that make up an enterprise value stream. After these processes are identified, ESAT focuses on identifying inefficiencies or waste in the value stream. Eliminating waste and streamlining or improving the enterprise and its value stream becomes the goal. As stated in the ESAT Guide, "The emphasis of ESAT on understanding the enterprise value streams, the value flow between key stakeholders and the enterprise, and interactions both within and across the enterprise, enables the identification of enterprise wastes and opportunities for improvement (Nightingale, Stanke, and Bryan, 2008, p. 7)." When viewing transformation processes, this difference is important to note. While the end goal, enterprise improvement, is the same, for a BAC transformation processes originate from the strategic objective while for an ESAT-type framework the strategic objective originates from enterprise processes. Realizing this emphasizes the need to ensure that the right strategic objective is selected and the mechanism by which that is done is robust and well understood.

4.3. California Northwest Metrics

Strategic objectives / goals and the processes undertaken to meet those goals are insufficient unless the success of those processes can be successfully measured. Table 5 below contains a compilation of the metrics discussed and presented in the assessment material. For the most part, I extracted these with the original metric names intact for description accuracy. Where the information was available or where I could easily interpret the metric I also included a description of what is measured and the desired target value to be reached upon conclusion of the CANW transformation. The metrics that are underlined are ones that I feel are sufficiently important to warrant further analysis. Please note that the list is not intended to be complete but rather is designed to present an overview of the key metrics used to track the progress of the California Northwest transformation for this analysis. Also, the metrics reflect those that I extracted from documents produced only as recent as the fall of 2010 and the list should therefore be viewed accordingly. As with identifying the strategic objectives / goals and processes, obtaining high-level enterprise metrics is also part of the first ESAT step, "Step 1: Define the Enterprise (Nightingale, Stanke, and Bryan, 2008, p. 20)."

Table 5 - Enterprise Metrics

Metric	Measured	Target Value
<u>ATM/POS transaction volumes</u>	Volume of transactions at ATMs and card swipe terminals	>= volume prior to transformation
<u>ATM/POS declines</u>	Failed transactions at ATMs and card swipe terminals	= volume prior to transformation
ATM/POS FCIs	??	Unchanged / equal to baseline volumes
Fraud losses	Dollar value lost due to fraudulent account transactions	Unchanged
Fraud decisions per hour	Fraud claims processed by associates	Unchanged
Fraud call volumes	Volume of customers reporting fraudulent transactions	= volume prior to transformation (or slightly higher)
Claims COE: class offered	??	= Model system value
Claims COE: incoming claims	??	= Model system value
<u>Claims COE: service levels</u>	Quality of support provided by call center associates	= Model system value
Claims COE: payment research timeliness	Time required to investigate a bill payment issue	= Model system value
<u>Deposit accounts</u>	Quantity of accounts converted to the new system	3.6 million in NW and 15.6 million in CA
<u>Debit card (CA & NW)</u>	Number of issued debit cards required to be converted	4 million unlinked cards
<u>Debit card (NW)</u>	Family member cards and 18 digit savings only cards that will be reissued	650,000 and 38,000 cards (respectively)
DPO&M: SLA	??	98% to 100%

DPO&M: unit cost	??	??
DPO&M: accuracy rates	??	??
(IP) release to post on-time percentage	??	95% average
(IP) # of R&D cases per 1 million prime pass items	??	<25 cases per 1 million items
(IP/Returns & Exceptions) un-posted credits	??	Unchanged
(IP/R&A) account not found debits	??	Unchanged
Online banking conversion	Number of users transferred to target platform	720k users; 300k CheckFree customers
Contact center: sales, service, operations, NS&S	Transforming service support centers to target platform	Unchanged

Source: Cross, p. 3; Hanson and Sorkine, p. 3, 4; Davis and Rohrwasser, p. 3; Steering Committee, September 2010, p. 15, 16
Template provided by MIT Lean Advancement Initiative

4.3.1. Metric Analysis

When I reviewed the CANW metrics a number of key insights emerged. Most of the key metrics such as "Deposit accounts" and "Online banking conversion" focus on the CANW transformation itself rather than on business as usual. These metrics are very specific as they each focus on a single element of the transformation, such as converting deposit accounts or issuing new debit cards. The metrics that do track business as usual processes such as "Fraud losses" and "ATM/POS declines" have target values that are either unchanged or are equal to the corresponding Model platform value. In this regard, the target values can be thought of as almost binary in nature, either unchanged or not or either the future state value is met or it is not.

The nature of the metrics as a whole is interesting as they focus on actions or the monitoring of specific items needed to ensure a successful CANW transformation. Metrics used to track the success of Bank of America Corporation as an enterprise at a high level such as return on investment (ROI), a price to earnings ratio, and retail deposit levels are not included. Therefore, for the CANW transformation, by way of the metrics used, I argue that Bank of America is not directly focused on tracking the impact the initiative has on the Bank's day-to-day performance. Rather, the Bank appears to be focused on tracking the success of the California Northwest transformation itself. Whether the transformation when completed meets the strategic objectives set forth at the start of the initiative such as "Enhanced customer and client experience" and "Decreased operational risk" I argue is not directly captured or monitored by the above metrics. The ESAT methodology recommends selecting "the few key metrics that measure enterprise performance towards the strategic objectives (Nightingale, Stanke, and Bryan, 2008, p. 20)." In this regard, when this statement is viewed in the context of a transformation initiative, I view the metrics above as structured to assess the completion of the initiative, in this case California Northwest. However, they do not appear to go so far as measuring whether the CANW transformation ultimately will have reached its goals upon completion and therefore will have met the strategic objectives laid out at the start of the initiative such as "Enhanced customer and client experience."

4.4. Stakeholders

Identifying all the stakeholders that are affected by the California Northwest transformation and their needs is critical. Without a comprehensive stakeholder analysis many stakeholder needs may be overlooked and the value the transformation offers might not be fully realized. As stated in the book *Beyond the Lean Revolution*:

> *"At its core, stakeholder analysis is a process for aligning the enterprise with its stakeholders. The analysis not only brings to the forefront the disconnects and misalignments in the enterprise value proposition, but it also provides an opportunity for the enterprise to reflect on whether its value proposition is correct (Nightingale and Srinivasan, 2010, p. 45)."*

While key stakeholders such as associates (employees) and customers are arguably already known, many others might not be as obvious or their needs not fully understood. Identifying and laying out all the stakeholders and all their needs is absolutely critical for a successful transformation and is also part of the first ESAT step, "Step 1: Define the Enterprise (Nightingale, Stanke, and Bryan, 2008, p. 20)." When specifically examining the CANW transformation, two types of stakeholder values / needs exist. These are needs that specifically relate to and will be addressed by the transformation and those continual needs that exist irrespective of any given change initiative. Where available and when possible, I presented and focused on the stakeholder needs specifically in reference to the California Northwest transformation.

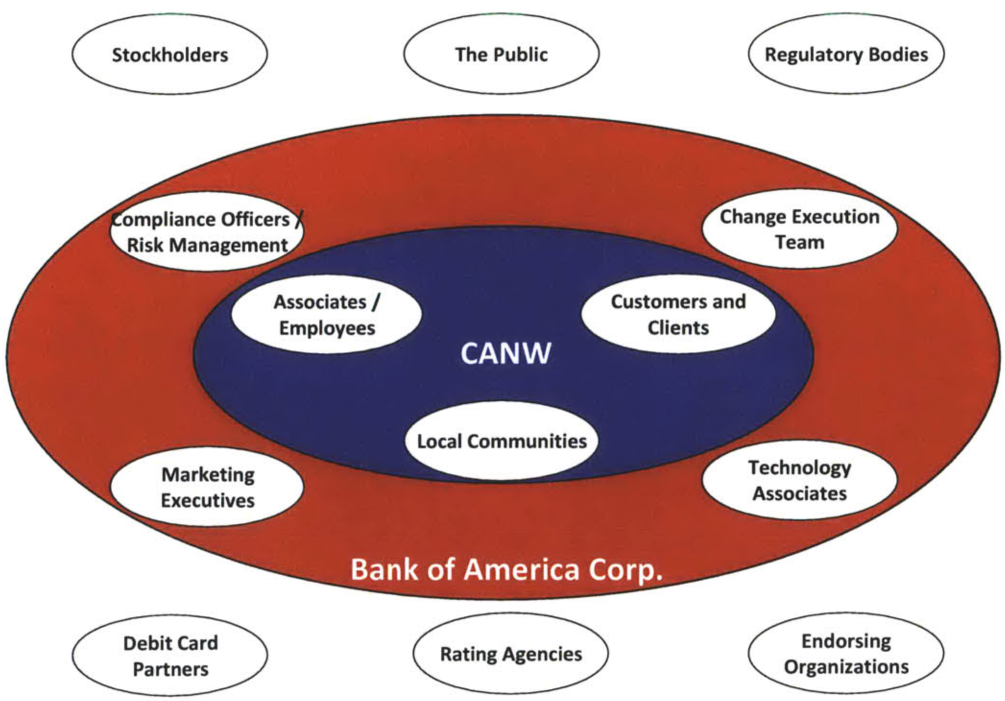


Figure 8 - Stakeholder Diagram

Source: Compiled from Table 6 and Table 7 below

Figure 8 presents a visual layout of the stakeholders discussed in Table 6 and Table 7 below. I obtained these stakeholders by reviewing California Northwest assessment material, Bank of America SEC filings, and other documents. The inner oval, which is highlighted in blue, represents the CANW region. Within the blue oval are stakeholders that are both affected by the transformation and primarily reside within the California Northwest region. For example, "Customers and Clients" are those retail customers that have a deposit account in California, Idaho, or Washington. However, at the same time this is a simplification as customers outside of the CANW region will also benefit from the "Nationwide consistency" that the transformation will offer all Bank of America customers (Gerringer, 2010, p. 2).

The red oval region represents the rest of Bank of America Corp.'s banking environment. Those stakeholders contained within, such as the change execution team and technology associates, are ones that are directly affected by or act in a supporting role to the CANW transformation. However, the role and responsibility of these stakeholders for the most part does not reside specifically within California Northwest.

Looking out one level further are those stakeholders that exist as independent groups or entities and reside outside of Bank of America Corp. as an enterprise. Such key stakeholders include stockholders, the public, and regulatory bodies. These stakeholders both influence and are affected by Bank of America Corp., the red oval, and California Northwest, the blue oval.

4.4.1. CANW Stakeholders Identified by Bank of America

Table 6 presents those stakeholders and needs that I extracted from California Northwest (CANW) assessment material and other Bank of America documents and SEC filings. All of the stakeholders in Table 6 were either presented or their existence alluded to in the assessment documents that I had access to. For example, while customers and clients were directly discussed, only the needs of marketing executives were mentioned. For the most part, I extracted the individual stakeholder needs from the assessment material. However, where appropriate and where I felt a description of the stakeholder needs was lacking in detail I provide additional needs that I extracted from other bank documents but in relation to the CANW transformation.

Table 6 - CANW Stakeholders

Customers and Clients
Needs Consistent banking experience; Best products, advice, and service; Additional features and services; Receipt of debit cards for out of state accounts; Nationwide linking and servicing of accounts; Single point access to bank and brokerage statements and accounts; Combined California banking statements; "Relationship pricing" across all BAC states; Combined overdraft protection from savings and checking; Little to no impact felt during system conversion (Executive Framework Review, 2010, p. 6) (Steering Committee, August 2010, p. 14) (Steering Committee, September 2010, p. 5, 6, 12) (Bank of America Corp.,

Mid Year 2010 Investor Fact Book, 2010, p. 2)

Description

Customers and clients refer to retail banking customers who maintain a deposit and / or checking account with Bank of America. Customers include those that reside within and / or have account(s) in California, Idaho, and / or Washington and those customers that do not reside within or have accounts in one of these states. These two customer groups are worthy of analysis as they are both affected by and will receive value from the CANW transformation.

Associates / Employees

Needs

Simplified service platform; Single set of processes and procedures across the banking system; Minimal amount of complex training; Quality online experience (Executive Framework Review, 2010, p. 6) (Steering Committee, September 2010, p. 5)

Description

Associate (employee) groups include branch associates, call center associates, executives at the corporate level, etc. Associates consist of two groups. The first group is associates that are primarily located in California, Idaho, and Washington and serve customers with retail deposit accounts in these states. The second group consists of associates physically located outside of these states or who primarily serve customers outside of these three states. Both groups are affected by and are expected to benefit from the California Northwest transformation as a goal of the transformation is to provide nationwide consistency in terms of products and services, which affects associates (Steering Committee, September 2010, p. 8).

Compliance Officers – Risk Management

Needs

Simplified ability to make system changes in fluctuating regulatory environment; Reduction in operational risk
(Executive Framework Review, 2010, p. 6)

Description

The CANW assessment material presents compliance and risk management as a function or group but does not directly discuss individual associates within these groups, i.e. compliance officers, as stakeholders (Executive Framework Review, 2010, p. 6). Regardless, the nature of the California Northwest transformation in that it seeks to decrease operational risk has a direct affect on risk management teams. Recognizing the needs of this stakeholder group in the context of CANW is therefore important.

(Bank of America Corp., Form 10-K, 2009, p. 86)

Technology Associates

Needs

IT support cost reduction; Decrease in custom infrastructure; Reduced development costs
(Executive Framework Review, 2010, p. 6)

Description

In the CANW assessment documents, technology associates are not specifically presented as stakeholders. A considerable amount of material is devoted to presenting the transformation benefits that relate to technology including cost savings as a result of eliminating redundant data centers. However, the value presented is not tied back to the needs of specific stakeholders (Executive Framework Review, 2010, p. 6). As technology and IT is a considerable focus of the transformation and as most of the transformation processes are grounded in IT and technology system changes, I argue that recognizing and evaluating the needs of technology associates as a separate stakeholder group is critical.

Marketing Executives

Needs

Single marketable platform; Ability to offer "advanced features and services"; Flexibility to respond to changing market demand
(Executive Framework Review, 2010, p. 6)

Description

Marketing executives as stakeholders are not specifically articulated in the documents I reviewed. Rather, what is discussed are the actions that individuals in such a role need to perform, which I presented above as needs (Executive Framework Reviews, 2010, p. 6). While specifying those needs is an important step, it is critical that marketing executives be recognized as a stakeholder group. Doing so reinforces the importance of engaging this stakeholder group throughout the transformation.

Stockholders

Needs

Long-term, consistent returns; quality balance sheet; risk management

Description

Stockholders are those individuals and institutions that hold common and / or preferred stock of Bank of America Corporation. Specific stockholders include individual investors, Bank of America executives and associates, institutional investors, mutual funds, private investment partnerships, corporations, etc. (Yahoo! Finance, 2011) (Bank of America Corp., Form 10-K, 2009, p. 115).

(Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2)

4.4.2. Other CANW Stakeholders

Completing a comprehensive stakeholder analysis requires identifying all stakeholders and their needs that play a part in or are affected by the CANW transformation. The CANW assessment material I reviewed discusses a limited set of stakeholders and leaves out many that are worthy of analysis. To this extent, both by reviewing other Bank documents and by way of my own brainstorming, I developed the list below of other stakeholders worthy of consideration. While I sought to present the needs of these stakeholders in the context of the California Northwest transformation, the nature of these stakeholders and the fact that they were not directly discussed in the assessment material made this particularly challenging. For example, the needs of local communities while important to understand and recognize are more aligned with Bank of America as a whole rather than with any one specific transformation or change management initiative. Consequently, the needs presented are significantly more generic in nature than the needs I presented in Table 6 above for stakeholders specifically identified and discussed in the assessment documents.

Table 7 - Other CANW Stakeholders

Rating Agencies
Needs Revenue; Service fees; Client base; Source of work for its employees; Sufficient access to Bank documents, associates, and executives Description Rating Agencies, which include Moody's Investors Services, Standard & Poor's, and Fitch Ratings, provide credit ratings on Bank of America Corporation's debit and preferred stock (Bank of America Corp., Form 10-K, 2009, p. 49).
The Public
Needs Economic stability and growth; Stability of banks, financial institutions, and financial markets; Access to capital; Government receipt of corporate taxes Description The public as a whole consists of the general population of those countries in which Bank of America has a physical presence or does business. Individuals regardless of whether they use Bank of America's services or live in a neighborhood that has a Bank of America branch office are included in this stakeholder group. As the outcome of the CANW transformation affects individuals that reside in California, Idaho, and Washington and those who do not, I am not dividing this stakeholder group into two segments based on location.

Local Communities

Needs

Regional employment; Municipal (local) taxes; Access to cash; Community support; Local philanthropic initiatives; Environmental support activities

Description

Local communities are villages, towns, cities, and other such municipalities in which one or more Bank of America branch offices are located. One could further expand this stakeholder group to include municipalities where Bank of America operates Automated Teller Machines (ATMs) but does not otherwise have a branch office. For local communities that only have ATMs, stakeholder needs such as regional employment and municipal taxes should be ignored. As this stakeholder group is very region specific, for this analysis, I am focusing only on communities located in California, Idaho, and Washington.

(Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2)

Change Execution Team

Needs

<u>Senior management / C-level support</u>; <u>Change execution mandate / backing</u>; Resources (monetary & non-monetary); Employment; Satisfaction; Opportunity to utilize one's skills; Monetary and non-monetary compensation; Career advancement; Professional development

Description

The change execution team as a stakeholder group consists of those individuals that are directly assigned to or are materially involved with the California Northwest transformation. Associates who act in a supporting role or consult on the transformation but who are otherwise primarily assigned to business as usual teams I argue should not be considered part of this stakeholder group.

(Executive Framework Review, 2010, p. 9)

Debit Card Partners

Needs

Service advertising platform; Customer acquisition; Retention of existing customers

Description

Debit card partners offer consumers reward points in exchange for their use of Bank of America debit cards. As stated in BAC's 10-K SEC filing, points can be exchanged for airline tickets, consumer goods, or redeemed for cash (Bank of America Corp., Form 10-K, 2009, p. 127). Examples of partner debit cards include the US Airways Debit Card and the Alaska Airlines Debit Card (Bank of America Corp., Debit Cards).

Endorsing Organizations

Needs

Royalty payments; Reputable products to endorse; Source of work for its employees; Retention of individuals on its member lists

Description

As described by Bank of America in its 2009 10-K SEC filing, such organizations endorse select Bank of America products and services. Further, BAC receives access to the endorsing organization's member list for the purpose of marketing bank services. In exchange, the endorsing organization receives value from BAC in the form of royalty payments (Bank of America Corp., Form 10-K, 2009, p. 127).

Regulatory Bodies

Needs

Compliance with applicable regulations; Simple banking platforms & systems to oversee (BAC Discussion, 2011); Financial market stability; Action taken in the public's best interest; FDIC insurance fund fees; Other banking industry fees; Non-compliance fees

Description

As described in its 2009 10-K filing with the SEC, Bank of America's legal entity structure is that of a "registered bank holding company and financial holding company" (Bank of America Corp., Form 10-K, 2009, p. 2). This legal status is in-part what determines which regulatory bodies have jurisdiction over Bank of America.

Key organizations that have regulatory authority over BAC are as follows: The Office of the Comptroller of the Currency (OCC) has oversight over the receipt of deposits and traditional bank operations. The Federal Deposit Insurance Corporation (FDIC) insures retail deposits. The Federal Reserve Board also holds authority over Bank of America (Bank of America Corp., Form 10-K, 2009, p. 2).

Ongoing changes in the financial industry and regulatory reform could result in a change of influence of existing regulators and / or the creation of new regulatory stakeholders.

Organizations

The Federal Reserve Board

The Federal Reserve Board (Fed) dictates minimum capital requirements that the Bank must maintain. A critical regulation imposed by the Federal Reserve Board is *Regulation E*, which as disclosed in Bank of America documents, places limits on overdraft fees that the Bank can charge for ATM and debit card transactions (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 45). A challenge BAC faces is how to develop and manage its banking system so as to be able to effectively and efficiently implement system modifications to meet Regulation E regulatory requirement changes (Bank of America Corp., Form 10-K, 2009, p. 2, 6, 43, 175)

In July 2010, the *Financial Reform Act* became law and, according to Bank of America's Mid Year 2010 Investor Fact Book, restricted the Bank's competitive position and resulted in lower revenue and higher costs (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 45).

Further restrictions of the Financial Reform Act include placing limits on debit card interchange fees, preventing banks from proprietary trading, limiting the involvement of banks with hedge funds, introducing new capital requirements, etc. All of which, according to Bank of America's Mid Year 2010 Investor Fact Book can adversely effect BAC's income (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 45).

Federal Deposit Insurance Corporation (FDIC)

The FDIC provides insurance on deposits up to a limit of $250,000, which from a stakeholder analysis perspective is value provided to bank customers and clients. In exchange, banks must pay fees to the FDIC. According to its website, the FDIC insures over $7 trillion of deposits (Federal Deposit Insurance Corporation). Further, according to BAC's 2009 10-K SEC filing, the Federal Deposit Insurance Corporation, along with other regulatory stakeholders, implements minimum capital requirements (Bank of America Corp., Form 10-K, 2009, p. 43, 175).

Office of the Comptroller of the Currency (OCC)

The OCC jointly imposes with other regulatory body stakeholders minimum capital requirements on banking institutions (Bank of America Corp., Form 10-K, 2009, p. 43, 175).

Office of Thrift Supervision

A division of the Department of the Treasury, the Office of Thrift Supervision (OTS) monitors thrifts or savings institutions and holding companies of thrifts in the United States. The OTS receives revenue in the form of fees paid by the thrifts it monitors (Office of Thrift Supervision, 2011) (Bank of America Corp., Form 10-K, 2009, p. 43).

The Basel Committee on Banking Supervision

A committee of representatives from over two dozen countries that provide recommendations on banking guidelines. The individual countries represented while encouraged to, are not required to adopt the proposed guidelines. Recommendations made by the committee to the central banks and key leaders of the Committee's member countries focus on banking supervision and oversight frameworks (Bank for International

Settlements, 2011). Regulation frameworks produced include the Basel II Accord and the Basel II Final Rule (Bank of America Corp., Form 10-K, 2009, p. 176)

CARD Act

The CARD Act, which became effective in the spring of 2009 places restrictions on interest rates, dictates bank disclosure requirements, and places restrictions on charging fees based on risk (Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 45).

4.4.3. Stakeholder Analysis

The nature of the stakeholder needs in Table 6 as extracted from the assessment material is noteworthy in that the values do not refer to "as is" enterprise desires. Rather, the needs refer to outcomes of the CANW transformation initiative. In this regard, the assessment team is focused on identifying and characterizing stakeholder values in terms of the California Northwest transformation rather than in terms of business as usual. The significance is that the assessment teams I argue are only focusing on stakeholder values within the pre-defined scope of the CANW transformation instead of considering all stakeholder values including ones that perhaps might not be touched by the transformation. Expanding the set of values considered could adjust the scope or even increase the size of the CANW transformation. Doing so has the potential to provide for greater value creation but could also result in a greater transformation cost.

4.5. Stakeholder Value Exchange

While understanding who all the stakeholders are and what are their needs / values is a critical element of a transformation initiative, it is not sufficient. Simply understanding the needs of a given stakeholder does not provide any indication as to the level of satisfaction experienced by that stakeholder or stakeholder group. A high level of dissatisfaction on the part of a particular stakeholder might warrant a stronger focus on their needs during a transformation initiative. At the same time, all stakeholders provide value back to the enterprise in some form. Should Bank of America's structure inhibit the full realization of value provided by one or more stakeholder groups, then it is in the interest of the change execution team to seek to address this during a transformation initiative.

When viewed together, an unstable situation may result from a disconnect that exists between the value received by a stakeholder and the value provided by that stakeholder. In justifying the rationale for a transformation, executives need to understand the value each stakeholder receives from the enterprise and the value provided in return. Consequently, it is critical to clearly "define the value exchange between each stakeholder and the enterprise", which is part of the second ESAT step, "Step 2: Collect Data (Nightingale, Stanke, and Bryan, 2008, p. 32-33)."

Table 8 - Customer / Client – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Choice of products and services • The best products and services • Advice • Safekeeping of checking and saving deposits • Interest • Convenient access to funds through ATMs, checks, and debit cards • Loans	• Funds in the form of deposits • Banking fees • ATM fees • Debit card transaction fees

Source: Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2

Table 9 - Associate / Employee – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Ability to meet one's potential • Diverse work environment • Quality work environment • Work, life balance • Salary or hourly compensation • Retirement compensation offerings • Health benefits • Other benefits	• Customer service • Business unit operation • Customer problem solving • Deposit collection and processing • Branch office staffing

Source: Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2; Form 10-K, 2009, p. 176, 181

Table 10 - Compliance Officer / Risk Manager – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Employment • Job satisfaction • Career development • Salary-type compensation	• Regulatory compliance certification • Lower enterprise and operational risk liability

Source: Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2

Table 11 - Technology Associate – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Employment • Job satisfaction • Career development • Salary or hourly compensation • Opportunity to use one's technology talent	• Facilitation of business as usual • IT system functionality maintenance • Enterprise stability • Zero system downtime • Implementation of system changes to meet regulations

Source: Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2

Table 12 - Marketing Executive – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Employment • Job satisfaction • Opportunity to make use of creative talents • Career development • Salary + other compensation	• Reputation management • Brand recognition • Customer awareness • New and additional business (indirect)

Source: Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2

Table 13 - Stockholder – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Return on investment (ROI) • Dividends • Capital appreciation	• Source of capital • Market liquidity • Accountability

Table 14 - Rating Agency – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Revenue • Client portfolio completion	• Reputation • Stamp of approval • Risk level determination

Table 15 - The Public – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Loans and source of capital • Financial system stability • Economic growth • Taxes generated by business activities	• Positive public perception

Table 16 - Local Communities – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Source of employment • Taxes paid to local municipality • Environmental support activities • Neighborhood volunteer time	• Employees • Existence of branch offices • Source of customers and clients

Source: Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2

Table 17 - Change Execution Team – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Senior management / C-level support • Change execution mandate / backing • Resources (monetary & non-monetary) • Employment • Job satisfaction • Career development • Salary-type compensation • Opportunity to use one's process improvement and change management talent	• Change management process and procedure development • Execution of strategic objectives • Process improvement • Streamlined enterprise systems

Source: Bank of America Corp., Mid Year 2010 Investor Fact Book, 2010, p. 2

Table 18 - Debit Card Partner – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Advertising and promotion • Airline customers	• Debit card fees • Customer loyalty

Table 19 - Endorsing Organization – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Royalty payments	• Bank service endorsements • Mailing lists of potential customers • Deposit and other product & service advertising

Source: Bank of America Corp., Form 10-K, 2009, p. 127

Table 20 - Regulatory Body – Value Exchange

Value Expected from the Enterprise	Value Contributed to the Enterprise
• Compliance with applicable banking and financial institution regulations • Contribution of fees to FDIC insurance fund • Holding of funds at or above the minimum capital level required • Compliance with overdraft fee limit regulation • Adherence to restrictions on proprietary trading	• Ability to operate • Deposit insurance • No fines or penalties to pay • Compliance with applicable banking and financial institution regulations

Source: Federal Deposit Insurance Corporation; Bank of America Corp., Form 10-K, 2009, p. 175; Mid Year 2010 Investor Fact Book, 2010, p. 45

Above templates provided by the MIT Lean Advancement Initiative

4.5.1. Stakeholder Value Exchange Chart

Table 8 through Table 20 offer a solid summary of the value provided to and received from the enterprise for each stakeholder. However, this does not offer a picture of where disconnects exist. Providing a visual or graphical representation provides much more insight into the value provided vs. the value received by each stakeholder. One such plot is presented below in Figure 9, which plots the importance of each stakeholder to the enterprise or how much value the enterprise receives from a given stakeholder against the value the enterprise provides to each stakeholder. Please note that for the graph below, the value received vs. the value provided by the enterprise is in terms of Bank of America as a whole rather than specifically in the context of California Northwest.

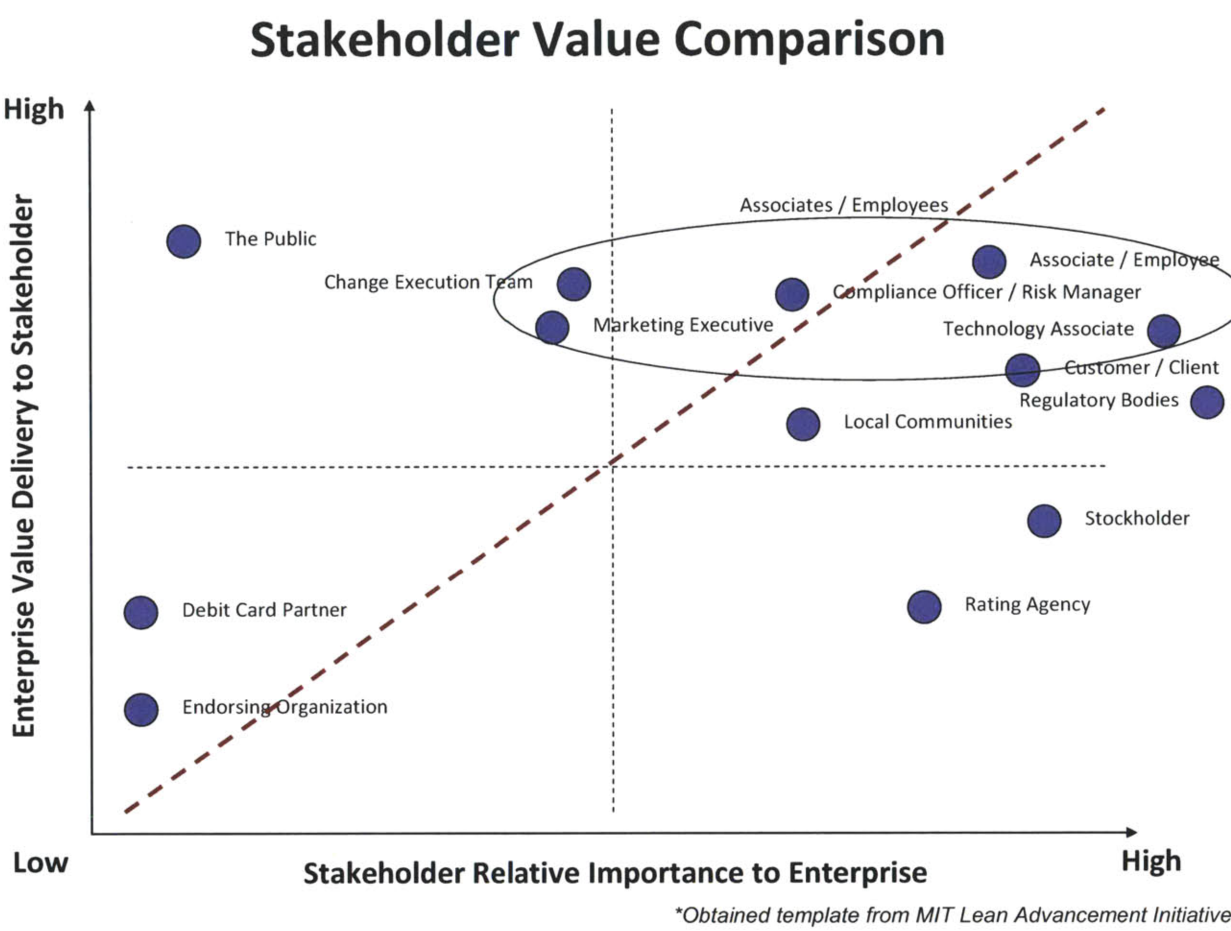


Figure 9 - Stakeholder Value Comparison

Figure 9 above maps each stakeholder based on the stakeholder's importance to the enterprise and how much value the stakeholder receives in return. I used the information in Table 8 through Table 20 above to determine the appropriate locations for each stakeholder on the graph, indicated by a blue dot and the corresponding stakeholder name. In the graph, the red dotted diagonal line represents equilibrium where the value provided (relative importance) to the enterprise by a given stakeholder located on that line is equal to the value the stakeholder receives from the enterprise. Here the enterprise is Bank of America Corporation rather than only the California Northwest region. In an ideal situation, all stakeholders should be located on the diagonal dotted line. However, as seen in Figure 9 this is not the case. Stakeholders located below the dotted line provide more value to the enterprise than they receive in exchange. Stakeholders located above the dotted line receive more value from the enterprise than they provide in return. The greater the distance a stakeholder is located from the red line, the greater the disconnect that exists between value provided and value received. Such a situation has the potential to result in tension between the enterprise and the unfavorably positioned stakeholder.

Examining the graph in Figure 9 provides a number of key insights. When identifying the different stakeholders, I split the Associate group based on specific roles into marketing executives, technology associates, risk managers, etc. This allowed me to understand and accurately place each associate stakeholder type. The result is that still as a whole, all the individual associates are grouped together and are fairly well balanced in terms of their importance to the enterprise vs. the value received in exchange. This is shown by the oval circle highlighting the associates grouped together in Figure 9 above and by the placement of the oval's center right on the dotted diagonal line.

Further examining the graph, the outlying stakeholders offer an interesting analysis. The public as a stakeholder I argue receives significantly more value from Bank of America than it provides to Bank of America. Overall, BAC offers a source of capital and loans to the public, provides financial system stability, generates revenue for the government in the form of taxes paid, and facilitates economic growth. Regardless of where Bank of America has a physical presence and whether or not specific individuals use the Bank's services, the public as a whole stands to benefit. In return however, I argue that BAC receives very little value from the public as a stakeholder group. Only those individuals that are customers or who use Bank of America's services and facilities provide material value to the Bank. An individual who does not have a deposit account, mortgage, or credit card from Bank of America and who does not use a BAC ATM arguably provides little to no value in return to the Bank.

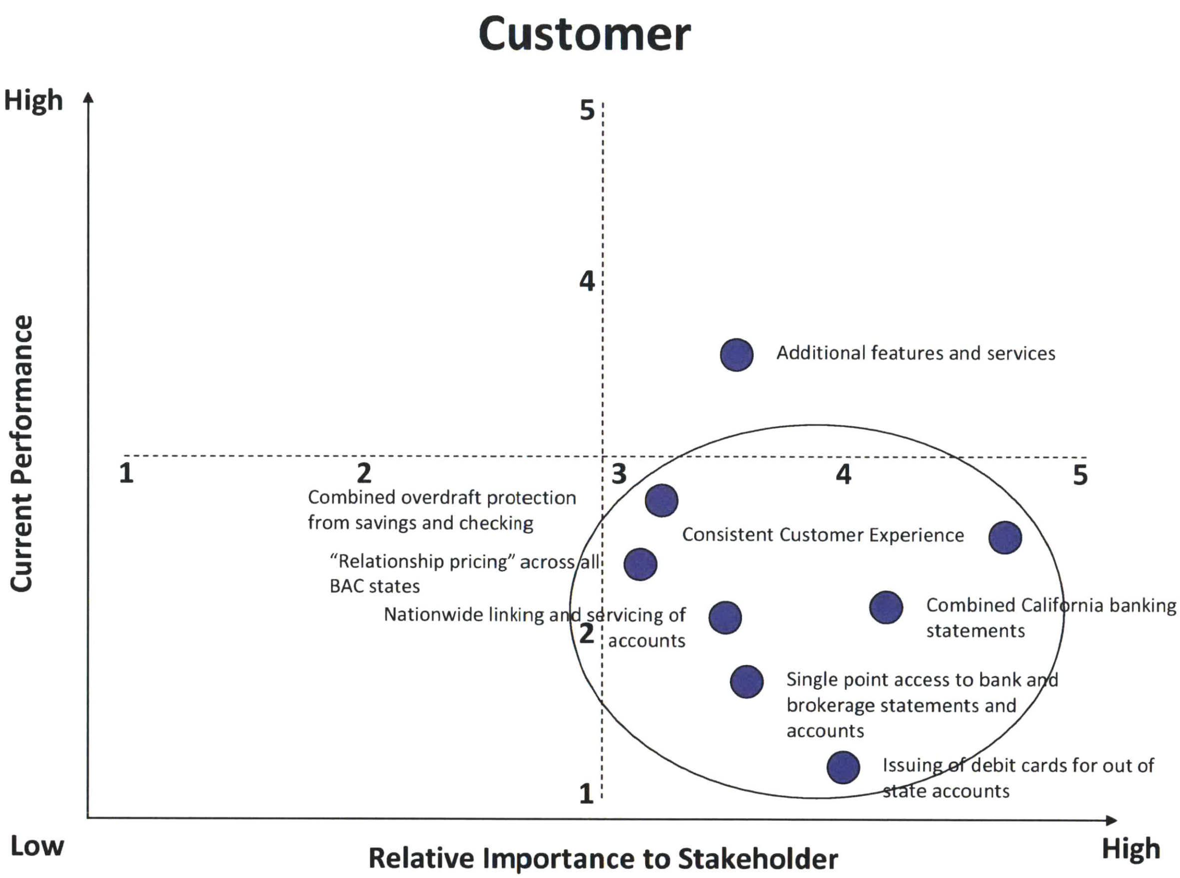
The other outlying stakeholder group on the other end of the spectrum is stockholders. While not as great as for the public, I argue that a significant disconnect exists between the value stockholders provide to and receive from the enterprise. Bank of America receives tremendous value from its stockholders and views them as a critical, if not the most critical stakeholder. Shareholders at minimum provide Bank of America with market liquidity, capital, and even a sense of purpose and accountability. Without the support and backing of its shareholders, BAC would find itself in a tremendously adverse position. The value that a given stockholder or investor receives from Bank of America I argue is significantly less in comparison. As both individual and institutional investors tend to diversify their portfolios of stock holdings, Bank of America might be just one of a handful of investments. Consequently, while a drop in stock price or an adverse action taken or incurred by Bank of America will hurt a fund's or an individual portfolio's performance it will not have devastating consequences for investors as a whole. Granted there are exceptions such as employee profit sharing plans, executives with a sizable portion of their compensation in Bank of America stock, institutional investors who own a large amount of Bank of America stock, etc. But overall, for investors BAC is just one of many holdings while for Bank of America collectively there is only one group of stockholders.

4.5.2. Stakeholder Value Performance vs. Importance Charts

Figure 9 and the analysis above examine each stakeholder group in the context of the enterprise, specifically the value exchanged between the enterprise, Bank of America, and each stakeholder. Further, the graph also presents a comparison of the various stakeholder groups amongst one another. While important, this only provides an outside view of the different stakeholders and does not look internally at each stakeholder group, specifically at the stakeholder needs / values level. Understanding the individual stakeholder needs is important so as to know which one(s) to focus on during a transformation. One such approach is to understand which needs or values are most important to a given stakeholder and how well those needs are met by the enterprise. Such is part of the ESAT methodology, specifically the exercise is "assess stakeholder value delivery", which is part of the third ESAT step, "Step 3: Construct Current State Perspectives (Nightingale, Stanke, and Bryan, 2008, p. 38-39)."

Figure 10 through Figure 12 below plot the importance of each need to the stakeholder against how well that need or value is met. Those values located in the bottom right quadrant are most problematic in that they are of high importance to a given stakeholder but are not currently delivering significant value. Such stakeholder values should be the focus of or at least strongly considered during a transformation initiative. In contrast, those values located in the top right quadrant of a given graph are also of high importance to a given stakeholder but are met by the enterprise. Consequently, aside from seeking to maintain the status quo, these values should not be the focus of a transformation initiative.

Please note that for each graph below, the stakeholder needs / values presented are specific to the California Northwest transformation. I presented these rather than overall stakeholder needs so as to analyze and understand whether they are truly important for each stakeholder and whether each value is indeed insufficient or lacking in the current enterprise state. Further, I only offer three stakeholder graphs, one each for the Customer, Associate, and Stockholder. To accurately represent the locations of the individual stakeholder values I relied on input from Bank of America executives involved with the California Northwest transformation. The executives that I had access to are hierarchically removed from the remaining stakeholders. Therefore, gaining sufficient insight into the relative importance / current performance of any stakeholders beyond these three was not feasible.



**Obtained template from MIT Lean Advancement Initiative*

Figure 10 - Customer – Stakeholder Value Delivery
Source: Positions provided by Jonathan Skvoretz, BAC Change Management Executive, November 2010

Figure 10 above presents a plot of the stakeholder values / needs specific to the retail deposit customer at Bank of America. While the portrait presented is that of a retail deposit customer regardless of the customer's physical and account location, each of the stakeholder values specified are specific to the California Northwest transformation. The values are not tied to business as usual aspects such as customer satisfaction, check deposit time, etc. With the exception of "Additional features and services", each of the values presented falls within the high importance, low current performance quadrant. This indicates that the stakeholder needs that the California Northwest transformation is seeking to meet such as "Issuing of debit cards for out of state accounts" and "Combined California banking statements" are in fact valid needs.

Although Figure 10 lends support to the CANW transformation from a stakeholder needs perspective, the information was provided to me after senior management and the steering committee laid out the case for the transformation and while the transformation assessment phase was under way. Such is the case as my research topic was only identified after the CANW transformation had already begun. Consequently, even though the individual stakeholder value positions were provided to me by an executive who is not involved with the CANW transformation, the simply nature of having been exposed to the reasons behind the transformation I argue has the potential to present a bias when analyzing the stakeholder values. I am not implying that a bias exists. Rather, I am simply pointing out that all but one of the retail banking customer values specific to the California Northwest transformation were placed in the high importance low performance quadrant. Perhaps the graph in Figure 10 might be different had this exercise been independently completed prior to the start of the California Northwest transformation.

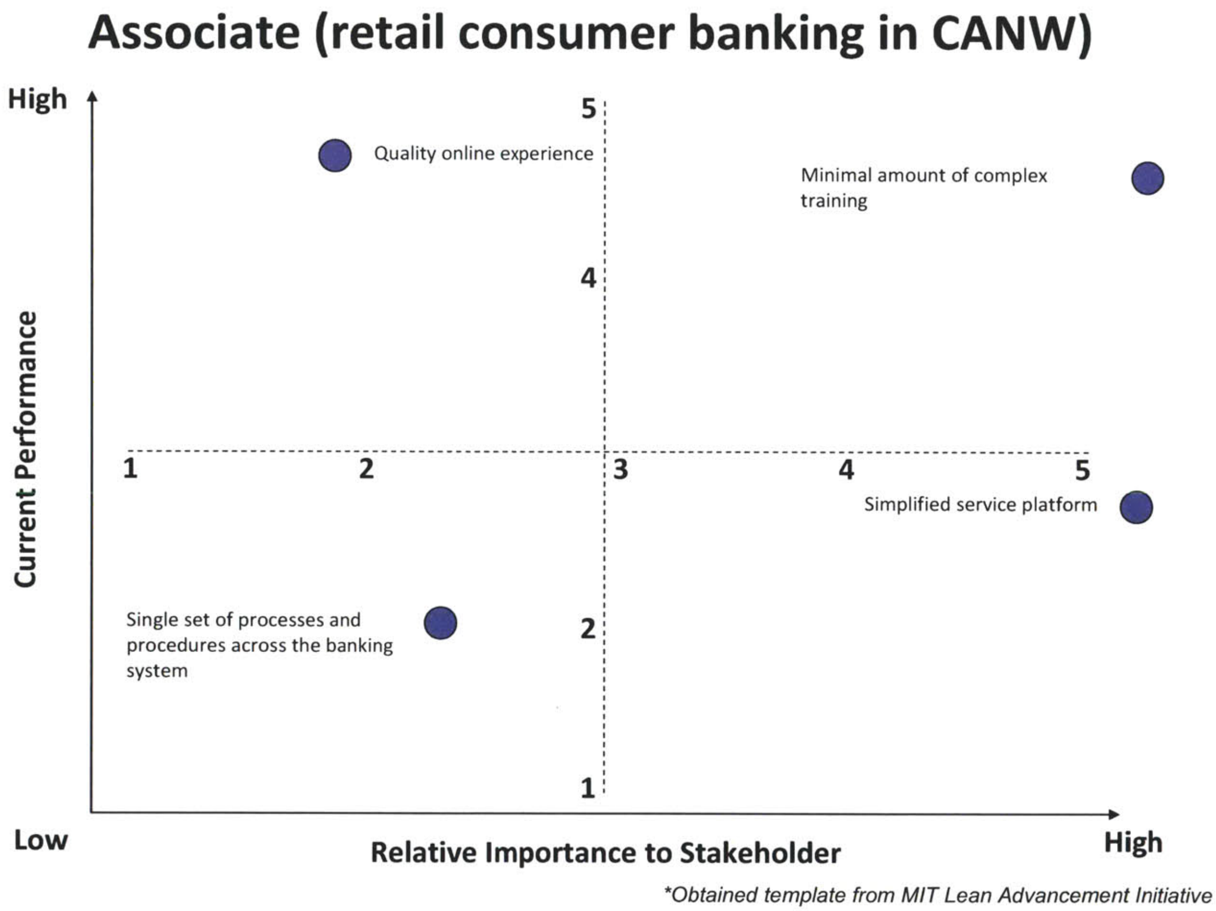


Figure 11 - Associate – Stakeholder Value Delivery
Source: Positions provided by Tracie Davis, CANW Transformation Program Office, December 2010

When considering stakeholders, a critical stakeholder group that a change management team must evaluate is that of employees, which are referred to as associates at Bank of America. However, simply recognizing associates as a single stakeholder group is not sufficient. While associates could be categorized as those individuals that directly interact with and serve customers, associates, as a group, when decomposed include retail branch tellers, branch managers, customer service representatives, etc. Each of these associate sub-groups has individual needs and values that vary and have different relative importance vs. current performance positions. For example, the value "Single set of processes and procedures across the banking system" might have a higher relative importance for a customer service representative who works in a call center and services customers / clients across multiple regions. However, a "single set of processes and procedures across the banking system" is not as important to an associate who works at a retail branch office that primarily serves local customers / clients.

The size and scope of the California Northwest retail deposit banking sector limits the feasibility of breaking down associates into subgroups for this exercise. The number of associate groups that would result prohibits a quality evaluation. The same holds true for other large stakeholder groups such as customers / clients. Therefore, Figure 11 above presents an overview of the relative importance vs. current performance of high-level stakeholder values for a CANW retail banking associate. Nevertheless, recognizing the distinctions between individual types of associates is absolutely critical when developing and / or making the case for an enterprise transformation.

To that extent, insights can be extracted from the Figure 11, which focuses on the needs of the average retail consumer banking associate in the California Northwest region. As with the consumer / client needs, the needs for the BAC associate focus on those specific to the CANW transformation. What is interesting about the graph is that each of the four quadrants holds a single stakeholder value. As such, half of the associate needs have a high current performance and only need is located in the high importance low current performance quadrant. Looking individually at the associate stakeholder values, two interesting insights emerge. First, the need "Single set of processes and procedures across the banking system" is located in the low performance and low importance quadrant. While the low performance component makes sense given that this is a stated need that the CANW transformation intends to meet, the low importance raises the question of why focus on this need. However, when viewed in the context of a single associate in the CANW region vs. an associate that serves customers across the entire banking system, this arguably makes sense. Consequently, the need / value position based on importance is heavily dependent on the type of associate whose stakeholder needs are analyzed.

Looking at "Simplified service platform", which is in the high importance low performance quadrant, is further insightful. As before, the current performance is low which provides backing for the transformation initiative. However, relative importance in this case is extremely high. As a "Simplified service platform" would benefit all associate stakeholder types, both within and outside CANW, I argue that this high importance is logical in comparison to the low importance of the "Single set of processes and procedures across the banking system", which focuses only on those associates that need to service customers across the entire banking system.

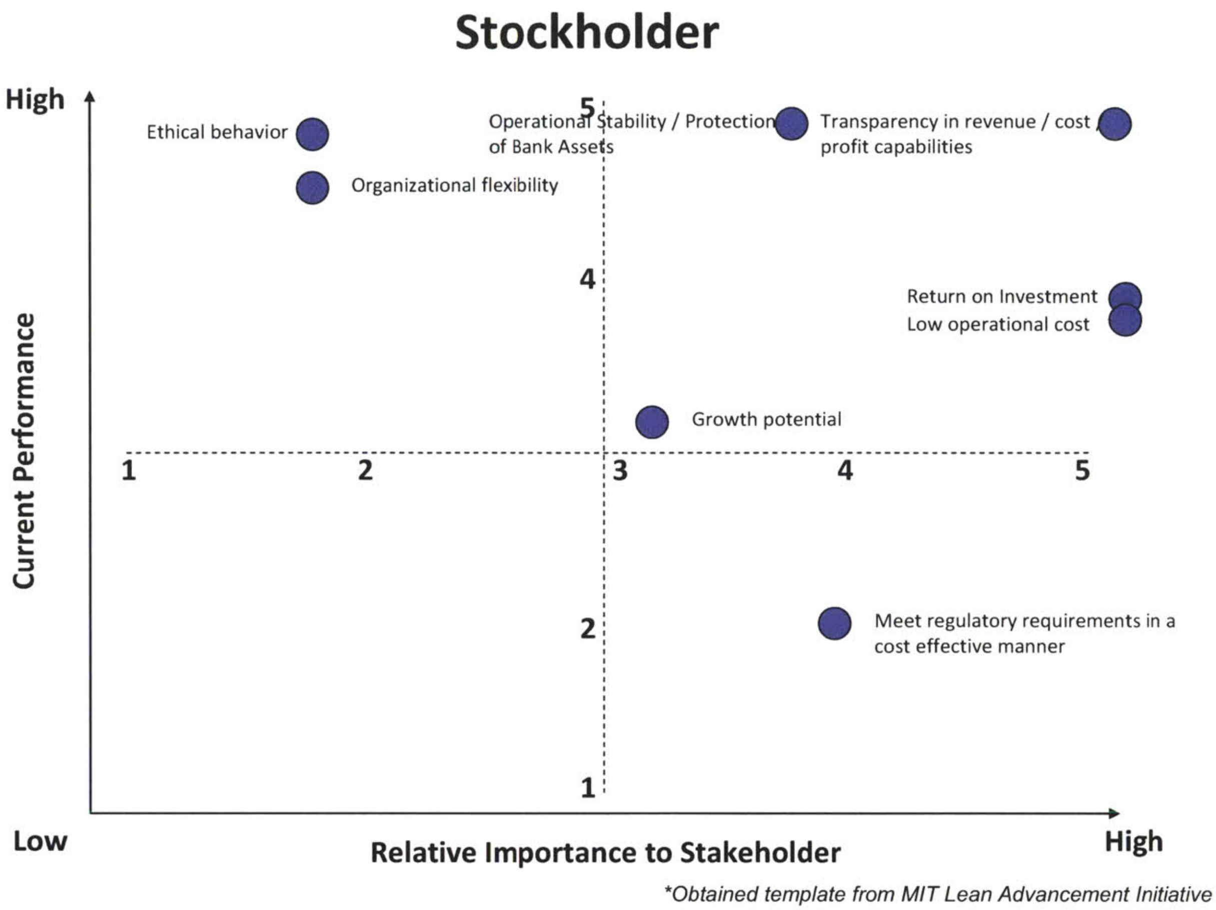


Figure 12 - Stockholder – Stakeholder Value Delivery
Source: Positions provided by Tracie Davis, CANW Transformation Program Office, December 2010

Often emphasized by Bank of America executives is that the California Northwest transformation is primarily undertaken for the benefit of the Bank's stockholders (McKinney, November 2010). Therefore, evaluating the relative importance vs. current performance of the individual stockholder needs / values is critical. If stockholders make up the primary stakeholder group whose needs the CANW transformation is seeking to fulfill then I argue that their stakeholder needs should be unfulfilled prior to the transformation.

Reviewing Figure 12 reveals that seven out of eight stakeholder values are located in the top half of the graph, which indicates a medium to high current performance. Decreasing operational risk or increasing "Operational stability / protection of bank assets" as presented in Figure 12 is the key stockholder need acting as a justification for the transformation. However, on the chart it is located at the highest end of the current performance scale, which is shared by only two other stakeholder values and implies that there is high operational stability or low operational risk and that this shouldn't necessarily be a significant focus of the transformation.

Looking at the other end of the chart is the stakeholder value "Meet regulatory requirements in a cost effective manner," which has a low current performance. The position of this stakeholder value is inline with the Bank's desire to be able to efficiently implement new or updated regulatory requirements across BAC's network (Skvoretz, December 16, 2010). Nevertheless, this is the sole stakeholder value located within the medium to low current performance half of the stockholder chart. The notion of the stockholder as the primary beneficiary of the transformation I argue can be brought into question when an analysis of the underlying needs / values reveals that most have a medium to high current performance.

4.6. Stakeholder Analysis Discussion

As presented earlier, Bank of America considers stakeholders and their needs and values as part of its CANW transformation process. Critical stakeholders including associates (employees), customers & clients, and technology associates are identified. Further, the needs of these stakeholders are highlighted and communicated in assessment documents prepared by executives assigned to the CANW transformation. On the surface, such consideration and understanding would seem to imply that during a transformation Bank of America focuses on stakeholder needs and requirements and makes a concerted effort to identify those needs and requirements. However, a closer examination reveals holes and gaps. While key stakeholders are identified and their needs recognized, the list only appears to scratch the surface. Many important stakeholders including regulatory bodies, local communities, and the change execution team itself are either unidentified or minimally discussed in the CANW assessment documentation as far as I have been able to determine. In contrast, stakeholders such as regulatory bodies are frequently mentioned in Bank of America annual reports. Over half a dozen regulators and industry regulations are mentioned in the Bank's 2009 Annual Report (Bank of America Corp., Annual Report, 2010) alone but are rarely directly presented in the CANW assessment document overviews that I reviewed. The August and September 2010 CANW Steering Committee presentations and the CANW Transformation Executive Framework Review only reference a single financial regulation (Steering Committee, September 2010, p. 7). While arguably many stakeholders and stakeholder needs go without saying, it is critical that executives consider all stakeholders and all of their needs. Stakeholders and needs not considered can result in missed opportunities, the forfeiture of value, and potentially the creation of problem stakeholders.

Through discussions with Bank of America executives, it became evident that meeting the needs of all stakeholders was not the primary driver behind the CANW transformation. I was informed that Bank of America does conduct extensive voice of the customer (VOC) research and does seek to understand the state of associate satisfaction. However, this research is conducted by business as usual teams and not by the change execution team. To this extent, I have not seen in the CANW assessment documents any reference to customer interviews, associate satisfaction surveys, or any other such research conducted. I am not implying that this research was not conducted or that the arguments made in the assessment material are baseless, but rather that I am unable to tie back the stakeholder needs and values identified to any particular data collection and analysis initiative. Understanding and tracing back from the assessment material how the customer needs were ascertained is critical. References indicating the method by which the stakeholder values were obtained must be presented. Without such references, the underlying understanding of the CANW stakeholders and their needs and how those needs tie into the assessment analysis is brought into question. Further, if no references to studies or observations are made then I question how important a stakeholder value analysis is to the CANW transformation.

In a conversation with an executive leading a segment of the CANW transformation, the secondary focus on stakeholder values as a justification and basis for the transformation became apparent. As stated to me, the principal focus of the CANW transformation is to decrease operational risk at Bank of America for the benefit of its stockholders. In this regard, there is a single stakeholder and a single need that the transformation is seeking to meet. The question then arises: what about the other stakeholders and what about their needs? In my conversation with the same executive, it became apparent to me that while considered, other stakeholder needs were of secondary importance and consideration to the needs of stockholders (McKinney, November 2010).

Through this and other conversations, two insights into the justification behind the CANW transformation emerged. First, executives with whom I spoke could not tie stakeholder needs and values back to specific stakeholder interviews, research, surveys, etc. Although I was told that such research is known or assumed to exist. This supports my earlier suspicions from the assessment material that stakeholder needs appeared to be anecdotal. Second, I argue that it illustrates a lack of concern and focus on stakeholder values and the needs of each stakeholder presented. Bank of America primarily focuses only on one stakeholder group, which is that of the stockholder. While arguably, at the end of the day, the stockholder might very well be the primary stakeholder that the Bank exists as an enterprise to benefit, it is by no means the only stakeholder. Although not equal in value received and provided, the change execution team should just as much consider the Bank's employees, customers / clients, regulatory bodies, the public, etc. But why is this critical? Why should the Bank in a transformation focus on the needs of multiple stakeholders that are not the primary driver behind the initiative?

Focusing on all stakeholders and structuring a transformation that seeks to maximize value for all stakeholders ensures that no stakeholders become problem stakeholders. Professor Edward Crawley, the Ford Professor of Engineering at MIT defines problem stakeholders as "stakeholders [who] give you resources, but get little or no benefit" in return (Crawley, October 2009, p. 29). In the CANW transformation numerous stakeholders are adversely affected. Customers need new debit cards and account numbers, associates need retraining, technology teams face an increase in tasks that must be performed to implement the transformation while still working on their normal day-to-day assignments, etc. All of these stakeholders can quickly turn into problem stakeholders should their needs not be met or if they feel unsatisfied. For example, if the Bank does not adequately and promptly inform its customers regarding upcoming changes due to the CANW transformation those customers might seek to move their business elsewhere. Technology associates not given proper support or recognition might not sufficiently prioritize a transformation system update. To avoid any such scenario, the change management team assigned to a transformation must focus on and consider the needs of and seek to maximize value for all stakeholders.

4.6.1. Multiple CANW Attempts

Nevertheless, the question emerges of whether a lack of consideration for the needs of all stakeholders can truly adversely affect a BAC transformation initiative. I argue that one can look back at the history of the California Northwest transformation for justification. The current transformation, which commenced in the summer of 2010, is the third attempt at decreasing the operational risk poised by the CANW region. Upon commencement of each transformation attempt a stakeholder need was identified and the change execution team sought to meet that need but an immediate urgency was not there (Stetsky, 2010). In speaking with executives at Bank of America, the impression I received is that the operational risk of a separate California Northwest platform and the need to decrease that operational risk so as to meet the needs of stockholders as the primary stakeholder group was not sufficient enough to justify the first two CANW transformation attempts (Stetsky, 2010). In this regard, senior management believed that there were other stakeholder needs of higher priority than a decreased operational risk for stockholders, which was the justification for the CANW transformation. I do not have evidence to suggest that a lack of consideration for the needs of all stakeholders led to the cancellation of the first two attempts at transforming the California Northwest region. However, as the CANW cancellations resulted from the desire to focus on other stakeholder needs of higher priority, I argue that those needs were not properly factored into the first two CANW transformation attempts.

4.6.2. Transition vs. Transformation and Stakeholder Values

Further insight regarding the consideration of stakeholder values emerges when the structure of transformation initiatives such as CANW is compared to the structure of transition initiatives at Bank of America. In transition, senior management, typically the CEO makes a public announcement to investors and the general media about an acquisition or divestiture. Ralph Katz, Senior Lecturer at the MIT Sloan School of Management, might characterize an acquisition as a "marshaling event". He states that "…a 'marshaling' event, that is, an event that significantly arouses people so that they are finally willing to do something to redirect their efforts and attention (Katz, 2004, p. 130)." The public nature of and the specification of a completion date in the announcement makes it "real" for BAC, all internal parties involved, and all stakeholders affected. In a lecture at MIT, Ralph Katz often emphasized the need to "make it real" to develop momentum for a product or project (Katz, January 2010). As he states in his book, *The Human Side of Managing Technological Innovation*:

> "It is not the collection of data or the presentation of analyses, logical arguments, or forecasts per se that typically stirs people to action. It is, instead, the emotional repercussions of seeing or feeling the reality of the data, information, or situation that awakens or persuades them (Katz, 2004, p. 131)."

A fellow student, Blade Kotelly, quoted in an online article, summarizes Ralph Katz's argument. "When something is made real to your audience, you can change behaviors. When it's not real to your audience, wrong and disastrous decisions get made (Rosenbaum, 2010)."

With transition an internal and external (public) mandate exists and there are real consequences should the initiative not be finished on time or meet expectations. My understanding of the mentality at the Bank is that everyone knows the transition must be completed and, whether supportive or not, works to complete the transition and meet the stated goals.

In contrast, no such "all hands on deck" mandate exists for a transformation. While the focus of a transition is the integration of an acquired company or the divestiture of a business unit, which are external events, the focus of a transformation is the improvement of an existing line of business, which is an internal event. Consequently, any mandate originates from an internally focused event rather than from an externally driven event. Senior management identifies an area for improvement, but at least initially, only announces the specific initiative to parties within the Bank. The result, I argue, is that stakeholders, especially associates at the executive level involved with the transformation are only accountable to themselves. No accountability to an external party and / or the public exists.

In contrast, when IBM undertook a large scale transformation in 2005, the Company made a public announcement regarding the initiative and its intentions. The May 2005 press release states "IBM today announced it plans to implement a series of restructuring actions designed to improve the company's efficiencies, strengthen its client-facing operations… The actions will accelerate progress toward more globally integrated operations… (IBM, 2005)"

For Bank of America, when undertaking a transformation initiative, gaining stakeholder buy-in is critical. The external mandate that exists with transition results in stakeholder buy-in regardless of the support or fondness of individual stakeholders – everyone knows that the transition must be completed. Without an external mandate during a transformation, each individual stakeholder group has to be brought on board and their support secured. Each stakeholder group must feel that it is gaining value from the transformation and know that it is in its best interest to support the transformation. Senior management, specifically the executives responsible for identifying, evaluating, and announcing a transformation initiative must work to identify the needs of all stakeholders affected, seek to maximize value for all stakeholders but without compromising the underlying justification for the transformation, and communicate to each individual stakeholder group the value to be gained.

Nevertheless, the primary reason for a transformation initiative must not be forgotten or lost. As stated in conversations with Bank of America executives, the primary driver behind the California Northwest transformation is the desire to decrease operational risk for the benefit of the Bank's shareholders. Therefore, if the need to decrease operational risk for stockholders did not exist, the CANW transformation might not be necessary and perhaps more significantly, no justification would exist for spending hundreds of millions of dollars to complete the transformation. Therefore, when seeking to increase value during the transformation for all stakeholders this must not be forgotten. The primary justification for a transformation must not be a tradable element. In a presentation on Concept Design and Tradespace Exploration, given by Dr. Donna Rhodes and Dr. Adam Ross of the Systems Engineering Advancement Research Initiative (SEAri) at MIT, this concept is presented. They argue that "In order to ensure a successful mission, the implied value proposition must be fulfilled (Rhodes and Ross, 2010, p. 23)." Once the primary driver is known and held constant then all the other stakeholder needs and values should be identified and maximized so as to provide the greatest possible value to all stakeholders. As discussed in a conversation I had with Jonathan Skvoretz, a change management executive at BAC, in terms of the CANW transformation, we argued that when considering the needs of and seeking to maximize value for all stakeholders, the primary driver behind the transformation, decreasing operational risk for stockholders must be held constant (Skvoretz, December 16, 2010).

While the goal is to maximize value for all stakeholders, although perhaps stating the obvious, the change management team must realize that not all stakeholders are of equal importance. Additionally, the value that a stakeholder group places on each of its needs is not the same. Consequently, while recognizing that the goal is to maximize value for all stakeholders, the change management team must work to prioritize stakeholders and seek to balance competing needs.

4.7. X-Matrix

The X-Matrix is a tool for enterprise systems analysis that is used as part of the Enterprise Strategic Analysis and Transformation (ESAT) methodology. However, the tool can also be independently applied to any enterprise transformation or change management initiative. When used, the X-Matrix assesses an enterprise's internal alignment, specifically answering the question "do an enterprise's metrics, processes, strategic objectives, and stakeholder values align?" Analyzing this alignment reveals processes that do not deliver the value desired by the enterprise's stakeholders and processes and strategic objectives that have no suitable corresponding metrics to track progress. Further, strategic objectives that do not trace back to specific stakeholder values are also revealed as a result of the X-Matrix (Nightingale, Stanke, and Bryan, 2008, p. 47-48).

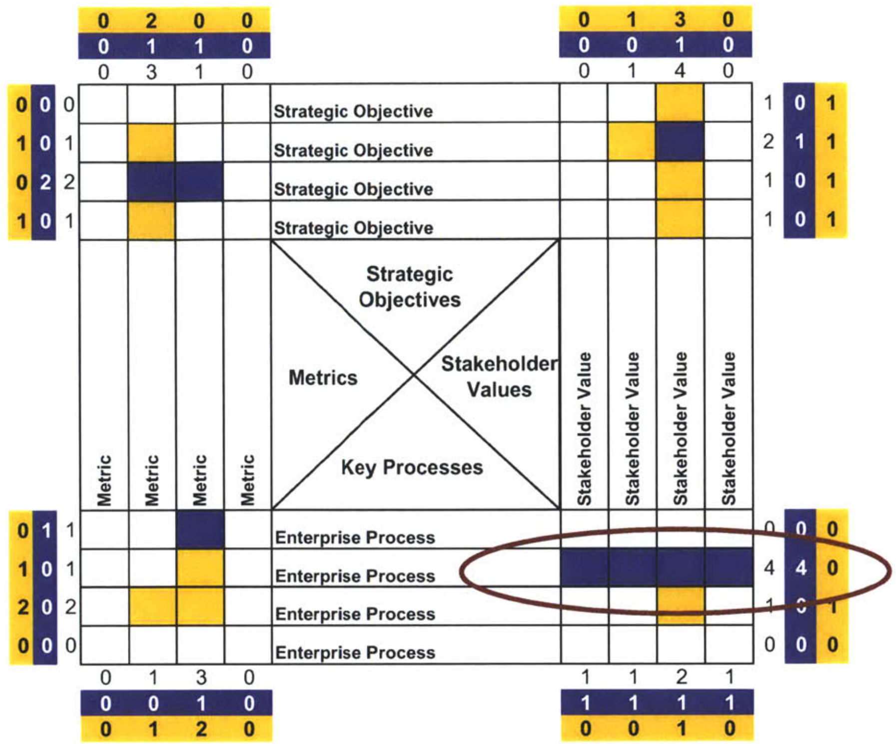


Figure 13 - Sample X-Matrix

Source: ESAT X-matrix template, MIT Lean Advancement Initiative (LAI)

Figure 13 is an example of an X-Matrix provided by the MIT Lean Advancement Initiative. Each quadrant of the figure assesses alignment between two aspects of the enterprise or transformation initiative to which the tool is applied. Starting with the top left quadrant and progressing clockwise, the graph assesses alignment between metrics and strategic objectives, strategic objectives and stakeholder values, stakeholder values and enterprise processes, and enterprise processes and metrics. As offered by LAI, where there is "strong correlation" between two attributes, the intersecting box is shaded blue while where a "weak correlation" exists between two attributes, the intersecting box is shaded yellow. For this exercise, I specifically focused on first order interactions where a direct correlation exists. While one might consider second-order effects as a justification for specifying a weak interaction between two elements, I did not do so for this exercise. As such, a white box may indicate the absence of any correlation between two elements or the presence of a second-order interaction. In summary, the more blue and yellow the better (Nightingale, Stanke, and Bryan, 2008, p. 47-48). For example the series of four blue boxes highlighted by a red oval indicates that that particular enterprise process is strongly aligned with each of the four corresponding stakeholder values.

When viewing the X-Matrix, where no correlation exists, one should ask whether an objective, metric, value, or process does indeed exist but was not identified and included in the X-Matrix analysis. After considering this, if an attribute was not overlooked, then the change management team should ask whether one or more corresponding objectives, metrics, values, or processes are needed or if the element with no corresponding attribute is not a critical focus and should instead be eliminated.

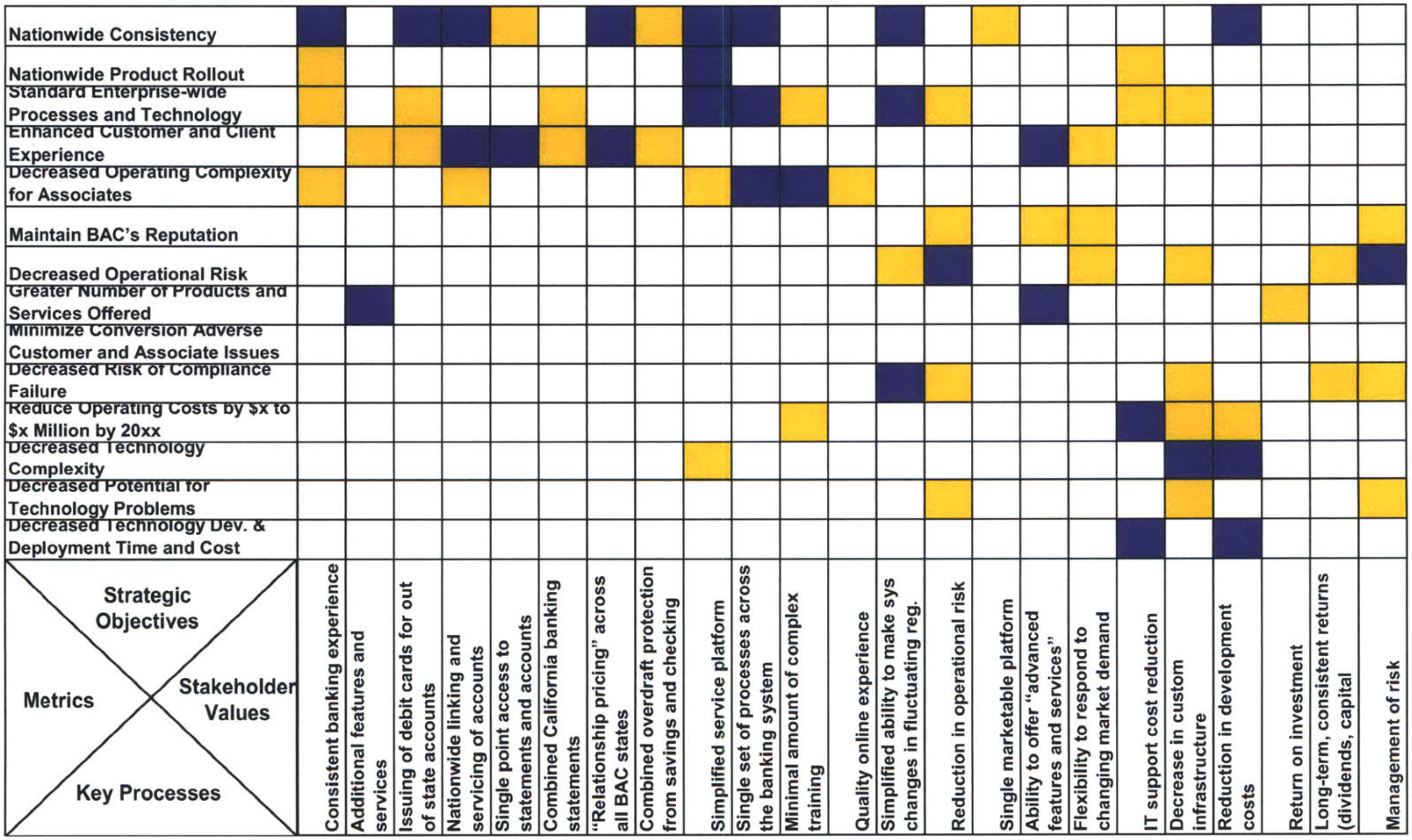


Figure 14 - X-Matrix: Strategic Objectives and Stakeholder Values

Figure 14 presents the top right quadrant of the X-Matrix, which maps the strategic objectives of the California Northwest transformation to the stakeholder values in relation to the transformation. Where a given stakeholder value is strongly tied to a strategic objective, the intersecting box is shaded in blue and where a strategic objective weakly maps to a stakeholder value, the intersecting box is shaded in yellow. Finally, when a given stakeholder value cannot be mapped directly to a specific strategic objective based on the information I have, I left the intersecting box blank.

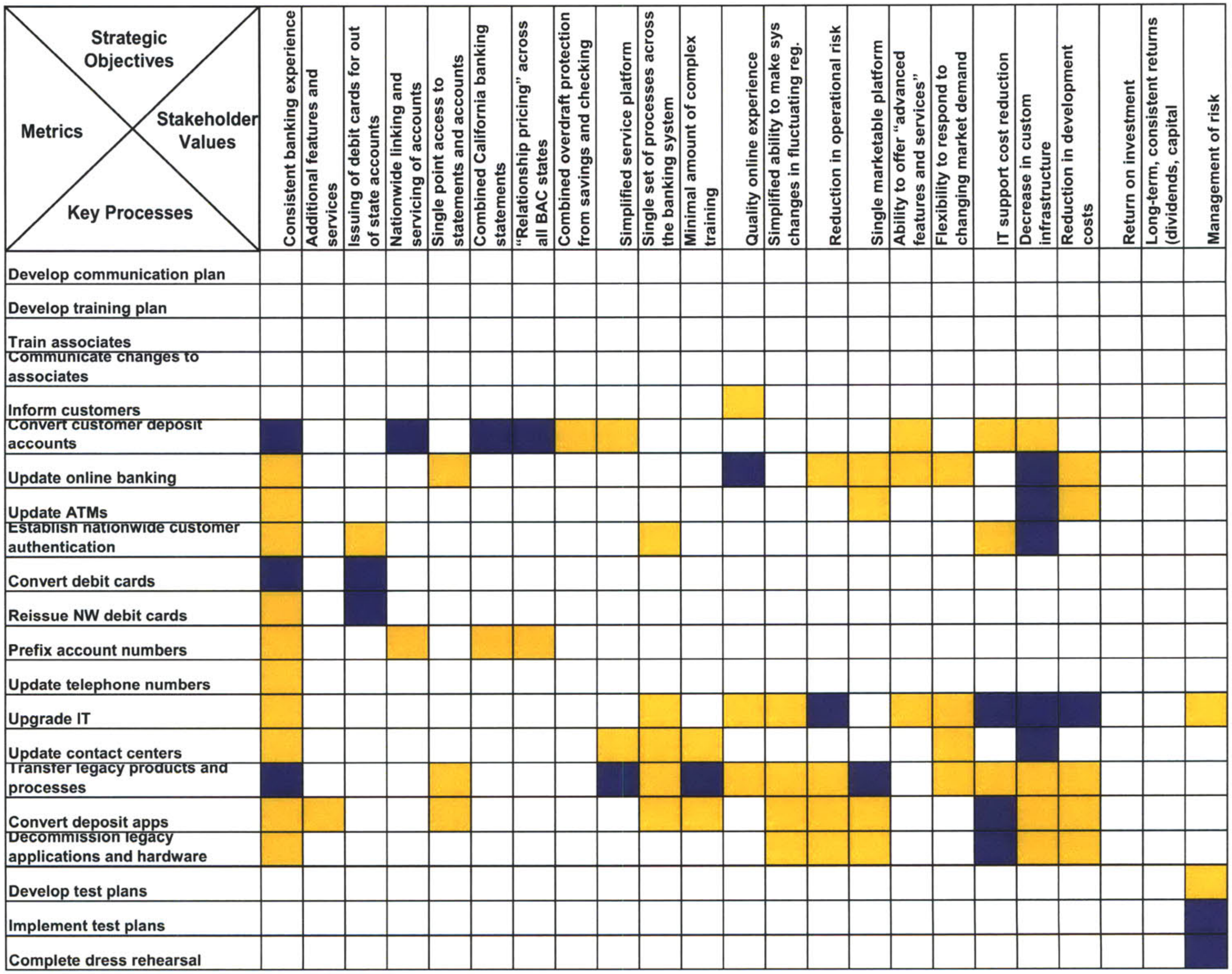


Figure 15 - X-Matrix: Stakeholder Values and Key Processes

Figure 15 above presents the quadrant of the X-Matrix that maps stakeholder values to the CANW processes. As with the other X-Matrix quadrants, a blue box indicates a strong mapping and a yellow box indicates a weak tie. A white or blank box illustrates the lack of a direct relationship between a given stakeholder value and CANW process based on the information I had access to. Worth mentioning again is that while numerous stakeholder values exist, the ones I present are specific to the CANW transformation.

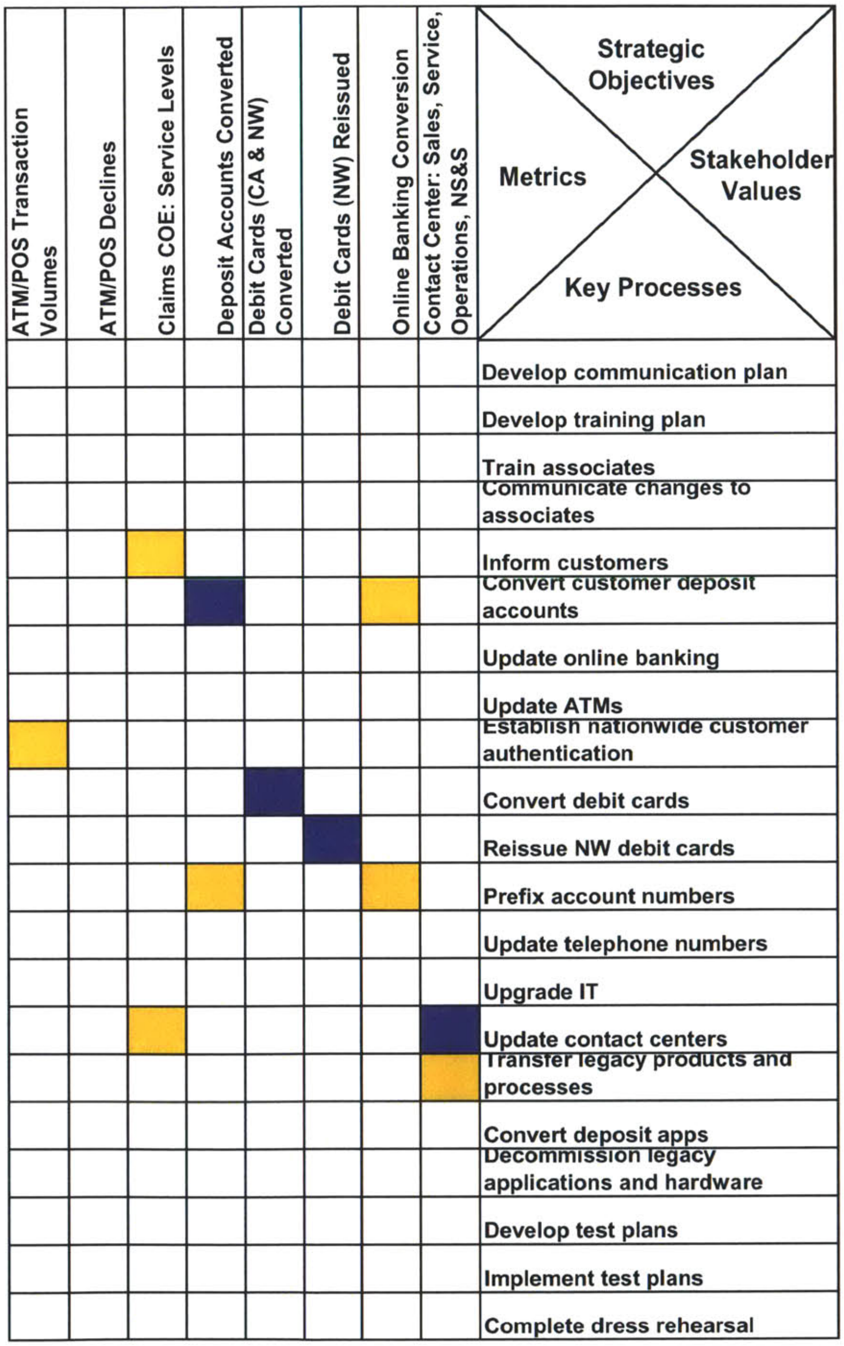


Figure 16 - X-Matrix: Key Processes and Metrics

Figure 16 offers insight into how well the key metrics used to track the progress of the CANW transformation map to those processes that make up the transformation. While Table 5 - Enterprise Metrics contains over two dozen metrics, due to the lack of detailed information available to me, I chose to focus only on the key metrics or those metrics that are of significant value for this X-Matrix analysis. As with the other quadrants, a blue box indicates a strong mapping, a yellow box indicates a weak mapping, and a white or blank box indicates that no direct correlation exists between a key metric and a given CANW process based on the material I reviewed.

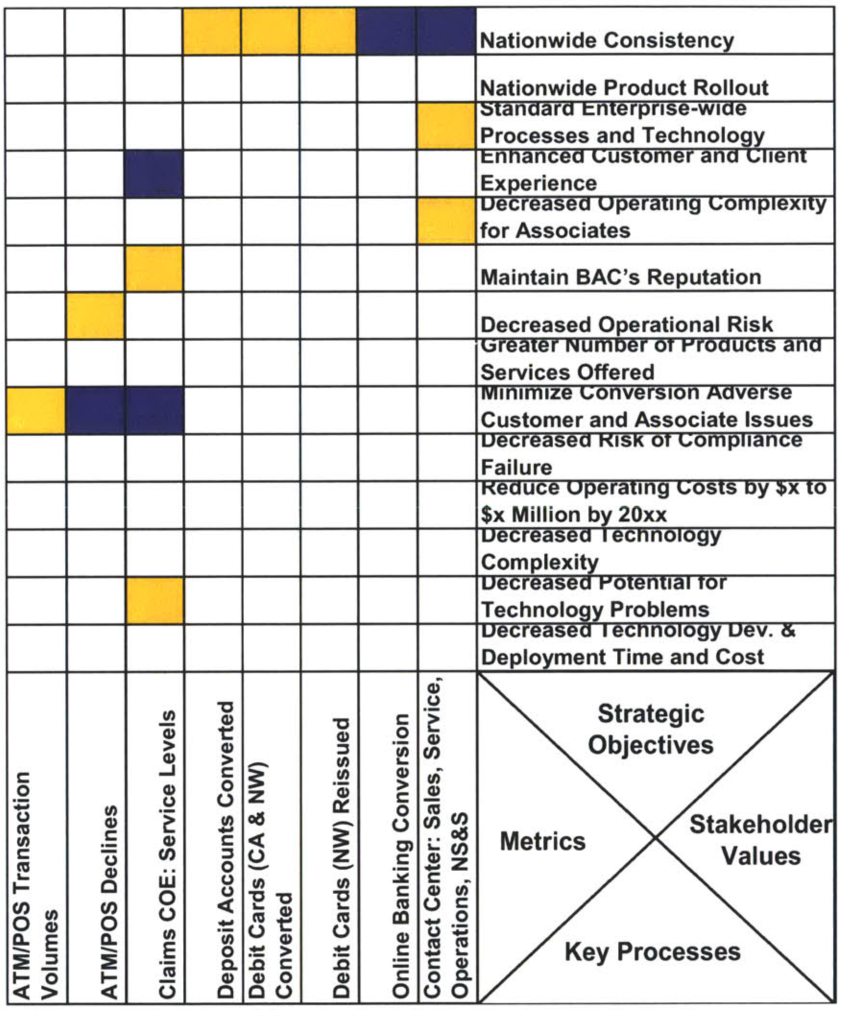


Figure 17 - X-Matrix: Metrics and Strategic Objectives

The last quadrant represented in Figure 17 illustrates the relationship between the key California Northwest transformation metrics and the transformation strategic objectives. Once again, a blue box indicates a strong correlation between a key CANW transformation metric and the corresponding strategic objective, a yellow box indicates a weak correlation, and a white or blank box indicates that I am unable to map a given metric to the corresponding strategic objective and vice versa based on my research.

4.8. X-Matrix Analysis and Revisions

To address process, metric, goal, and stakeholder value alignment gaps, I looked back and analyzed the previously presented X-Matrix to identify and fill-in these critical elements.

4.8.1. Strategic Objectives vs. Stakeholder Values

The Strategic Objectives vs. Stakeholder Values quadrant is the most complete quadrant of the original X-Matrix. For the most part, the strategic objectives map to the stakeholder values. However, gaps appear to exist that need to be closed. A critical strategic objective listed is "Minimize Conversion Adverse Customer and Associate Issues", which is included to minimize the chance that the CANW transformation interrupts business as usual. While an end goal of the transformation is the mitigation of operational risk, the risk the transformation itself presents must also be minimized. While properly stated, I have not been able to identify any corresponding stakeholder values that map back to this strategic objective. Two key stakeholders that would be directly affected by a system failure as a result of the CANW transformation are associates (employees) and customers / clients. Therefore, values from these stakeholders need to be identified and tied to the strategic objective "Minimize Conversion Adverse Customer and Associate Issues". To address the needs of these two stakeholder groups, I added the following stakeholder values (1) "Uninterrupted consumer retail deposit access", (2) "Uninterrupted consumer services", (3) "Continuous access to consumer accounts", and (4) "Uncompromised ability to service customers". These four stakeholder values I argue strongly map to the "Minimize Conversion Adverse Customer and Associate Issues" strategic objective.

Evaluating whether each stakeholder value maps to one or more strategic objectives, I argue that based on the material I've reviewed, the stakeholder value "Return on investment" does not strongly map to any identified strategic objective. "Return on investment", although a critical stakeholder value, I believe is a second-order effect of the CANW transformation. As a second-order effect, it does not completely fall within the scope of the CANW transformation and therefore should be removed from the list of stakeholder values.

The result is that each strategic objective maps to at least one stakeholder value and each stakeholder value maps to at least one strategic objective.

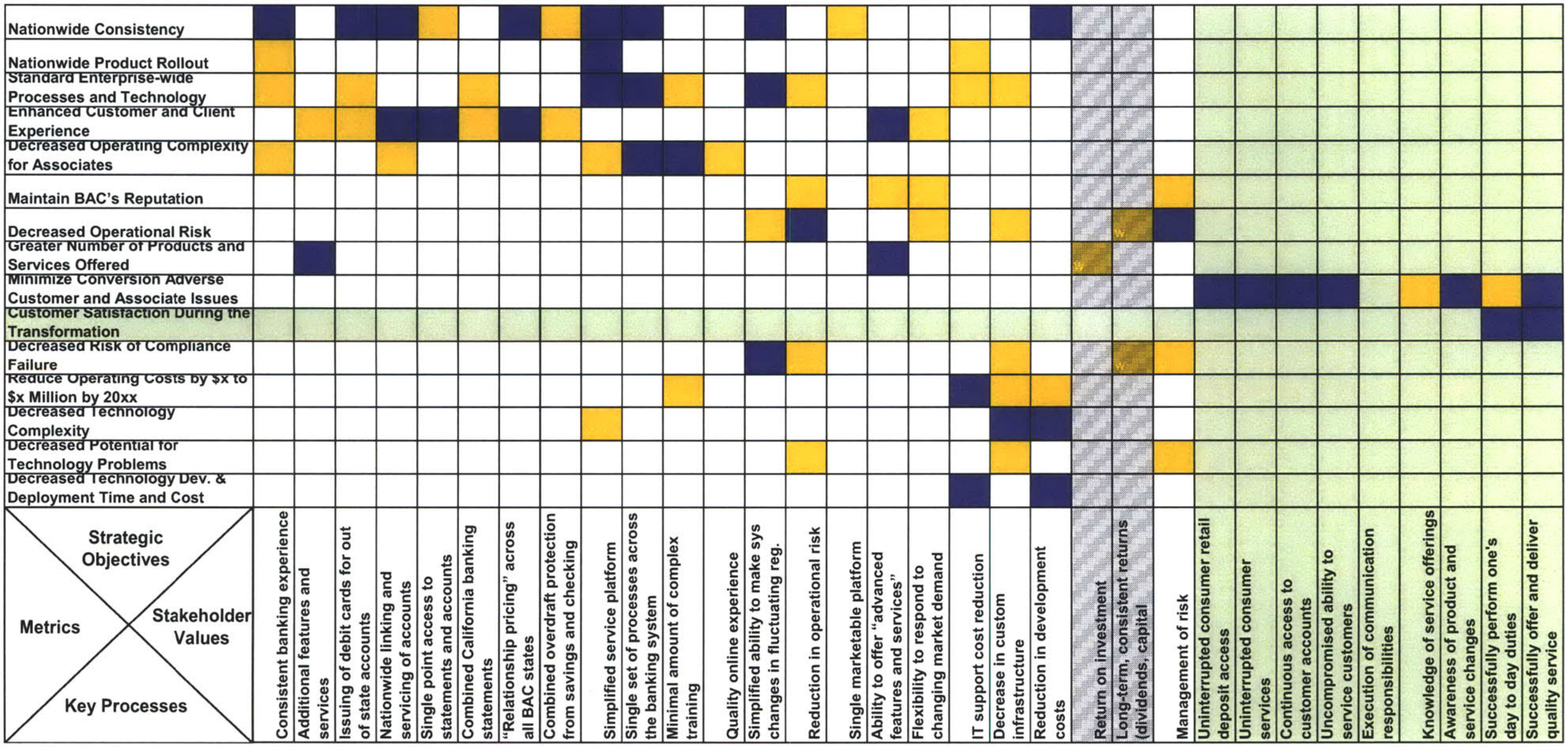


Figure 18 - Revised X-Matrix: Strategic Objectives and Stakeholder Values

Figure 18 presents an updated X-Matrix quadrant that maps strategic objectives to stakeholder values based on my analysis.

4.8.2. Key Processes vs. Stakeholder Values

The quadrant of the X-matrix mapping key processes to stakeholder values contains a number of apparent holes that must be filled to ensure that each stakeholder value is addressed by at least one CANW transformation process and that each key CANW process can be traced back to meeting one or more stakeholder values. Processes that can not be traced back to one or more stakeholder values must be eliminated or stakeholder values must be identified, added, and confirmed to benefit from the unmapped processes. Alternatively, it is possible that I have not uncovered sufficient information to adequately map each process to one or more identified stakeholder value(s). Therefore, these unmapped processes might well be further researched to ascertain whether in fact with an enhanced understanding they can be traced back to one or more existing stakeholder values.

The first set of processes for which there are no corresponding stakeholder values relate to communicating changes at the Bank to associates and customers. The specific communication processes are "Develop communication plan", "Train associates", "Communicate changes to associates", and "Inform customers". When such processes do not map to any identified stakeholder values, the processes should generally be eliminated as without benefiting one or more stakeholder values they do not serve a purpose. However, the criticality of these processes is obvious and the importance of adequately training associates and informing customers cannot be understated. Therefore, stakeholder values should be identified, formulated, and included for these four processes to map to. While such stakeholder values are perhaps obvious and one might question the reason for needing to explicitly state them, their inclusion will illustrate how these training and communication values map to both key processes and strategic objectives. Inclusion of all stakeholder values is necessary to fully understand the interdependencies that result. Consequently, I identified and added the following stakeholder values, "Execution of communication responsibilities", "Knowledge of service offerings", "Awareness of product and service changes", "Successfully perform one's day to day duties", and "Successfully offer and deliver quality service". All of these values map back to the training and communication key processes as illustrated in the revised X-Matrix in Figure 19.

To properly map these newly added stakeholder values back to the strategic objectives requires the addition of a new strategic objective, "Customer Satisfaction During the Transformation". Such a strategic objective is critical and, although perhaps a sub-objective, should be recognized in addition to "Minimize Conversion Adverse Customer and Associate Issues". A noteworthy interdependence that results is that the "Customer Satisfaction During the Transformation" stakeholder value now directly maps to the "Customer satisfaction level" metric and weakly maps to the "Customers notified" metric. Further, "Customer satisfaction level" is one metric, albeit with a delayed response, which can indicate the success of the process "Resolve undesirable emergent issues".

The other noteworthy stakeholder values are those that relate to a return on investment for shareholders, specifically "Return on investment", "Long-term, consistent returns (dividends, capital appreciation)", and "Management of risk". These stakeholder values, while important, as far as I have been able to ascertain, do not appear to map to any key processes. It is important to recognize however that these three stakeholder values exist as secondary effects. The stakeholder values "Return on investment", and "Long-term, consistent returns" are met as a result of the transformation and not as a result of any specific process that is part of the CANW transformation. While significant stakeholder values, I argue that they should not be included as a focus of the CANW transformation itself. "Management of risk" is also a stakeholder value that is met as a result of the CANW transformation itself. However, "Management of risk" must also map to a key process of the transformation, which is the monitoring and mitigation of the risk of the transformation to business as usual. As stated to me numerous times by BAC executives, during the course of the CANW transformation, the transformation itself poses considerable risk to the Bank. This is in part represented by the stakeholder value "Management of risk". However, I have only been able to identify a very limited set of processes that monitor and mitigate the risk to operations. Two activities carried out during the transformation have a direct impact on risk, "Implement test plans" and "Complete dress rehearsal." From my research, these appear to be one-time processes rather continual activities carried out over the life of the transformation for continual risk assessment and mitigation.

While overall risk management of the transformation itself is fairly complex and involves numerous processes, I believe that two additional processes should be recognized to further represent this necessary risk management initiative. They are "Transformation risk monitoring" and "Transformation risk mitigation". These processes together with the test initiatives will actively monitor the risk the transformation presents and will seek to mitigate any unacceptable risk that results. Should an actual problem occur, one additional process, "Resolve undesirable emergent issues", can be utilized to solve such problems.

The addition of these key processes and the resulting interdependencies is noteworthy as the processes directly map back to the new stakeholder values I added that relate to day-to-day operation during the transformation, specifically "Uninterrupted consumer retail deposit access", "Uninterrupted consumer services", "Continuous access to customer accounts", and "Uncompromised ability to service customers". When added earlier, these four stakeholder values only weakly mapped to two key processes. The addition of the "Transformation risk monitoring", "Transformation risk mitigation", and "Resolve undesirable emergent issues" processes strengthens this alignment.

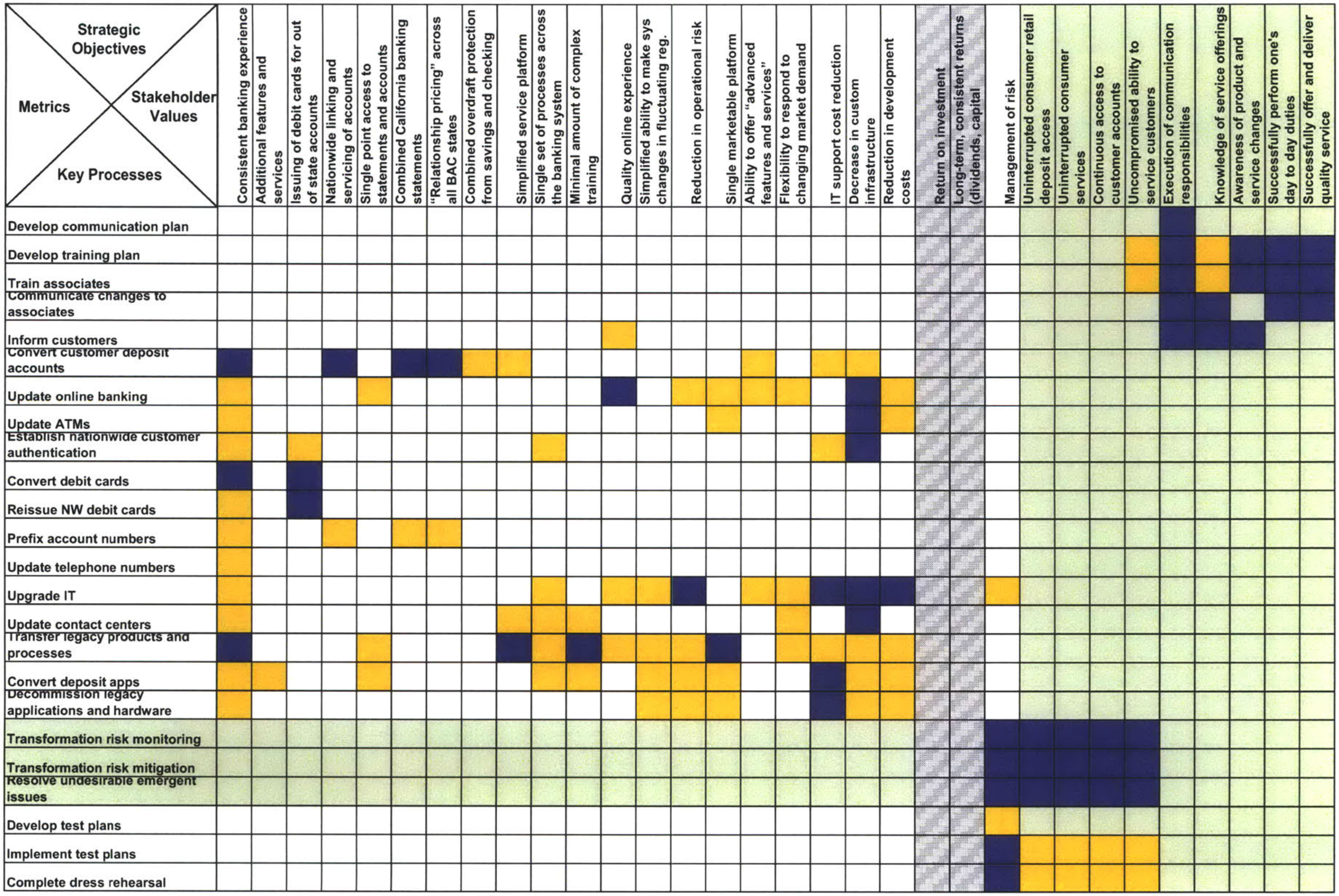


Figure 19 - Revised X-Matrix: Stakeholder Values and Key Processes

Figure 19 presents an updated X-Matrix quadrant that maps stakeholder values to key processes based on my analysis.

4.8.3. Key Processes vs. Metrics

Turning to the metrics vs. key processes quadrant, the mapping of metrics to processes appears to primarily exist on a one-to-one basis. For example, the process "Convert Customer Deposit Accounts" maps to "Deposit Accounts Converted" and "Convert Debit Cards" maps to "Debit Cards (CA & NW) Converted". While such a mapping is not necessarily specified for each process listed, for this exercise I argue it is fair to assume that in actuality it does occur. Therefore, I will not go through each individual process to highlight an existing or identify a new corresponding metric. However, two noteworthy groups of processes exist for which I have not been able to identify any corresponding metrics. The first group of processes relates to customer communication and associate training and the second group of processes relates to transformation risk monitoring and mitigation. For both these groups it is critical that corresponding metrics either be identified or new ones developed.

In regard to the communication and training processes, corresponding metrics might include "Associates trained", "Customers notified", and "Customer satisfaction level", all of which are plausible and verifiable metrics. Other such metrics are also satisfactory as long as the metrics chosen sufficiently track the success of the communication and training processes.

The other newly identified processes relate to risk monitoring and mitigation. Once again, these processes arose from stakeholder values related to the un-interruption and continuity of business during the transformation itself. Specific plausible metrics include "Incident resolution time", "Transformation operational risk incident & severity", and "System uptime for customer access". Similar metrics are also satisfactory as long as they adequately track risk and enterprise system stability during the transformation itself.

One critical point to make is that the number of incidents that arise during a transformation is alone not a sufficient metric. A plausible scenario might be ten incidents over the course of a transformation. Of these ten incidents, nine might result in acceptable consumer online system access downtime of a few seconds while one incident results in system downtime of three days. Utilizing a single metric that measures the quantity of incidents would result in a nominal reading and a state of low severity due to the low number of incidents. Such a reading however is highly misleading. Consequently, it is critical that any measure of the number of incidents be accompanied by a measure of incident severity so as to provide a meaningful metric.

The three previously added metrics, "Incident resolution time", "Transformation operational risk incident & severity", and "System uptime for customer access" need to be mapped to the corresponding strategic objectives. It is important to note that these three metrics track the CANW transformation itself and not the end-state of the transformation. While this is perhaps not evident from the metrics themselves, by looking at the processes to which these metrics map, such as "Transformation risk monitoring" and "Transformation risk mitigation", it is clear that these three metrics are indicators of the CANW transformation.

Starting with the metric "System uptime for customer access" and progressing through the strategic objectives reveals that the metric strongly maps to "Maintain BAC's Reputation". This is critical to note as system downtime of a material length during or as a result of the CANW transformation could drastically affect BAC's reputation and its public perception. "System uptime for customer access" also maps to the strategic objectives "Minimize Conversion Adverse Customer and Associate Issues" and "Customer Satisfaction During the Transformation". Measuring uptime is a suitable metric for these two strategic objectives. The next metric, "Transformation operational risk incident & severity", weakly maps to the "Maintain BAC's Reputation" strategic objective. Should there be a number of adverse incidents during the transformation, BAC's reputation could be hurt but only if those incidents affect the public. A major internal problem could still occur that might not hurt BAC's reputation, which is why I argue that the metric weakly rather than strongly maps to the "Maintain BAC's Reputation" strategic objective. "Transformation operational risk incident & severity" further maps to "Minimize Conversion Adverse Customer and Associate Issues" and to "Customer Satisfaction During the Transformation". The second of these two strategic objectives offers a weak mapping for the same reason in that a major operational risk incident might not be visible to BAC customers and therefore will not affect customer satisfaction. Lastly, the metric "Incident resolution time" strongly maps to the strategic objectives "Maintain BAC's Reputation", "Minimize Conversion Adverse Customer and Associate Issues", and "Customer Satisfaction During the Transformation". In this regard, the time it takes to resolve an adverse incident that occurs during the transformation has the potential to affect all three of these strategic objectives depending on the nature of the transformation incident and the duration until the incident is resolved.

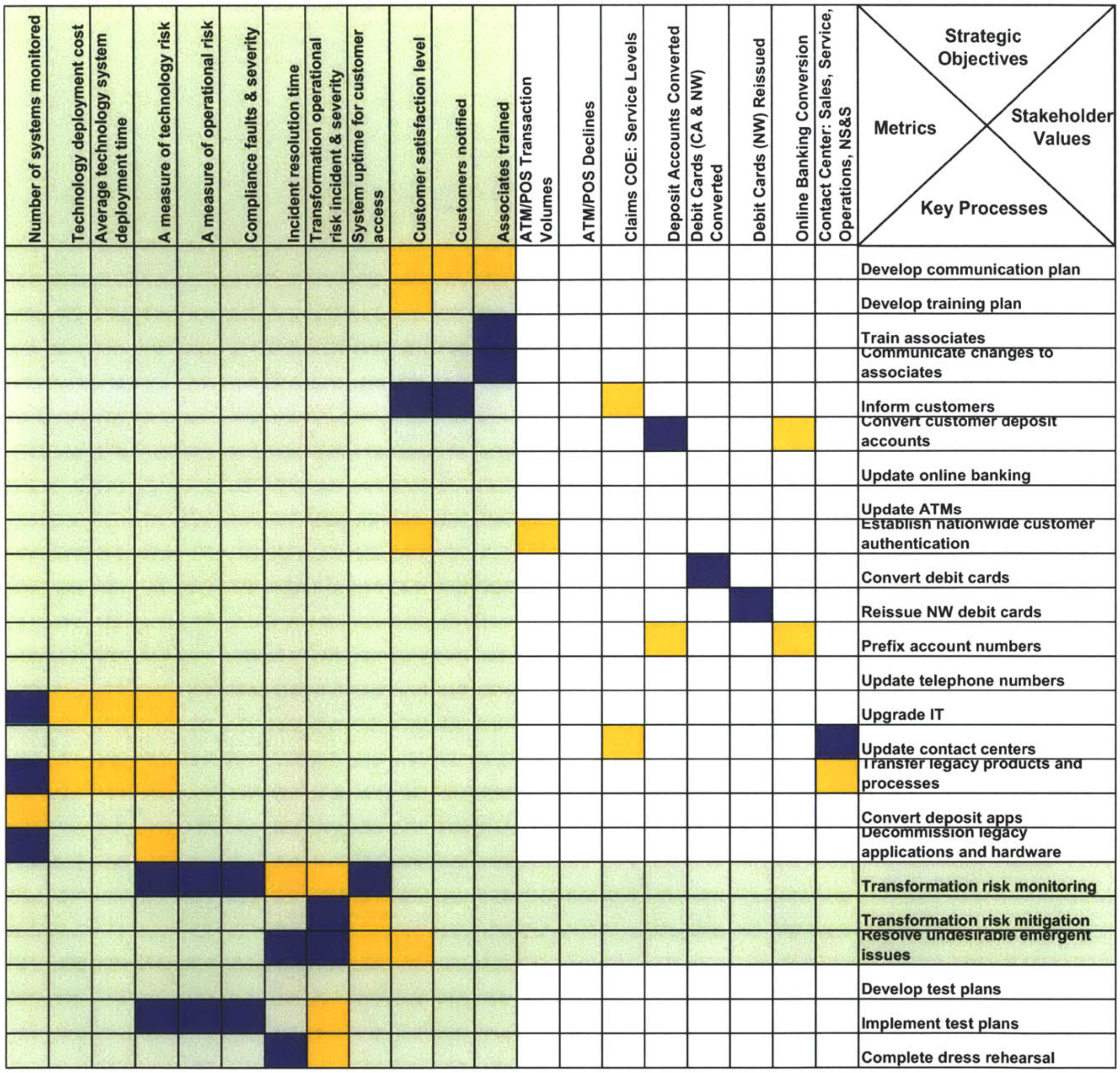


Figure 20 - Revised X-Matrix: Key Processes and Metrics

Figure 20 presents an updated X-Matrix quadrant that maps key processes to the CANW metrics based on the above analysis.

4.8.4. *Strategic Objectives vs. Metrics*

Metrics are also critical for measuring progress towards the strategic objectives of the CANW transformation. While strategic objectives such as "Nationwide Consistency" are sufficiently tracked by metrics, based on my research there are three areas which I argue are not. These are specifically "Decreased Operational Risk", "Decreased Risk of Compliance Failure", and technology-focused strategic objectives including "Decreased Technology Complexity", "Decreased Potential for Technology Problems", and "Decreased Technology Development and Deployment Time and Cost".

Starting with the strategic objective "Decreased Risk of Compliance Failure", one potential metric is "Compliance faults & severity". While this metric is acceptable it is not necessarily a strong metric. Although the metric measures both number of incidents and the severity of those incidents, it only tracks incidents that have already occurred. The strategic objective however I argue focuses on potential rather than on past occurrences. In this regard, measuring the number of past faults is alone not a sufficient measure of future potential. A lack of problematic occurrences does not mean that the potential for problems is at an acceptable low level.

The next strategic objective "Decreased Operational Risk" is noteworthy in that it deals with the challenging question of how does one and how should one measure operational risk. A lack of incidents does not equate to a low operational risk. However, the question of how to measure operational risk and what is an adequate metric is beyond the scope of this project. Therefore, I will simply include a metric labeled "A measure of operational risk" as a placeholder until an appropriate metric can be selected.

When looking at technology related strategic objectives, a similar question emerges in regards to "Decreased Potential for Technology Problems". The strategic objective focuses on "potential", which is a measure of future activity rather than past or present problems. Therefore, as before, the question is how to measure the future chance of an incident vs. measuring the present number of incidents. Remember that a low level of realized problems does not indicate that a lack of potential problems exists. Nevertheless, to maintain a high-level focus for this exercise, one possible metric as a placeholder is "A measure of technology risk" since determining how to measure "potential" is beyond the scope of this project.

The two remaining strategic objectives "Decreased Technology Complexity" and "Decreased Technology Development and Deployment Time and Cost" are much simpler to address. For the strategic objective, "Decreased Technology Development and Deployment Time and Cost", two effective metrics worth noting are "Average technology system deployment time" and "Technology deployment cost". "Decreased Technology Complexity" should be measured and tracked by a metric such as "Number of systems monitored" rather than by a "Number of systems" metric. A single system could consist of hundreds of sub-systems or processes and therefore using "Number of systems" as a metric can be misleading. Instead, tracking what is monitored I argue provides more of a direct measurement of technology complexity.

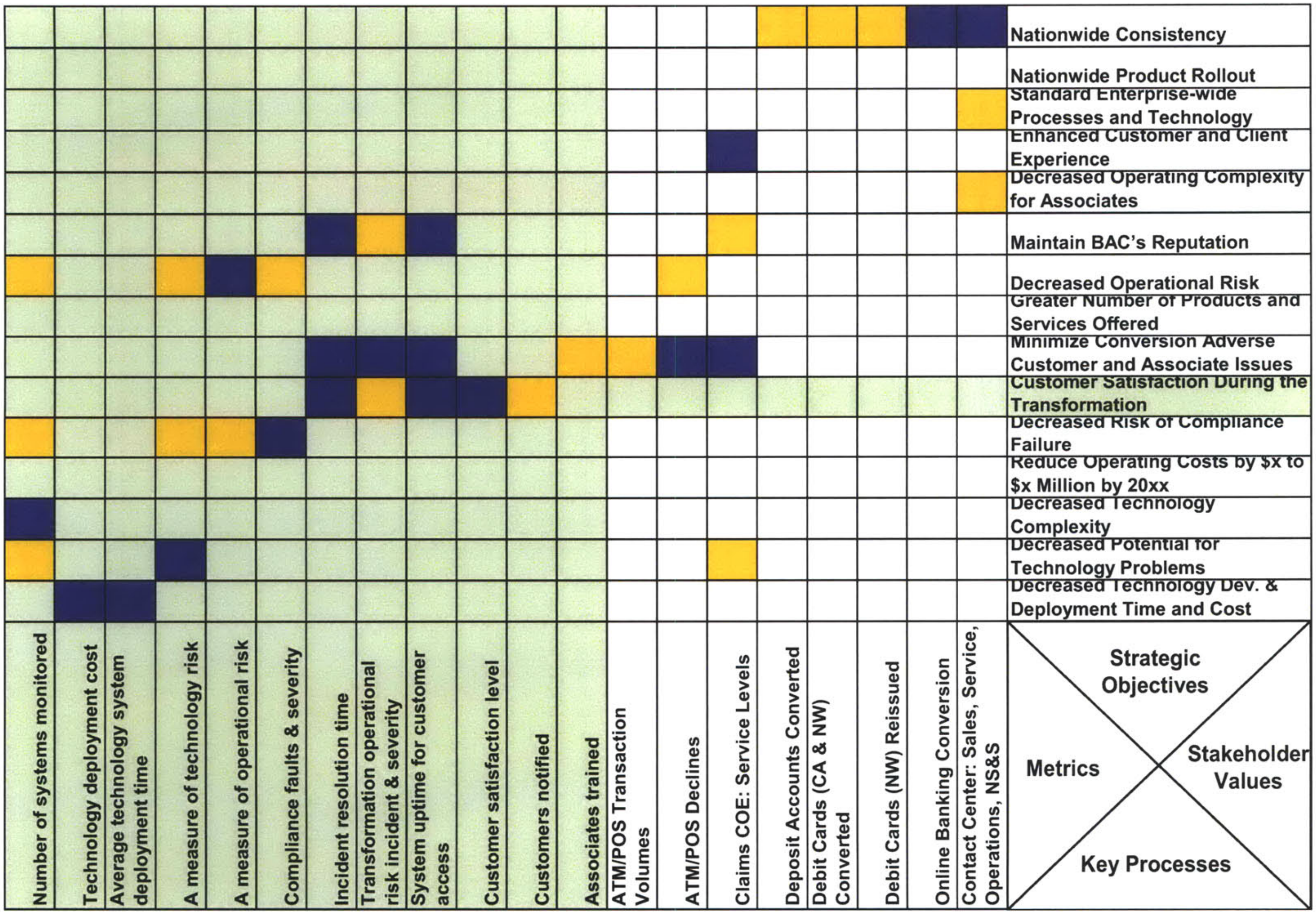


Figure 21 - Revised X-Matrix: Metrics and Strategic Objectives

Figure 21 presents an updated X-Matrix quadrant that maps CANW metrics to the strategic objectives based on the above analysis.

Having linked these newly added metrics to their respective strategic objectives leaves the need to map the new metrics to the key processes. "Compliance faults & severity", "A measure of operational risk", and "A measure of technology risk" were primarily added to measure the state of CANW and BAC following the transformation. Consequently, these metrics measure the process that is CANW as a whole, which is a compilation of all the key transformation processes listed. Nevertheless, depending on the duration of the CANW transformation, these metrics can also be used to monitor individual transformation processes. Specifically, I argue that they can be mapped to the processes "Transformation risk monitoring" and "Implement test plans". The metric "A measure of technology risk" is also useful for monitoring key processes related to IT and product and service initiatives heavily grounded in technology. These processes include "Upgrade IT", "Transfer Legacy Products and Processes", and "Decommission Legacy Applications and Hardware". Note that I am not arguing that each metric in the exact same form can be used both during and after the CANW transformation but rather that using a type of each metric in general is feasible.

The three remaining newly added metrics, "Average technology system deployment time", "Technology deployment cost", and "Number of systems monitored" must also be mapped to the appropriate key processes. As with the other three processes previously discussed, these three are designed to measure the end state of the CANW transformation. The metrics are however useful for assessing a limited number of transformation processes. Specifically, while "Average technology system deployment time" is structured to measure product and process deployment time following the transformation, it is still a useful metric to track the "Upgrade IT" and "Transfer Legacy Products and Processes" processes. In this regard, the metric will provide insight into IT and product & process deployment time during the transformation, which can be used as one indicator of expected deployment time following the transformation. In a similar fashion, "Technology deployment cost" while designed as an indicator for use following the transformation, can also be applied during the transformation so as to obtain potentially predictive measurements. Specifically, "Technology deployment cost" can be mapped to the "Upgrade IT" and "Transfer Legacy Products and Processes" processes. While "Number of systems monitored" is structured to measure the number of systems in operation following the CANW transformation, the end value is in-part determined by the transformation. Therefore, key processes that either decrease or increase the number of systems during the transformation arguably can be mapped to this metric. These processes include "Upgrade IT", "Transfer Legacy Products and Processes", "Convert Deposit Apps", and "Decommission Legacy Applications and Hardware".

5. Conclusion

The research I conducted over a period of seven months provided me with exposure to numerous aspects of the California Northwest transformation and overall change management practices at Bank of America. However, I did not have access to all materials on and executives involved with the transformation. A comprehensive evaluation would have been a multi-year endeavor, in part due to the fact that the CANW transformation is ongoing at the time of this project. With this in mind, the recommendations below present my observations and insight from my research. These recommendations should be viewed as elements that change management executives at Bank of America may want to consider adopting for the remainder of the California Northwest transformation and / or for future change initiatives.

5.1. Recommendations

5.1.1. Identification of all stakeholders and stakeholder values

During a transformation, such as that of California Northwest, the executive team in charge must work to identify and understand the needs of all stakeholders affected by the transformation. This means including but also looking beyond the usual suspects such as customers / clients, associates, and stockholders, to such stakeholders as the public, rating agencies, and strategic partners. All stakeholders and their needs must be explicitly recognized and discussed in the transformation documents and material. Stakeholder groups not sufficiently considered in the CANW transformation documents I reviewed include rating agencies, the public, local communities, and the change execution team itself.

For example, a key CANW transformation goal is "Minimize Conversion Adverse Customer and Associate Issues" as stated by the California Northwest transformation Steering Committee (Steering Committee, August 2010, p. 4). A critical stakeholder group that is both affected by this goal and works to ensure that it is met is the CANW transformation team itself. However, I have not seen enough of a discussion on this stakeholder group and its needs in the assessment material. Without recognizing and considering the needs of this stakeholder group, a transformation might be structured such that the executive team in charge can only execute the required tasks and processes by allowing the emergence of adverse consequences.

5.1.2. Adoption of a stakeholder centric view

Two approaches exist when viewing a transformation. One is to focus on meeting a single goal or stakeholder need. The other is the adoption of a stakeholder centric view, which seeks to address the needs of multiple stakeholders when undertaking a transformation. For transformation initiatives at Bank of America I argue that there is no "all hands on deck" mandate or company-wide buy-in that exists with transition. Consequently, to bring all the necessary parties on board from assessment through execution, all stakeholders must receive value from the transformation and be aware of the value received. Gaining stakeholder buy-in through such an approach is especially critical for initiatives such as California Northwest, which was started and stopped three times. As Karen McKinney, an executive leading a segment of the CANW transformation, said, "We have looked at the business case almost every year, and the business priorities for investment were more on acquisition than on fixing legacy issues… (McKinney, 2010)"

Nevertheless, even when adopting a stakeholder centric approach, the underlying justification for undertaking a transformation must not be overlooked. For example, BAC is able to justify spending X hundred million dollars on CANW by decreasing the operational risk for the benefit of its stockholders. Therefore, when seeking to provide value to each stakeholder group, this goal must not be traded or forgotten. The reason behind a transformation must be held constant if its elimination will negate the purpose for or budget supporting the initiative.

5.1.3. Public announcement by senior management

Upon commencement of a transformation initiative senior management should make a public announcement on the transformation, including the goals, objectives, and expected benefits. Such an announcement may be in the form of a press release to the media and investors or a dedicated conference call to announce the initiative. Should the announcement be made as part of a regularly scheduled earnings call or SEC filing, i.e. a 10-K or 10-Q, the time or space devoted to discussing the transformation initiative should be of such a substantial length that the details are not "hidden" in the announcement or filing. Ideally, the first announcement should be made at the start of assessment. If the benefit of the transformation is not yet known or if the necessary resources have not yet been allocated, then the announcement may be delayed. But initial uncertainty over whether the transformation will be completed must not be an excuse for a delay in announcing the initiative. Further, it is preferable that as the transformation progresses repeated announcements be made in subsequent earnings calls and SEC filings so as to provide status updates to investors and all affected stakeholders. The overall goal is to create a sense of external accountability to stockholders and an internal mandate amid BAC's associates for transformation initiatives as that which exists during transition.

Granted, on Friday January 21, 2011 during Bank of America's Q4 2010 earnings call, Bank of America's CEO Brian Moynihan did address the CANW transformation (Bank of America Corp., Q4 2010 Earnings Call, 2010). However, the announcement was buried in the Q&A portion of the call. Further, there were no material additional announcements made by other means such as press releases or disclosures in the corresponding PowerPoint presentation. The announcement also was made around half a year after the CANW assessment period started, which is a period long enough to have theoretically allowed and subsequently stopped a substantial volume of work resulting in lost time and money without any public accountability or consequence.

While I commend the public announcement on the CANW transformation, I still do not feel it is sufficient enough to result in a mandate as that which exists with transition initiatives. Such an "all hands on deck" mandate is needed to bring all stakeholders on board and to ensure that the CANW transformation is successfully completed in the allotted period of time. A separate conference call and press release or SEC filing I argue would have been much more significant and appropriate given the scale of CANW and the support needed to see the transformation through to completion. When IBM, for example, restructured its business to pursue operating efficiency it made a public announcement describing the initiative (IBM, 2005). Although perhaps not the same as a company-issued press release, a 2006 Businessweek article discussed JPMorgan's three billion dollar initiative to upgrade its network and consolidate the Company's data centers across the world (Der Hovanesian, 2006).

An interesting question then arises as to when the scale of a transformation warrants such a public announcement. At one end of the spectrum, an initiative whose size is comparable to that of CANW, which affects 29% of all BAC retail consumer deposit accounts, warrants such an announcement (Executive Framework Review, 2010, p. 4). However, at the other end of the spectrum, an online banking platform or data center upgrade to provide greater functionality and decrease IT system risk might not warrant such a public announcement. For this project, I will not seek to draw a line in the sand as to which projects warrant and do not warrant a public announcement. Rather, I will simply argue that any project initiated by senior management or C-level executives is most likely of such importance that an announcement to investors and the public is needed to create an "all hands on deck" mandate for all affected stakeholders within Bank of America to drive the project through to completion.

5.1.4. Awareness of objectives and back-checking by all parties

Transformation initiatives are broken down into segments, which are pre-assessment, which includes defining the case for the transformation, assessment, and execution (Skvoretz, September 21, 2010) (Skvoretz, December 16, 2010). While some executives are involved with all segments of a given transformation, many work only on a single portion of a transformation. In speaking with executives and associates involved with the CANW transformation, it became evident that an individual is mostly focused on and has knowledge of his or her portion of the transformation within a given phase of the transformation (Davis, November 2010). For example, my research leads me to believe that an executive who joined the CANW initiative during the execution phase will have little knowledge of analyses conducted and decisions made during assessment. While an associate might have a full grasp of what needs to be done, he / she might not be aware of why a certain task must be completed. Consequently, it is important that the transformation objectives and stakeholder needs determined early on be conveyed to all parties and that everyone involved in the transformation have an intimate understanding of those objectives and values and how they were determined.

The existing transformation process structure is such that the information needed in the execution phase, which was acquired in assessment, is properly conveyed to the appropriate parties. However, I argue that the potential exists for missed opportunities, the prevention of full value creation, and faults if a transformation associate is not fully aware of all the objectives and stakeholder needs and how they were ascertained. Decisions made based on a limited knowledge set can result in misalignment between one's intentions / objectives and one's actions.

Further, as mentioned to me by Jonathan Skvoretz, oftentimes there is a change in management between the assessment and execution phases of a transition or transformation initiative (Skvoretz, February 10, 2011). Personnel turnover can happen both at the change management team level and at the most senior executive levels within the Bank. Such employee turnover and management disruption has the potential to adversely affect an ongoing change initiative.

Management should have a clear understanding of the values and needs of each stakeholder, the current performance of each, and a ranking of importance based on an analytical assessment or research study and not solely on anecdotal observations. To avoid any hindsight bias, the studies or research undertaken must be completed prior to rather than after assessment. While I was told during conversations with change management executives at Bank of America that this is extensively done, few individuals were able to sufficiently recall the exact research or analysis undertaken (Davis, November 2010). All analysis completed and results obtained must be clearly understood by all parties from assessment through execution.

Ensuring that executives in later stages of a transformation are aware of the method by which stakeholder values were determined and strategic objectives developed will minimize the chance that unexpected problems will emerge. Such a structure allows executives in the execution phase to constantly back check their decisions against the strategic objectives and stakeholder needs determined during assessment.

All actions taken should point back to the original analysis or research performed. This is critical for transformations that aim to maximize value for all stakeholders. When a particular action is taken during a transformation, the decision made must be traced back to a specific stakeholder value, the priority of that value, and the analytical method by which the stakeholder value was identified. If an executive or associate is unable to map a process taken back to a specific stakeholder need / value with a solid understanding of how that value was identified, then the task should not be completed. As stated in the book *Beyond the Lean Revolution*, co-authored by Professor Deborah Nightingale, who is a co-director of the Lean Advancement Initiative (LAI) at the Massachusetts Institute of Technology, "The transformation planning process is linked directly to the data and analyses that form the basis for defining and executing transformation projects, and the plan must be traceable to those data (Nightingale and Srinivasan, 2010, p. 114)." The ability to point back to a specific research project or analysis conducted that resulted in the identification of stakeholder values ensures accountability. So long as an executive can reference a stakeholder needs analysis or strategic objective study, then a decision made should have a low probability of turning out wrong. Back checking and understanding the initial justification for a transformation can also minimize any adverse effects that may result from management and / or senior management turnover during the course of a transformation initiative.

Another element worth mentioning is that of how the transformation's future state relates to and meets the identified stakeholder needs. Bank of America does a good job defining the future state of the transformation at the start of the change initiative. Benefits key stakeholders are expected to receive are identified and articulated in internal documents and the future state from a functional perspective is clearly understood. For example, early on the Steering Committee presents what is referred to as the "target definition", which includes tasks from providing Asian language support to discontinuing Pay by Phone features (Steering Committee, September 2010, p. 5-6). However, how the future functional state ties into and affects each stakeholder value must be identified and stated. When progressing through the transformation, each action taken must not only be assessed as to whether it meets the envisioned future state but also how it affects the identified stakeholder values.

5.1.5. Adoption of a standardization vs. transformation mindset

When viewing a transformation, executives leading the initiative should ask whether the goal is that of standardization or transformation (Dorey, 2010). Using California Northwest as an example, as discussed before, while labeled a "transformation", the initiative is in actuality a standardization as the goal is to equate California, Idaho, and Washington's banking platform to that of the Bank's Model banking platform. The focus of CANW is not on process improvement or ways to increase efficiency but rather to make one platform equal to another platform. If an element of the Bank's Model platform could be improved, the goal is still to convert the corresponding element from CANW to that of Model without focusing on improving the end state of the combined platform element.

Transformations can also be non-standardization improvements. In this regard, an aspect of BAC's banking platform is selected and analyzed. Areas where efficiency can be improved are identified and plans are developed to carry out the work. For such initiatives, the goal is not to equate two platforms, but rather to improve systems, processes, and procedures in select areas. These tasks should still be labeled "transformation" since the focus remains inward vs. outward as exists with transition or when acquiring and integrating businesses.

Realizing and being aware of these differences is important for executives undertaking a transformation. One should always ask whether a transformation is really a transformation initiative or is in actuality a standardization initiative. If the transformation is a standardization initiative then the executives in charge must focus on making one system or set of processes equal to a second system or set of processes. Improving the second system or set of processes typically should not be part of the initiative. One may ask "why not improve the end state of the enterprise while already making a substantial set of changes?" This is a fair point. On a small scale, making improvements as part of a standardization initiative is valid and may be considered and carried out. However, when looking at standardization initiatives on the order of the size of California Northwest, which affects 29% of all retail consumer deposit accounts, simultaneous improvement projects could increase the scale of the transformation initiative to the point where it is unmanageable, over budget, and / or presents even greater operational risk to the Bank.

One exception I argue is the case when new features and functionality are added to the end state system. In this regard, should there be no undue burden, features and functionality that do not exist in the end state system but will be added can be improved or enhanced prior to the start of the standardization-type transformation. In such cases, the transformation team can enhance the system element found to be inefficient before it is added to the end state system. Regardless, the ultimate decision of what to improve vs. what not to improve during a standardization-type transformation should be left to senior management to decide so long as the added risks, cost, and burden on the change management team is clearly understood.

The other notable difference that exists between a standardization initiative and a transformation initiative is the order of actions taken. For a standardization initiative, the future or end-state of the transformation is known. When converting "A" to "B" prior to the start of the project, the end-state "B" exists and is already known. In-contrast, for a non-standardization transformation initiative where system, process, and procedure efficiency is sought, the end state is not known and should not be presumed to be known. Rather executives in charge must first assess the current enterprise state, examine value streams, understand how stakeholder needs and strategic goals relate to enterprise processes, and identify sources of waste. Such is suggested by the Enterprise Strategic Analysis and Transformation (ESAT) Guide (Nightingale, Stanke, and Bryan, 2008, p. 7, 47-48). Only after this is done can areas for improvement be identified and a future state specified. For non-standardization initiatives, transformation teams must not start out with any preconceived notions of enterprise waste and areas for improvement. Rather, the analysis must come first, only after which can action plans be developed.

When determining whether to equate or improve systems, selecting the order of tasks, and allocating time to identify areas for improvement it is critical that senior management ask whether the transformation is really a transformation initiative or in actuality a standardization. Further, upon making such a determination, all subsequent assessment and execution documentation should be appropriate labeled, using either the term "transformation" or "standardization", so that all parties are aware of the actual nature of the initiative.

5.1.6. Clarity of enterprise goals

The previously presented analysis shows that for the most part, the set of California Northwest strategic objectives or goals is complete. I only had to add one strategic objective to ensure that the objectives sufficiently map to the transformation processes to the metrics and stakeholder values identified.

While such is the case, the wording of the goals can certainly be improved to ensure clarity and to remove any ambiguity that exists. One such approach is to follow the recommendations of the INCOSE Systems Engineering Handbook, which provides a framework that I argue is very applicable to writing quality goals for transformation initiatives (International Council on Systems Engineering, 2010, p. 76-79). Adopting this framework ensures the goals are "necessary", "clear & concise", "measurable", "achievable", and "verifiable" (International Council on Systems Engineering, 2010, p.

76-77). Nevertheless, the goals as stated in the assessment material, for the most-part, are embedded in other descriptive text. The Executive Framework Review released in July 2010 offers the sentence "Converting California and the Northwest to the target environment reduces risk, improves the customer experience, enables revenue growth, and reduces time to market and development costs for future capabilities" (Executive Framework Review, 2010, p. 5). This single sentence contains at least four individual goals. Only in very high level summary material are goals listed individually. A "key messages" slide produced by the Steering Committee in August 2010 offers a bullet point list of individual CANW transformation goals (Steering Committee, August 2010, p. 4).

Nevertheless, intertwined in the list are tasks that cannot be considered goals. Therefore, I concede that in many cases where goals are presented or discussed, the nature of the documents do not allow for accurate wording according to INCOSE Handbook specifications. In fact as part of my research, I extracted goals embedded in detailed assessment material text that included much broader discussions beyond the goals themselves. Although such embedded goals are often provided and the clarity and conciseness of the goals is subjective in nature, it is nonetheless important that the executives in charge of articulating the goals of a transformation ensure that they are necessary, can be measured and verified, and at the end of the day can actually be achieved.

Beyond properly formatting the goals, an indication of their importance and significance should be included in the wording of the goals or stated in the text in which the goals are presented. In a transformation, fully meeting all the goals or stated objectives is nearly impossible. Rather, executives in charge of a transformation must work to balance competing goals and therefore the tradability and flexibility of the goals must be indicated. Understanding which goals are untradeable hard fast requirements vs. those that are merely desired strategic objectives is critical (Class Discussion, 2010). As Professor Crawley, the Ford Professor of Astronautical and Aeronautical Engineering at the Massachusetts Institute of Technology, argues, there will be situations where goals must be traded and an indication of how to do so is critical (Crawley, December 2009). Specifically, he states that "Goals should indicate <u>importance</u> and <u>rigidity</u>" (Crawley, October 2009, p. 123) and that they "exist within, and under the control of the enterprise, and are traded against other attributes" (Crawley, September 2009, p. 65).

In the context of the California Northwest transformation, for example, the goals "Standard Enterprise-Wide Processes and Technology" and "Enhanced Customer and Client Experience" present a potential implementation conflict. A standardized banking environment could lead to a reduction in customized offerings, which has the potential to decrease the customer / client experience. Seeking to provide a high quality customer experience might result in the need to implement non-standard technology platforms and processes, which conflicts with the "Standard Enterprise-Wide Processes and Technology" goal. As this example shows, when implementing changes during a transformation should a conflict arise, the presented goals must have associated attributes that provide some indication as to how to balance the requirements of one goal against those of another.

INCOSE suggests a language that can be used to articulate the importance of individual goals. Specifically, the words "shall", "will", and "must" indicate the degree of flexibility that exists to meet the specified goals. I argue that this structure is applicable to a Bank of America transformation initiative. As INCOSE describes, "shall" indicates a hard fast requirement, "will" indicates the end state of how the system / enterprise operates, and "must" is used to indicate desires rather than requirements (International Council on Systems Engineering, 2010, p. 78). If this particular structure is used, then the significance of the wording must be understood by all members of a transformation team. However, in general, the team that develops the transformation goals can use any wording or format so long as it provides some indication as to the rigidity and necessity of each individual goal. All individuals working on a transformation initiative need to know which goals must be met at any cost, which ones are critical but not absolute requirements, and those which are desirable but can be skipped if needed.

5.1.7. Stakeholder values and processes to consider

Through the previous analysis, in particular that of the X-Matrix, I identified stakeholder values and processes that should be considered by the CANW transformation team. Although I previously discussed these considerations, I feel that a few warrant presentation in the recommendations section.

The list of stakeholder values identified during the assessment phase should be updated to include values related to customer communication and associate training. While perhaps this action results in stating the obvious, it is nonetheless critical that these stakeholder values be identified, recognized, and stated. Such is necessary to understand the interdependencies that emerge and how these newly identified values affect existing and demand new transformation processes, metrics, and goals.

"Facilitate Revenue Growth", as presented in Table 2 - California Northwest Transformation Goals, should not be a strategic objective that is considered part of the CANW transformation. I argue that after having reviewed the list of processes I identified from the assessment material, I have not seen a process that is of such significance that it will alone lead to an increase in revenue. Granted, the stakeholder value "Additional Features and Services" might lead to an increase in revenue. However, this element of the transformation exists as a value rather than as a process. While processes including "Decommission Legacy Applications and Hardware" and "Convert Customer Deposit Accounts" have the ability to reduce costs, such actions might lead to an increase in income but not necessarily revenue.

Consequently, while "Facilitate Revenue Growth" is not advertised as a critical reason behind the transformation, I nevertheless argue that an increase in revenue should not be viewed as a strategic objective. At the same time, any increase in revenue is nonetheless beneficial.

5.1.8. Metrics to consider

As with the stakeholder values and processes in the previous section, I identified a few California Northwest metrics that are worth noting in the Recommendations section.

A key set of processes relates to training associates, developing a communication plan, and communicating transformation changes to customers and associates. However, I have been unable to locate metrics that relate to monitoring customer communication and associate training. These critical CANW transformation processes need to be monitored to ensure the communication and training plans are properly developed and executed. Without suitable metrics in place, even with rehearsals involving associates and customers, there is no way to accurately know whether associates are properly trained and have the knowledge to adequately serve customers in the target banking environment. Further, there is also no way to ascertain whether customers are sufficiently informed about the changes they will face and are satisfied with the service received following the CANW transformation. Consequently, devising and implementing metrics that measure customer communication and associate training is critical to ensure a successful CANW transformation.

The sought after end state of the CANW transformation is that of a banking platform with a lower operational risk. This is a critical, if not "the" primary reason for undertaking the California Northwest transformation and is captured by the "Decreased Operational Risk" strategic objective. However, as far as I am able to determine from my research, there are no clear metrics stated in the assessment material for evaluating the decrease in operational risk as a result of the CANW transformation. While I do not dispute that measuring operational risk is challenging and that no easy or simple method exists, as reduced risk is a critical strategic objective, at a minimum one applicable metric must be developed and implemented. However, as I discussed in section 4.8.4, the question of how to measure operational risk is beyond the scope of this project. Therefore, I will simply state that "A measure of operational risk" is needed.

Numerous CANW strategic objectives exist that focus on technology from decreasing technology complexity and the potential for the emergence of technology-related problems to decreasing technology deployment time and cost. However, through my research I have not seen metrics in the assessment material that are suitable for tracking the transformation work completed towards meeting these technology-focused objectives. For each specific technology goal and related process, at least one metric must be identified or developed and implemented. While one may informally be able to ascertain when the objective is met, these technology-focused initiatives must still be formally tracked using suitable metrics.

5.2. Concluding Thoughts

Overall Bank of America maintains and practices a robust transition process for integrating acquired businesses. Applying that process to internal enterprise and process improvement or transformation-type initiatives alone is insufficient. Bank of America needs to consider the enterprise state during which a given change management initiative occurs and I argue that two entirely different enterprise states exist during transition and transformation.

During transition, an "all hands on deck" mandate exists with a priority focus across the enterprise. In contrast, with transformation, no such mandate exists. Therefore, I recommend that Bank of America develop a "transition environment" when pursuing critical transformation initiatives. Specific actions may include identifying and considering the needs of all stakeholders so as to gain "buy-in" and support from all parties affected by and / or involved in the transformation. A culture of open communication is needed to further support the development of an "all hands on deck" mandate. Finally, executives and associates directly involved with and carrying out a transformation should back check any and all assumptions made so as to be able to justify their actions, stay on message, and facilitate full value creation.

When looking at the California Northwest (CANW) transformation, Bank of America executives must realize that this initiative is not a transformation but rather a standardization initiative (Dorey, 2010). The goal of the California Northwest initiative is to make the retail banking platforms in the states of California, Idaho, and Washington equal to that of the Model banking platform used across the rest of Bank of America (Gerringer, 2010, p. 2). The goal is not to directly improve California Northwest or the Model banking platform. In this regard, the goal is to make platform "A" equal to platform "B", which is a standardization (Dorey, 2010). Taking this one level further, California Northwest is in all sense a "delayed transition". CANW is an initiative that remains unfinished as part of the original 1998 merger between Nations Bank and Bank of America (McKinney, 2010). Twelve years later, the transition is finally targeted for completion.

In this regard, following the transition process for the California Northwest initiative is appropriate as the initiative is a delayed transition. Therefore, no need exists to conduct a stakeholder analysis, to thoroughly understand the needs of all stakeholders, and to execute the change initiative so as to maximize value for the benefit of those stakeholders. The goal is simply to make platform "A" equal to platform "B" or make CANW equal to Model. The transition process therefore should work for California Northwest.

In a true transformation, the goal is not to make "A" equal to "B", but rather to improve and enhance the value proposition of "B". In this regard, the desired future state of the enterprise is not already known at the start of the initiative. A thorough stakeholder analysis should be conducted, all stakeholders and their needs must be identified, and the transformation initiative needs to be carried out so as to benefit and provide maximum value to the identified stakeholders. Whether Bank of America's transition process is applicable to and will be successful for a true transformation initiative, where the real goal is process improvement and enterprise transformation, remains to be seen.

5.3. Future Work

While my research resulted in key insights into the California Northwest transformation and overall change management practices at Bank of America, with each lesson learned and recommendation developed a new question and topic for exploration emerged, each worthy of a thesis on its own. One key area deals with operational risk and what constitutes an appropriate "measure of operational risk." Many industries, from petroleum to aerospace, struggle to answer this question. Exploring measures of operational risk and defining what constitutes an acceptable measure and level of operational risk in the financial and banking industries are important topics for future study. Expanding such a study of risk in the financial industry one level further brings the question of "system safety" into scope. As Bank of America can be viewed as a system, exploration of system risk and the field of system safety are directly applicable as an extension of an operational risk study. Nancy Leveson, Professor of Aeronautics & Astronautics at the Massachusetts Institute of Technology offers a framework for evaluating system safety called STAMP, which as she states "includes software, organizations, management, human decision-making, and migration of systems over time to states of heightened risk (Leveson, 2011)." Applying this model to the world of finance and Bank of America offers an area of research that not only builds upon my work with BAC but also has the potential for valuable insight into operational risk and system safety in the financial industry.

The financial crisis at the height of 2008 emphasized the significance of the statement "too big to fail". In the context of Bank of America and its numerous acquisitions over the past decade, Jonathan Skvoretz, a SVP and Change Management Executive, who is this project's executive sponsor, offered the question of whether Bank of America is "too big to manage" (Skvoretz, December 16, 2010). Can Bank of America with its size and complexity actually be "too big to manage?" Are project management and enterprise transformation tools and methods including ESAT truly scalable and applicable to an organization the size of Bank of America? At what point is an enterprise so large that these tools are no longer useful? Professor Crawley, the Ford Professor of Engineering and Professor of Engineering Systems at MIT, argues that the human mind is able to comprehend and process a system decomposed into at most 25 elements or abstracted groups of elements (Crawley, January 13, 2009). Can Bank of America as a system be decomposed into 25 manageable elements, the responsibility of which adequately assigned? If so, are these enterprise change management tools then applicable?

Characterizing and measuring operational risk, exploring financial system safety, analyzing when a financial institution is "too big to manage", determining the scalability of change management and enterprise transformation tools such as ESAT are all areas that are worthy of further analysis and lend themselves to individual thesis topics.

Appendix A – References

American Express Company. "Personal Savings from American Express." American Express Company website. http://personalsavings.americanexpress.com/?inav=footer_personal_savings, accessed October 2010.

The Associated Press. "Bank of America Restores Online Banking System." Associated Press, January 14, 2011. http://www.google.com/hostednews/ap/article/ALeqM5iCsHPJWo2xk0jX1WsXaKflO8dDwA?docId=873bb4897e3b4678b4e213f07a646a3d, via Google News, accessed February 2011.

BAC Discussion. "Transformation at Bank of America: An Enterprise Systems Analysis." Presentation discussion, February 28, 2011. Charlotte, North Carolina.

Bank of America Corporation. 2009 Annual Report. http://media.corporate-ir.net/media_files/irol/71/71595/reports/2009_AR.pdf, accessed October 2010.

Bank of America Corporation. "Company Overview." Bank of America Corporation website. http://mediaroom.bankofamerica.com/phoenix.zhtml?c=234503&p=irol-homeprofile, accessed October 2010.

Bank of America Corporation. "Debit Cards." Bank of America Corporation website. http://www.bankofamerica.com/deposits/checksave/index.cfm?template=checkcards_overview, accessed October 2010.

Bank of America Corporation. December 31, 2009 Form 10-K. Filed February 26, 2010. http://sec.gov/Archives/edgar/data/70858/000119312510041666/d10k.htm, accessed October 2010.

Bank of America Corporation. "How Change Has Evolved." Internal Bank of America PowerPoint presentation, p. 3.

Bank of America Corporation. Mid Year 2010 Investor Fact Book. http://investor.bankofamerica.com/phoenix.zhtml?c=71595&p=irol-irhome, accessed October 2010.

Bank of America Corporation. "Q4 2010 Earnings Call Transcript." Call given January 21, 2011, from Bank of America Corporation. http://www.morningstar.com/earnings/printtranscript.aspx?id=21330274, accessed January 2011.

Bank for International Settlements (BIS). "History of the Basel Committee and its Membership." BIS website. http://www.bis.org/bcbs/history.htm, accessed February 2011.

The Boston Consulting Group. "Despite Rebound, Asset Managers Face an Uphill Battle to Succeed in Postcrisis Era, Says Report by The Boston Consulting Group." The Boston Consulting Group press release, July 20, 2010. BCG website, http://www.bcg.com/media/PressReleaseDetails.aspx?id=tcm:12-55264, accessed December 2010.

Class Discussion. "ESD.61 - Integrating the Lean Enterprise." Class presentation Q&A, December 6, 2010. Massachusetts Institute of Technology, Cambridge, MA.

CNN Money. "Fortune 500: Our Annual Rankings of America's Largest Corporations – 2010." CNN website. http://money.cnn.com/magazines/fortune/fortune500/2010/, accessed October 2010.

Crawley, Edward F. "ESD.34 - System Architecture." Class lecture, January 13, 2009. Massachusetts Institute of Technology, Cambridge, MA.

Crawley, Edward F. "ESD.34 - System Architecture." Class lecture, December 11, 2009. Massachusetts Institute of Technology, Cambridge, MA.

Crawley, Edward F. "System Architecture: IAP Lecture 2." PowerPoint presentation to ESD.34 - System Architecture class, January 9, 2009. Massachusetts Institute of Technology, Cambridge, MA.

Crawley, Edward F. "System Architecture: Identifying Value - "Reducing Ambiguity in the System." PowerPoint presentation to ESD.34 - System Architecture class, October 30, 2009. Massachusetts Institute of Technology, Cambridge, MA.

Crawley, Edward F. "System Architecture: Lecture 1." PowerPoint presentation to ESD.34 - System Architecture class, September 11, 2009. Massachusetts Institute of Technology, Cambridge, MA.

Cross, Leigh. "CSBB – Channels: Target Definition – Executive Summary." Internal Bank of America PowerPoint presentation.

Davis, Mark and Rohrwasser, Mark. "Operations: Target Definition – Executive Summary." Internal Bank of America PowerPoint presentation.

Davis, Tracie. Conference call, November 29, 2010. Frisco, Texas.

Davis, Tracie. "Response to Questions on Feedback Provided on California Northwest Transformation Processes." E-mail message to Daniel Wallance, February 14, 2011.

Davis, Tracie. "Response to Request for Comments on CANW Goals, Processes, and Metrics." E-mail message to Daniel Wallance, December 7, 2010.

Der Hovanesian, Mara. "JPMorgan: The Bank Of Technology." Businessweek, June 19, 2006. http://www.businessweek.com/magazine/content/06_25/b3989067.htm, accessed April 2011.

Dorey, Sean - Major. "ESD.61 - Integrating the Lean Enterprise." Class presentation Q&A, December 6, 2010. Massachusetts Institute of Technology, Cambridge, MA.

Executive Framework Review. "California / Northwest Transformation." Internal Bank of America PowerPoint presentation, July 21, 2010.

FDIC. "Statistics At A Glance" (PDF file). September 30, 2010. FDIC website, http://www.fdic.gov/bank/statistical/stats/2010sep/industry.pdf, accessed December 2010.

Federal Deposit Insurance Corporation (FDIC). "Who is the FDIC?." FDIC website. http://fdic.gov/about/learn/symbol/index.html, accessed November 2010.

Gerringer, Mike. "California / Northwest Transformation." Internal Bank of America PowerPoint presentation, September 2010.

Hanson, David and Sorkine, Rob. "Deposit & Card Products: Target Definition - Executive Summary." Internal Bank of America PowerPoint presentation.

IBM (International Business Machines Corp.). "IBM Plans Restructuring Actions to Accelerate Global Integration of Operations, Company Will Take Second-Quarter Charge." IBM press release, May 4, 2005. IBM website, http://www-03.ibm.com/press/us/en/pressrelease/7654.wss, accessed April 2011.

International Council on Systems Engineering (INCOSE). "Overview." INCOSE website. http://www.incose.org/about/index.aspx, accessed February 2011.

International Council on Systems Engineering (INCOSE). *Systems Engineering Handbook: A Guide for System Life Cycle Processes and Activities* (PDF file). San Diego, CA: SE Handbook Working Group, 2010.

Isidore, Chris. "Recession Officially Ended in June 2009." CNNMoney.com, September 20, 2010. http://money.cnn.com/2010/09/20/news/economy/recession_over/index.htm, accessed October 2010.

Katz, Ralph. "15.381 - The Human Side of Managing and Leading Technological Technology." Class lecture, January 12, 2010. Massachusetts Institute of Technology, Cambridge, MA.

Katz, Ralph. *The Human Side of Managing Technological Innovation.* New York, NY: Oxford University Press, Inc., 2004.

King, Mark. "BAC MIT Research on Enterprise Change." Presentation discussion, February 28, 2011. Bank of America Corporation, Charlotte, NC.

Leveson, Nancy. http://sunnyday.mit.edu, accessed March 2011.

McKinney, Karen. Conference call, November 5, 2010. Charlotte, North Carolina.

McKinney, Karen. "Response to Question about California Northwest Transformation Core Drivers." E-mail message to Daniel Wallance, December 8, 2010.

McKinney, Karen. "Response to Questions on Feedback Provided on California Northwest Transformation Processes." E-mail message to Daniel Wallance, February 15, 2011.

Merriam-Webster, Inc. "Goal - Definition." Merriam-Webster, Inc. website. http://www.merriam-webster.com/dictionary/goal, accessed February 2011.

MIT Lean Advancement Initiative (LAI). "Enterprise Strategic Analysis for Transformation (ESAT)." LAI website. http://lean.mit.edu/products/enterprise-strategic-analysis-for-tranformation-esat, accessed March 2011.

Nightingale, Deborah and Srinivasan, Jayakanth. *Beyond the Lean Revolution: Achieving Successful & Sustainable Enterprise Transformation.* 2010.

Nightingale, Deborah, Stanke, Alexis, and Bryan, F. Terry. "Enterprise Strategic Analysis and Transformation (ESAT)" (PDF file). MIT Lean Advancement Initiative (LAI), Release 2.0, September 2008.

Office of Thrift Supervision (OTS). "OTS Profile." OTS website. http://www.ots.treas.gov/?p=OTSProfile, accessed February 2011.

Rhodes, Donna H., and Ross, Adam M. "Concept Design and Tradespace Exploration." PowerPoint presentation to ESD.33 - Systems Engineering class, July 1, 2010. Massachusetts Institute of Technology, Cambridge, MA.

Rosenbaum, David. *Keeping It Real Through Systems Thinking.* Website article on Blade Kotelly, September 10, 2010. http://sdm.mit.edu/news/news_articles/sdm_kotelly/sdm_kotelly.html, accessed February 2011.

Saksenberg, Cory. "CA/NW/MB - Execution Phase Define Tollgate Summary." Internal Bank of America PowerPoint presentation, November 8, 2010.

Skvoretz, Jonathan. Conference call, September 8, 2010. Charlotte, North Carolina.

Skvoretz, Jonathan. In-person meeting, September 21, 2010. New York, New York.

Skvoretz, Jonathan. In-person meeting, November 17, 2010. New York, New York.

Skvoretz, Jonathan. In-person meeting, December 16, 2010. New York, New York.

Skvoretz, Jonathan. In-person meeting, February 8, 2011. New York, New York.

Skvoretz, Jonathan. In-person meeting, February 10, 2011. New York, New York.

Steering Committee. "California Northwest Transformation." Internal Bank of America PowerPoint presentation, August 2, 2010.

Steering Committee. "California Northwest Transformation." Internal Bank of America PowerPoint presentation, September 14, 2010.

Steering Committee. "CANW Transformation Steering Committee Excerpts." Internal Bank of America PowerPoint presentation, October 21, 2010.

Stetsky, Shayne. In-person meeting, November 18, 2010. New York, New York.

U.S. Bureau of Labor Statistics. "Household Data Annual Averages" (PDF file). Bureau of Labor Statistics website, http://www.bls.gov/cps/cpsaat1.pdf, accessed October 2010.

Yahoo! Finance. "Bank of America Corporation (BAC) - Major Holders." Yahoo.com, 2011. http://finance.yahoo.com/q/mh?s=BAC+Major+Holders, accessed February 2011.

Appendix B – ESAT Team Charter

Description/Mission:
To evaluate the application of BAC's transition process to transformation. Executive management wishes to understand whether this is the appropriate approach. Do gaps exist or are there elements that are missing and should be considered? How can the process be improved?

Case For Action:
Merrill Lynch represents the conclusion of the Bank's acquisition and integration of businesses, referred to as "transition". Management's priorities have shifted to focus internally on improving existing processes and completing the migration of legacy systems, known as "transformation".

An immediate need exists to evaluate the transformation process to determine whether it is adequate or should be improved.

Enterprise Description:
BAC's California Northwest transformation is the focus of this evaluation and constitutes the "enterprise". The specific segment within this region will be the consumer retail deposits.

States: California, Washington, Idaho
Banking Center locations: 1,230
Associates: 16,620 in CANW
Deposits: $141 billion in CA and $22.6 billion in NW
Customers: 10.9MM in CA and 2.04 in NW
Deposit Accounts: 3.6 million in NW and 15.6 million in CA

Kick-Off: September 2010
Target Completion: May 2011

Team Members:
Daniel Wallance (student): System Design & Management Fellow, Massachusetts Institute of Technology

Professor Deborah Nightingale (faculty advisor): Professor of the Practice of Aeronautics and Astronautics and Engineering Systems, Massachusetts Institute of Technology

Executive Sponsor:
Jonathan Skvoretz, Senior Vice President, Change Management Executive, Bank of America

Expected Outcomes:
The outcome of this project will be an evaluation of Bank of America's (BAC) transformation processes and procedures. The resulting report will provide suggestions for the improvement of BAC's change management practice.

Concurrently, through the use of MIT Lean Advancement Initiative's ESAT methodology, I will identify potential gaps in BAC's California Northwest transformation and will provide recommendations to enhance the initiative.

Source: Gerringer, 2010, p. 2; Executive Framework Review, 2010, p. 4
Template provided by MIT Lean Advancement Initiative