Chapter 14

Measuring ROI in Organization Culture Change

Agua Manufacturing Company

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This organizational culture change case study explores the details of the transition of a large manufacturing company (AMC) from a traditional organization to one that is marked by strong and empowering leadership, and an execution-friendly environment with clear strategy, goals, and priorities.

BACKGROUND

AMC is a large manufacturing company that serves an international customer base. Even in a slow economy, AMC has continued to increase revenues in the past several years, increasing its employee base by 25 percent. Although the company's revenue has grown, expenses incurred in the organization have been extraordinarily high and instead of enjoying a positive profit margin, the company has been in the red for the past three years. The leadership team met and discussed bringing in an external consultant to help understand underlying causes for these problems and look for course- correcting solutions.

ORGANIZATION ANALYSIS AND DIAGNOSTICS—ALIGNMENT AND DECISION TO CHANGE

The main purpose for conducting organization diagnostics was to understand the reasons for the problems the organization was having. It was

This case was prepared to serve as a basis for discussion rather than to illustrate either effective or ineffective administrative and management practices. The authors, dates, places, names and organizations may have been disguised at the request of the author or organization.

during the initial consulting meeting that several methods were selected to collect data and more fully understand the concerns.

Capstone Organization Culture Assessment

The first method selected to understand the organization culture and potential area for change was the Capstone Organization Culture Assessment (Beard and Zuniga, 2006). This assessment was administered to gather data in the areas of leadership, decision making, values, planning, and structure. Approximately 700 were invited to participate and with 653 responding, the response rate was 93 percent. Some of the scores clustered near the mean, indicating a traditional organizational climate. AMC presents itself as an established organization, relying on the same products, services, and processes it has always used to remain successful. Given the changes in the marketplace and global economy, AMC cannot rely on business-as-usual practices. Currently, AMC does not appear to be a company poised for transformational growth. This kind of profile indicates status quo. The key findings were threefold:

1. **Leadership:** Scoring lowest in the leadership domain shows that this group of leaders is deficient in the areas of delegating and communicating with direct reports. The main leadership style is one with tendencies toward autocratic and tight management.
2. **Planning:** The planning domain scores also show gaps, specifically in unclear priorities, unclear goals, and no clear strategy.
3. **Decision Making:** The decision-making process is rather sluggish in getting decisions made, relying on a process to make decisions that involves getting buy-in from multiple parties and multiple layers.

Interviews with Key Individuals

While the assessment provided comprehensive information on major aspects of the company, it was not enough to draw conclusions about some of the primary concerns as well as underlying factors. To expedite the process, the assessment findings were used to generate a set of interview questions. This way, the questions were more targeted and specific to the company. Interviews were conducted with four executives, four members of the middle management team, and four non-supervisory team members to delve deeper and help specify gaps in performance and impact.

Five concerns were expressed:

- In the area of quality, they noted an increase in the number of errors made.
- In turnaround time to fulfill customer orders, orders were taking longer to complete; and therefore, more factories were reporting problems filling orders on time.
- With the increase in new employees, they needed more leaders prepared and poised for promotion.
- Given the change of the business and the fact that more change was needed, it was apparent that the existing leadership model was inadequate.
- They had experienced unusually high turnover.
- The most recent customer satisfaction survey indicated a marked decrease in customer satisfaction.

Johari Window

Figure 14-1 shows the Johari window created by Luft and Ingam (1955). In the Johari window, there are four aspects that describe an individual. When applied to organizations, the first domain is open for both insiders and outsiders to see. The second domain is hidden from outsiders but known to those on the inside. The third domain is one that the company doesn't see whereas an outsider could more readily see, otherwise known as blind spots. The fourth domain is one that neither the company nor an outsider readily sees, otherwise described as unknown. When using the concept of the Johari window in this case, the organizational features were plugged into the four quadrants to illustrate key aspects for this organization. Data from the initial meeting, organization culture assessment, and interview findings were used to populate what is seen in Figure 14-2.

Open. Several characteristics are apparent to insiders as well as outsiders. The company has been in business for several decades, and has an annual report that is made available internally as well as externally. The communication that exists is formal and written. This company has a reputation for being hardworking, possessing a strong work ethic, and as willing to do what it takes to fulfill the customer's request.

Figure 14-1. The Johari Window

	Known to self	Not known to self
Known to others	**Open**	**Blind Spots**
Unknown to others	**Hidden**	**Unknown**

Figure 14-2. The Johari Window Applied to Case

	Known to self	Not known to self
Known to others	**Open** • Public history • Formal communication • Strong work ethic • Customer driven	**Blind Spots** • Rigid thinking, keeping status quo • Cautious • Lack top-down communication
Unknown to others	**Hidden** • Productivity • Dependent on CEO • No strong successor • Lack clear direction • Micro-manage	**Unknown** • Lack of trust from leadership toward workforce • Workforce viewed as lazy, not pulling own weight

Hidden. Those who work for AMC are forthright about their reliance on their CEO and that there is no clear successor. They also are acutely aware that the CEO is nearing retirement age and there is heightened anxiety about this fact. Like the CEO, the executive team members also have no succession plan in place. In addition to there being no succession plan in place, there is no strategic plan that is communicated or known in the organization. Interviewees identified patterns of micro-management, tightly held supervision, and that employees felt a general sense of frustration.

Blind Spots. The Capstone Organization Culture Assessment and the interviews revealed several areas that we categorized as blind spots. Culturally speaking, the unwritten rules that were operational in AMC formed expectations around acceptable risk, innovation, limited internal communication, and maintaining status quo. While AMC may not have been cognizant of these patterns, the collected data were confirming of these points.

Unknown. During the interviews, two underlying themes were noted. What the executive interviewees conveyed was confirmed by middle managers and non-supervisory team members. The two themes were:

- Leadership did not trust workforce.
- Leadership viewed workforce as lazy and not pulling their own weight.

These are categorized as unknown since they are not overtly expressed in the workplace. The unknown, in this case, is similar to Schein's description of underlying assumptions that are difficult to discern because they exist on an unconscious level (2010).

FEEDBACK GIVEN AND SOLUTION SELECTED

A report was generated that illustrated the findings from the interviews and the Capstone Organization Culture Assessment. While the report had conclusions and recommendations, a meeting was arranged between the consultant and the leadership team. It was during this meeting that findings were discussed and together, several key decisions were made. The decision was made to form a Guiding Coalition Group in the organization to assume responsibility for the changes that needed to be made. Realizing that resistance to change was likely, organizational readiness for change and flexibility were key, focusing on employees who were accountable to achieve results.

The Guiding Coalition was headed up by an executive champion and comprised of cross-functional employees with a mix of leaders and non-leaders. Under this group's direction, the organization took on the challenge of recreating itself by taking two significant steps:

1. **Master Action Planning Sessions:** The Guiding Coalition Group participated in strategic planning sessions, defining long-term and strategic plans and communicating those plans in the organization. Not only did the organization's scores on the assessment indicate that planning was a deficit, but they also could see consequences of operating their business in a "shoot-from-the-hip" modality. Three sub-groups emerged from this exercise, and each group was tasked with developing an action plan that would ultimately roll up to a Master Action Plan. The first group focused on initiatives to address the business needs at hand, including reducing error, reducing time for order completion, and increasing customer satisfaction. The second group dedicated themselves to succession planning for the CEO and the executive team, reducing turnover, increasing the internal fill rate and promotable leadership positions. The third group worked on devising a communication plan to support the change initiative. It was important to define and communicate the challenge, defining where the company was headed.
2. **Leadership Development:** This was going to be one of the toughest areas to tackle. Going from an autocratic style of management to one characterized as democratic or empowering was no easy feat. This fact led the OD team to create an innovative way to transform their leadership team. In addition to designing an eight-module leadership program, each leader was asked to create an action plan to implement new behaviors, which supported the Master Action Plan. Leaders were asked to work with their team of direct reports and identify solutions to one of four existing problems: 1) error rates, 2) turnaround time for order completion, 3) customer satisfaction, 4) turnover. The leaders were asked to lead these teams, not in an

autocratic way, but in a democratic way—challenging the team to identify solutions to existing problems. Leaders were encouraged to use brainstorming, and in turn, they were to submit their team's findings to the Guiding Coalition Group. This helped foster an empowering type of leadership and atmosphere, while generating potential solutions for the Guiding Coalition Group.

DATA COLLECTION PLAN

Table 14-1 shows the data collection plan for the change management project. Multilevel objectives were created for Levels 1 through 5. The data collection plan shows targets for each level, along with timing of the data collection and who is responsible for collecting data at each level.

For Levels 1 and 2, two brief questionnaires were administered at the conclusion of the intervention and were used to collect reaction and learning data. The main items of concern for Level 1 are relevance and importance of the interventions, as well as action items identified through strategic planning and leadership development. For Level 2, the focus was on increasing knowledge and skills in leadership and planning.

Since the organization scored lower than average on leadership and planning, the main target for Level 3 was increasing organization planning behavior, changing the work effort to be aligned with the initiatives identified on the Master Action Plan, and improving leadership behaviors. Several sources of data were used to measure change in behavior. The main source of data, to examine whether the work effort was changing, was through the company's monthly progress reports. Additionally, action plans were used to gauge the degree that planning behaviors were being used in day-to-day jobs. The 360-degree feedback assessments were also used to measure leadership behaviors and progress made.

Internal HR and business databases were used to collect Level 4 data at six months and one year after the intervention. Specifically, job satisfaction and turnover were collected from HR. Factories reporting problems with time to complete, error rates, and customer satisfaction were collected from the operations department through its business database.

Table 14-1. Data Collection Plan

Level	Objective(s)	Measures/Data	Data Collection Method	Data Sources	Timing	Responsibilities
1	**SATISFACTION/PLANNED ACTION** • Relevance to organization • Importance to organization success • Action items identified on Master Action Plan • Action items identified by leaders participating in leadership development	• Average of 4 on 5-point scale	• Questionnaire	• Guiding Coalition Group • Leaders participating in leadership development	• Immediately following: 1. strategic planning sessions 2. leadership development	• OD team
2	**LEARNING** • Enhancing leadership skills • Improving planning skills	• Average of 4 on 5-point scale	• Questionnaire	• Guiding Coalition Group • Leaders participating in leadership development	• Immediately following: 1. strategic planning sessions 2. leadership development	• OD team
3	**BEHAVIOR CHANGE** • Increase organization planning behavior • Improve leadership behaviors • Change work effort according to Master Action Plan	• Improvement made on Master Action Plan • Improved leadership behavior	• Master Action Plan update report • Action plan • 360 feedback report	• Guiding Coalition Group • Leaders participating in leadership development	• Six months after strategic planning and leadership development	• OD team

Table 14-1. Data Collection Plan *(continued)*

4	**BUSINESS IMPACT** • Increase customer satisfaction • Reduce number of factories reporting problems with time to fulfill customer orders • Reduce turnover • Reduce errors • Increase in promotions	• Reduce time to fulfill customer orders • Decrease turnover • Increase in promotion • Increase customer satisfaction • Reduce errors	• HR database • Quality database • Brief questionnaire	• Guiding Coalition Group • Leaders participating in leadership development	• Six months and one year after strategic planning and leadership development	• OD team
5	**ROI** 25%	***Comments:*** Action plans are provided and explained during leadership development program.				

ROI ANALYSIS PLAN

Table 14-2 shows the ROI Analysis Plan. For the Level 4 data items, two methods were used to isolate the effects of the intervention: 1) trendline analysis and 2) estimates from the Guiding Coalition. In this case, historical data were projected in a trend and compared with the actual data to determine the impact. For error rates and turnover, estimates were also collected through a brief questionnaire from the Guiding Coalition to further corroborate the isolation factor.

Methods of converting data to money involved the use of standard values that had already been identified. The HR department already had identified standard values for turnover and the operations department had previously assigned standard values for error rates.

The project's fully loaded cost profile included the following: costs associated with diagnostics, which included conducting the Capstone Organization Culture Survey; the expense and time of those involved in conducting interviews; the two-fold intervention; facilities expense; administrative overhead; communication and evaluation costs.

Expected intangible benefits included improved communication, improved problem solving, and increased job satisfaction. Targets for communication and reporting were threefold, including the executive team, leadership team, and OD team.

RESULTS

Level 1, Reaction and Planned Action Results

A questionnaire was used to capture reaction data. Overall, the results were positive, indicating that the planning sessions and leadership development were timely and important for the future of the organization. Master Action Plans were created as a result of the planning intervention, and leadership action plans were created as a result of the leadership development initiative.

Level 2, Learning Results

In addition to the Level 1 items, the same questionnaire was used to collect Level 2 data. Items were included on the questionnaire that measured organization learning of leadership and knowledge and skills of planning.

Table 14-2. ROI Analysis Plan for Organization Culture Change Project

ROI ANALYSIS PLAN

Intervention: Organization Culture Change Project **Responsibility:** Lizette Zuniga **Date:**____________________

Data Items (Usually Level 4)	Methods for Isolating the Effects of the Intervention	Methods of Converting Data to Monetary Values	Cost Categories	Intangible Benefits	Communication Targets for Final Report	Other Influences/ Issues During Application	Comments
• Reduction in errors	• Trend Line • Guiding Coalition's Estimates	• Standard value	• Diagnostics • Time of those involved in process • Strategic planning sessions • Leadership development initiative • 360° feedback • Administrative overhead • Communication expenses • Facilities • Evaluation	• Improved communication • Improved problem solving • Increased job satisfaction	• Executives • Guiding Coalition Group • Those involved in leadership development • OD team	• N/A	• There was overlap between those involved in strategic planning and those involved in leadership development
• Reduction in turnover	• Trend Line • Guiding Coalition's Estimates	• Standard value					
• Reduce reporting problems with filling customer orders on time	• Trend Line	• N/A					
• Increase customer satisfaction	• Trend Line	• N/A					
• Increase promotions	• Trend Line	• N/A					

Level 3, Behavior Change Results

The Master Action Plan reflected the specific organization initiatives and behaviors the group felt were necessary to affect the desired change. Six months after the plan was created, the OD team reviewed the monthly progress reports for months one through six to discern the change. Updates on the action plans created by leadership were also collected at the same time (after six months). Finally, 360-degree feedback data were also used to measure changes in awareness and leadership behaviors.

Level 4, Impact Results

The Level 4, Impact results were broken down into five categories, detailed below. See Table 14-3 for an overview of Level 4 results.

Factories Reporting Problems with Time-to-Order Completion. This measure was significant as it also affected customer satisfaction. In the beginning of the project, there was discussion as to the best way to report this measure. Every attempt was made to collect an average time for order completion, but after viewing the data and identifying the multiple types of orders and variations, it was decided that a meaningful way to track this item would be to show whether the trend went downward on the number of factories who reported problems with completing customer orders on time. The baseline showed that 31 factories reported problems with completing customer orders on time. Six months later, the number of factories went down to 18; one year later, the number of factories reporting problems with completing customer orders on time was six.

Error Rates. Error rates were tallied using common work practices of counting the number of error rates per 100. The average number of error rates was 35 per 100 at the start of this project. Six months later, it had decreased to 24 per 100. One year later, the number of error rates significantly decreased to seven per 100.

Turnover Costs. Although turnover had been traditionally low, in the last three years it had increased, due to significant changes in the workplace. One year after the intervention, turnover was reduced from 655 to 275. The trend-line analysis supported the turnover reduction.

Promotions. Trending data showed moderate improvement in promotions. The baseline was 5 percent prior to the intervention. One year later, the percent of promotions had increased to 18 percent.

Customer Satisfaction. Customer satisfaction surveys were conducted routinely in this organization. Two key items used for this project were:

- AMC moving aggressively to meet customer needs
- Long-term commitment to AMC

On both items, customer satisfaction increased. In the beginning of the project, 60 percent indicated that AMC moved to aggressively meet customer needs; whereas one year later, this number reached 82 percent. As for long-term commitment to AMC, 45 percent stated they were committed to a long-term relationship; whereas one year later, this figure was up to 68 percent.

Several intangible benefits were identified in the study and confirmed by actual input from responses on the questionnaire administered to the Guiding Coalition Group. The following benefits were realized as a result of the intervention:

- Improved communication
- Improved problem solving
- Increased job satisfaction

No attempt was made to place monetary values on any of the intangibles.

Level 5, ROI Results

The ROI results, Level 5, were calculated for costs and benefits.

Costs. Table 14-4 outlines the costs of the intervention. Calculating the cost of the intervention follows the categories outlined in the evaluation plan. For diagnostics, the total cost was $12,000. The strategic planning sessions were $112,000. Development and instructor time in leadership development were estimated at $550,000, and the 360-degree assessment costs were $25,000. The materials were $22,000, while a percentage for overhead was

Table 14-3. Level 4 Measures

Level 4 Measure	Baseline (Before Intervention)	Six Months Later	One Year Later
Factories reporting problems with fill-ing customer orders on time	31	18	6
Reduce error rates	35 errors per 100	24 errors per 100	7 errors per 100
Increase customer satisfaction	• 60% indicated they moved to aggressively meet customer needs; • 45% said they were committed to long term relationship	N/A	• 82% indicated they moved to aggressively meet customer needs; • 68% said they were committed to long term relationship
Reduce turnover	655	299	275
Increase promotions	5%	8%	18%

allocated to this intervention with an estimate of $1,500. Facilities, food, and refreshments came to $8,000; and since there were communication tasks and activities involved to help with change management, these costs were factored in, totaling $5,000.

The time involved for those in the Guiding Coalition and those participating in the leadership development program was also factored in. Salaries and benefits multiplied by the total time came to $95,000. The meeting room facilities, food, and refreshments were estimated at $8,000, while the evaluation costs were $18,500. Tallying all of these cost factors together brings the total to $849,000.

Benefits. The determination of monetary benefits for intervention was developed using the methods outlined in the ROI analysis plan. A standard value has routinely been used at AMC to reflect the cost of annual improvement value. As Table 14-5 illustrates, the error rates were converted

Table 14-4. Intervention Costs

Cost of Item	Cost
Diagnostics	$12,000
Strategic planning sessions	$112,000
Leadership development faculty/sessions	$550,000
360° assessment	$25,000
Program materials	$22,000
Overhead	$1,500
Facilities, food, and refreshments	$8,000
Communication	$5,000
Participant salaries (plus benefits) for time involved	$95,000
Evaluation costs	$18,500
Total	**$849,000**

based on a standard value of $750 per error. With 28 errors prevented each month, this yielded a $21,000 monthly improvement. When annualizing this improvement, the value is $252,000. After factoring in the average confidence percentage from the Guiding Coalition Group at 92 percent, the annual improvement is $231,840.

Value for Errors Rates

$750 per error x 28 (change) = $21,000 (monthly)

$21,000 x 12 (months) = $252,000 (annual)

$252,000 x 92% (confidence 5%) = $231,840

The turnover rates were converted based on a standard value of $3,200 per unit of turnover. The majority of those who vacated their positions were in non-supervisory positions. Out-of-pocket expenses were the main cost categories that this organization used for costing turnover for non-supervisors. These categories included sign-on bonuses, recruitment, relocation, and severance. With 380 prevented during the year, this yielded an improvement value of $1,216,000. After factoring in the average confidence percentage from the Guiding Coalition Group, at 85 percent, the annual improvement is $1,033,600. The ROI calculation is on the next page.

Table 14-5. Monetized Benefits

	Annual Change in Measure	Unit Value	Annual Improvement Value	Guiding Coalition Group Confidence %	Adjustments Based on Confidence %
Error rates	336	$750	$252,000	92%	$231,840
Turnover	380	$3,200	$1,216,000	85%	$1,033,600

$$\text{ROI} = \frac{\$1{,}265{,}440 – \$849{,}000}{\$849{,}000} = 49\%$$

CONCLUSIONS AND RECOMMENDTIONS

Several assumptions need to be mentioned in the discussion of conclusions and recommendations. One is that high turnover rates in a tight labor market can make the required hiring numbers an absolute barrier to growth plans. Another assumption made is that the main reason people leave their jobs is due to their relationship with their manager, and while this has been documented in research (Connaughton, 1999), it is not 100 percent certain that this is the primary reason for this organization. This assumption, nevertheless, is worth noting, due to the actions that were taken to develop the leadership pool. One final assumption to highlight is that the estimates collected by the Guiding Coalition Group were credible in isolating the effects of the solution. While a more objective method for isolating the effects was preferred (such as control group), the timing and rollout of the intervention did not allow for this approach in this case. When considering gathering estimates, out of all involved, this group appeared to be in the best position to assign estimates based on its depth of involvement in the project.

While this is a preliminary analysis of the impact of this culture change intervention, results from this study indicate that this intervention appears to be affecting turnover and error rates across the business in a significant way. Reports from the factories indicate a marked decrease among those reporting problems with filling customer orders in a timely manner. Customer satisfaction has also increased, noted on the two items that were particularly relevant for this study. From the action plans that were gathered from those participating in the leadership development initiative, improvement was made in communication and problem solving. Overall the intervention is contributing to behavioral changes among those participating in the Guiding Coalition Group and the sub-group planning sessions.

For purposes of this study, the cost of turnover was a particularly conservative estimate. Cost factors for contract labor, sign on bonuses, referral bonuses, temp help, overtime, and training were not included in the turnover calculations.

Promotion data suggest that there has been a moderate increase. Ongoing collection of promotion data is highly recommended. Data that shows cross-business unit transfers is another way to assess the impact of this intervention.

Improved job satisfaction was identified as an intangible benefit that was desired. At the time of this report, the annual employee satisfaction survey was being prepared for company-wide distribution; therefore, there are no data available to report on this measure at this time.

Recommendations include continuing to track the impact of the intervention, including the job satisfaction data when it will be available. As organization culture change projects are long-term solutions and can take three to five years to take root in an organization and yield desirable change, there would be value in reviewing data collected after year two and year three of this intervention. To see if there is a marked difference in the organizational behaviors that were identified during the culture assessment and diagnostics phase, it is recommended to administer the assessment again after ample time has passed to assess whether these behaviors have changed. Preliminary and informal (anecdotal data) data confirm that the key organizational behaviors of leadership and planning had changed, and the ROI analysis confirms that major business metrics were favorably affected. These findings support that the intervention was a worthwhile effort.

Questions for Discussion

1. For the remaining Level 4 improvement measures that were not converted to money, are there credible techniques to monetize these metrics? Which additional ones would you convert to money? Please explain.
2. Discuss alternatives for isolating the impact for this OD intervention.
3. Are there items of interest that warrant follow up or further understanding/ analysis? If yes, what are they, and what methods would you employ to follow up?

4. What is the best way to communicate these findings?
5. Would the methods used in this case study be relevant for a potential case in your organization? Why or why not?