

**RISK AND INSURANCE MANAGEMENT SOCIETY**

**ORIMS ANNUAL DOUGLAS BARLOW  
PROFESSIONAL DEVELOPMENT DAY**

**GETTING FROM FEELINGS  
TO FACTS THROUGH  
SIX SIGMA**

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Canada**

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William J. Kelly is a Managing Director of J.P. Morgan, a leading, global financial services firm based in New York City. His responsibilities include corporate risk and insurance management and various other corporate resource areas, including corporate procurement, vendor management and global travel. Before joining J.P. Morgan fourteen years ago, he was the Director of Insurance and Risk Management at Merrill Lynch.

Mr. Kelly is presently the Chairman of the International Federation of Risk and Insurance Management Associations \*(IFRIMA), a global body of 30 national and regional associations representing over 20 countries throughout the world and he is also a member of the board of the Global Risk Management Institute. He was the 1995-96 President of the Risk and Insurance Management Society (RIMS), the world's largest such organization with membership of 4,500 entities in the U.S. and Canada, employing 8,000 individual deputy members. Mr. Kelly is a member of the Risk Management Advisory Council of Allianz Insurance Company and the National Accounts Advisory Board of AIG. He is a director of the Spencer Educational Foundation and has served as a member of the Risk Management Executive Council of Protection Mutual Insurance Company. Mr. Kelly is a former Chairman of the Insurance Committee of the American Bankers Association (ABA), served as Chairman of the ABA's 1993 National Security and Risk Management Conference and Co-Chairman of the 1995 Monte Carlo Risk Management Forum. He also received the 1995 Matthew Lenz Risk Management Award from the New York Chapter of CPCU. Mr. Kelly frequently speaks in forums throughout the world and has published many articles on diverse subjects.

Mr. Kelly began his insurance career as an underwriter with the INA in 1972 and subsequently served as an officer of The Chase Manhattan Bank, and as a Vice President of Bankers Trust Company.

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## **GOOD MORNING**

I WOULD FIRST LIKE TO THANK THE PLANNING COMMITTEE FOR AFFORDING ME THE OPPORTUNITY TO COME TO TORONTO...IN FEBRUARY.

I WAS VERY PLEASED TO SEE THAT THE CONFERENCE PLANNERS CHOSE TO HONOR THE LATE DOUGLAS BARLOW, RIMS 1971-72 PRESIDENT. I WAS FORTUNATE TO HAVE THE OPPORTUNITY TO GET TO KNOW DOUG DURING MY YEAR AS PRESIDENT. AT THAT TIME, DOUG WAS APPROACHING NINETY. HE NOT ONLY HAD ONE OF THE MOST ERUDITE MINDS I HAVE ENCOUNTERED BUT ALSO ONE OF THE MOST INQUISITIVE. I THINK HE WAS SUCH AN INTERESTING PERSON BECAUSE HE WAS INTENSELY INTERESTED IN SO MANY THINGS. I'LL ALWAYS REMEMBER THE FIRST CONVERSATION I HAD WITH HIM. HE TALKED ABOUT THE DIFFICULTIES HE WAS ENCOUNTERING IN TRANSLATING A DOCUMENT WRITTEN IN SEVENTEENTH CENTURY FRENCH, THE DISPARITIES BETWEEN CLASSICAL AND CHURCH LATIN, AN ISSUE ON WHICH HE WAS CORRESPONDING WITH THE VATICAN, AND THE VIRTUES OF SINGLE MALT SCOTCH AS THE ONLY TRULY RELIABLE DRINK. I RECALL THE YEAR WE HAD A FUTURIST AS A SPEAKER AT THE RIMS CONFERENCE, AND THERE, SITTING IN THE FRONT ROW, LEANING FORWARD ON HIS CANE, IN RAPT ATTENTION, WAS DOUG. IT IS ESPECIALLY APPROPRIATE TO BEGIN A DISCUSSION OF QUALITY BY REMEMBERING DOUGLAS BARLOW.

THE FACT THAT WE ARE HERE TODAY DISCUSSING THE ISSUE OF QUALITY IS THE RESULT OF A LOT OF GOOD WORK PERFORMED BY MANY DEDICATED PEOPLE. THEY SHOULD BE COMMENDED FOR BRINGING US TO THE POINT AT WHICH A POTENTIALLY MEANINGFUL DISCUSSION CAN BEGIN. I REFER SPECIFICALLY TO THE EFFORTS OF THE QUALITY INSURANCE CONGRESS AND ITS LEADERS.

THE SURVEY CONDUCTED BY THE QUALITY INSURANCE CONGRESS WITH RIMS, SERVED A VALUABLE PURPOSE IN HIGHLIGHTING THE LEVEL OF DISSATISFACTION WHICH EXISTS AMONG RISK MANAGERS WITH RESPECT TO THE SERVICE BEING PROVIDED BY

INSURERS AND INTERMEDIARIES. RECOGNIZING THIS DISSATISFACTION, WE MUST NOW TAKE THE QUALITY EFFORT TO THE NEXT LEVEL AND ACTUALLY INFLUENCE A CHANGE IN PERFORMANCE. WHILE ACKNOWLEDGING THE VALUE OF THE SURVEY, LET US ALSO CONSIDER ITS LIMITATIONS AS A CATALYST FOR CHANGE. DESPITE THE MANY QUESTIONS INCLUDED IN THE SURVEY AND THE DETAILED MANNER IN WHICH THE RESULTS ARE PRESENTED, TO ME, THE SURVEY INDICATES ONLY ONE THING, A GENERAL LEVEL OF DISSATISFACTION. WHETHER AN INSURER OR BROKER RECEIVED AN OVERALL RATING OF 62 OR 71 IS IRRELEVANT. IN TERMS OF LETTER GRADES, WE ARE LOOKING AT C's AND D's, WHICH, AS MY THREE DAUGHTERS CAN TELL YOU, NEVER REPRESENT AN ACCEPTABLE LEVEL OF PERFORMANCE. HOWEVER, WE MUST REMEMBER THAT THE PERFORMANCE OF BROKERS AND INSURERS IS DIRECTLY REFLECTIVE OF THE STANDARDS WE, THE CLIENTS, SET.

BEFORE WE FOCUS ON INSURERS AND INTERMEDIARIES, I THINK, IN FAIRNESS, WE SHOULD ACKNOWLEDGE THAT THERE IS NO SHORTAGE OF MEDIOCRITY IN ANY SEGMENT OF THE RISK AND INSURANCE MANAGEMENT COMMUNITY. I BELIEVE WE RISK MANAGERS WERE WISE TO EVALUATE INSURERS AND BROKERS BEFORE THEY TOOK THE OPPORTUNITY TO EVALUATE US.

LET'S CONSIDER THE TYPES OF QUESTIONS THAT MIGHT APPEAR ON THE RISK MANAGER QUALITY SURVEY:

RATE THE RISK MANAGER ON A SCALE OF 1 TO 5, FIVE BEING THE HIGHEST, RELATIVE TO THE FOLLOWING CRITERIA:

- A THOROUGH KNOWLEDGE OF ALL ASPECTS OF THE ORGANIZATION, ON A GLOBAL BASIS
- ONGOING ACCESS TO AND COMMUNICATION WITH EXECUTIVE MANAGEMENT

- SOLID GROUNDING IN THE DISCIPLINES OF FINANCE AND STATISTICAL ANALYSIS
- UNDERSTANDING OF CURRENT DEVELOPMENTS IN TECHNOLOGY, BOTH AS THEY AFFECT THE RISK PROFILE OF THE FIRM AND ITS INDUSTRY
- CLEAR DEFINITION AND COMMUNICATION OF EXACTLY WHAT IS EXPECTED OF BROKERS AND INSURERS

I SUSPECT OUR GRADES WOULD BE SIMILAR TO THOSE WE HAVE BESTOWED UPON THE REST OF THE COMMUNITY.

WHILE THE SURVEY RESULTS INDICATE GENERAL DISCONTENT, THEY PROVIDE NO BASIS ON WHICH A BROKER OR INSURER COULD FORMULATE A STRATEGY TO IMPROVE QUALITY AND MEASURE THAT IMPROVEMENT.

“QUALITY” REMAINS UNDEFINED EXCEPT AS IT MAY BE SUBJECTIVELY UNDERSTOOD BY EACH INDIVIDUAL RISK MANAGER RESPONDING TO THE SURVEY.

THE QUESTIONS IN THE SURVEY ARE FULL OF UNDEFINED TERMS. WHAT PRECISELY DO WE MEAN BY “TIMELY,” “EFFECTIVELY,” “MEANINGFUL,” “INNOVATIVE?” BECAUSE THESE TERMS ARE VAGUE, WHAT THEY ELICIT IS THE RISK MANAGER’S PERSONAL “FEELING” ABOUT A PARTICULAR ORGANIZATION. HOW ELSE COULD ONE OF THE MOST INNOVATIVE AND EFFICIENT FIRMS IN THE INDUSTRY BE GIVEN FAILING GRADES IN THESE VERY CATEGORIES?

RECOGNIZING THE GENERAL DISSATISFACTION WHICH THE SURVEY HAS SERVED TO HIGHLIGHT, WE NEED TO BRING THE DISCUSSION BEYOND SUBJECTIVE, PERSONAL IMPRESSIONS TO ONE OF OBJECTIVE, MEASURABLE PERFORMANCE. IT IS ONE THING TO ASK, “DO YOU FEEL THIS FIRM IS INNOVATIVE?” HOWEVER, A BETTER QUESTION MIGHT BE, “HOW MANY NEW POLICY FORMS OR COVERAGE TYPES HAS THIS FIRM

BROUGHT TO MARKET IN THE PAST 36 MONTHS?" WE CAN TALK ABOUT WHETHER WE "FEEL" A GIVEN INSURER IS EFFICIENT OR WE CAN LOOK AT ITS EXPENSE RATIO.

UNLESS WE DEFINE AND QUANTIFY, WE CAN NEVER MEASURE. WITHOUT MEASUREMENT WE WILL NEVER GET TO THE POINT, TO USE THE LANGUAGE OF THE SURVEY, AT WHICH WE "FEEL" THAT OUR "NEEDS" ARE BEING MET. IN MANAGING PEOPLE, I HAVE ALWAYS FOUND THAT THE BEST WAY TO GET THEM TO PERFORM AS YOU EXPECT THEM TO, IS TO TELL THEM HOW YOU EXPECT THEM TO PERFORM.

ONE METHOD OF IMPROVING PROCESSES, IN ORDER TO BETTER SERVE THE CLIENT, IS CALLED SIX SIGMA. THE FACT THAT THE NAME OF THE APPROACH, IS ITSELF A MEASUREMENT, IS INDICATIVE OF ITS RIGOROUSLY QUANTITATIVE NATURE. SIX SIGMA IS SIMPLY ONE RELATIVELY HIGH MEASURE OF QUALITY.

SIX SIGMA MEANS THAT FOR EVERY ONE MILLION EVENTS, WHICH CAN BE ANYTHING FROM PRODUCTS TO PREMIUM CALCULATIONS, THERE WILL BE NO MORE THAN 3.4 ERRORS OR DEFECTS. LIKE THE RICHTER SCALE, EACH LEVEL OF SIGMA IS EXPONENTIALLY DIFFERENT.

SIX SIGMA MAY BE A VERY HIGH STANDARD OF QUALITY IF WE ARE MANUFACTURING BALL POINT PENS. HOWEVER, IT MAY NOT BE HIGH ENOUGH IF WE ARE MANUFACTURING JET ENGINE COMPONENTS OR, FOR THAT MATTER, TRADING BILLIONS OF DOLLARS IN THE FINANCIAL MARKETS.

THE SIX SIGMA APPROACH TO ANALYZING PROCESSES HAS BEEN ADOPTED BY A NUMBER OF CORPORATIONS TO VARYING DEGREES, INCLUDING MOTOROLA, GENERAL ELECTRIC, ALLIED SIGNAL, TEXAS INSTRUMENTS AND MY OWN FIRM. AS WE APPLY IT, THE APPROACH INCLUDES SIX SEPARATE PHASES, WHICH CAN BE SUMMARIZED IN THE ACRONYM: DMAIIC: **D**EFINE, **M**EAASURE, **A**NALYZE, **I**MPROVE, **I**MPLEMENT AND **C**ONTROL.

THERE IS NO MAGIC TO SIX SIGMA. IT IS THE DETAILED ANALYSIS OF A PROCESS FROM INCEPTION TO CONCLUSION WITH EXTENSIVE MEASUREMENT AND PROCESS MAPPING. CONSIDER THE PROCESS OF ACQUIRING AN INSURANCE POLICY FROM BROKER SELECTION THROUGH PREMIUM PAYMENT. HOW MANY PHASES, HAND-OFFS AND PEOPLE ARE INVOLVED? PREMIUM PAYMENT IS A SIGNIFICANT PROCESS IN ITSELF WITH INSTITUTIONALIZED INEFFICIENCIES, WHICH WE WILL DISCUSS. IN ADDITION, WITH SO MANY PROPERTY AND CASUALTY COMPANIES IN OPERATION, THERE IS EXTENSIVE DUPLICATION OF RESOURCES WITHIN INSURERS AND BROKERS AND BETWEEN INSURERS AND BROKERS, AND, FROM THE PERSPECTIVE OF TECHNOLOGY UTILIZATION, THE INSURANCE SECTOR HAS BEEN CALLED THE “AMISH OF FINANCIAL SERVICES”. BUT I DIGRESS.

THE KEY POINT IS THE NEED FOR MEASUREMENT AND QUANTIFICATION OF PERFORMANCE. SIX SIGMA IS JUST ONE APPROACH. THE PROGRESSIVE INSURANCE COMPANY DIDN'T NEED SIX SIGMA TO SUCCESSFULLY APPLY METRICS TO ITS CLAIM HANDLING SERVICES.

THE MAIN THOUGHT I WISH TO CONVEY TO YOU IS THAT THIS WHOLE EMPHASIS ON QUALITY IS INTENDED TO ENSURE THE DELIVERY OF WHAT IS MOST IMPORTANT TO THE CLIENT, AS DEFINED BY THE CLIENT. AS CLIENTS OF THE BROKERAGE AND INSURANCE INDUSTRY, IT IS OUR CHALLENGE TO DEFINE WHAT THE ACCEPTABLE STANDARDS OF PERFORMANCE SHALL BE, IN A WAY THAT INDIVIDUAL FIRMS CAN STRATEGICALLY PLAN, MEASURE IMPROVEMENT, AND BE OBJECTIVELY EVALUATED.

IN ORDER TO DO THIS, WE MUST GO BEYOND THE SUBJECTIVE COMPARISON OF INSURERS AND BROKERS TO EACH OTHER AND CONSIDER HOW FIRMS IN OTHER INDUSTRIES, BOTH SERVICE AND MANUFACTURING, DELIVER THEIR PRODUCTS AND ASSESS THE QUALITY OF THEIR PROCESSES.

BEFORE WE BRIEFLY REVIEW THE HIGHLIGHTS OF SIX SIGMA METHODOLOGY, LET ME FIRST STRESS THAT I AM NO EXPERT ON THIS SUBJECT. I HAVE FOUND THAT EVEN

HAVING FAMILIARITY WITH QUALITY IMPROVEMENT METHODOLOGY, WITHIN THE CONTEXT OF INSURANCE, CAN DELUDE ONE INTO FEELING LIKE THE ONE-EYED MAN IN THE LAND OF THE BLIND. BUT, IN REALITY, I AM MORE LIKE THE TEACHER WHO IS ONE CHAPTER AHEAD OF THE CLASS. AFTER THIS MORNING, YOU WILL KNOW AS MUCH AS I DO ON THE SUBJECT AND WILL, I HOPE, SPREAD THE WORD.

IF YOU WISH TO STUDY THIS METHODOLOGY IN DEPTH SO THAT IT MAY BE APPLIED IN YOUR ORGANIZATION, IT WILL BE NECESSARY TO ENGAGE THE SERVICES OF ONE THE MANY AND GROWING NUMBER OF CONSULTANTS WHO HAVE EXTENSIVE EXPERTISE IN THIS AREA.

I HAVE SAID THAT WE MUST GO BEYOND THE SUBJECTIVE COMPARISON OF BROKERS AND INSURERS TO EACH OTHER AND CONSIDER HOW FIRMS IN OTHER INDUSTRIES DELIVER THEIR PRODUCTS AND ASSESS THE QUALITY OF THEIR PROCESSES. A CORPORATION IN A PARTICULAR INDUSTRY WILL NOT GENERALLY IDENTIFY OPPORTUNITIES FOR RADICAL, FUNDAMENTAL IMPROVEMENT BY LOOKING ONLY AT OTHER CORPORATIONS IN THE SAME INDUSTRY.

THE CONCEPT OF SIX SIGMA IS NOT NEW. IN THE 1980's JAPANESE MANUFACTURERS WERE PRODUCING GOODS LIKE WATCHES AND TELEVISIONS, WHICH MET THE SIX SIGMA STANDARD. AT THAT TIME, THE QUALITY OF AMERICAN GOODS IS REPORTED TO HAVE AVERAGED AROUND FOUR SIGMA OR OVER 6,000 DEFECTS PER MILLION ITEMS. HOWEVER, MOTOROLA NOTED THAT THE JAPANESE WERE ONLY APPLYING THIS HIGH STANDARD OF QUALITY IN THE AREA OF PRODUCT PRODUCTION.

JAPANESE FIRMS HAD YET TO RADICALLY IMPROVE THE QUALITY AND PRODUCTIVITY OF BUSINESS PROCESSES. IN THE LATE 80's AND EARLY 90's, MOTOROLA ADOPTED THE SIX SIGMA METHODOLOGY AND IMPROVED ITS PERFORMANCE FROM FOUR TO FIVE AND A HALF SIGMA, REALIZING AN ESTIMATED \$2.2 BILLION IN SAVINGS.

MOTOROLA WAS SOON FOLLOWED BY ALLIED SIGNAL AND TEXAS INSTRUMENTS. IN LATE 1995, GENERAL ELECTRIC COMMITTED TO ITS OWN VERSION OF SIX SIGMA. G.E. ADOPTED A MARTIAL ARTS MOTIF CHARACTERIZING AN INDIVIDUAL'S LEVEL OF

ABILITY TO APPLY DIVERSE STATISTICAL ANALYTICAL TOOLS IN TERMS OF GREEN BELTS, BLACK BELTS, MASTER BLACK BELTS AND CHAMPIONS.

BUT WHAT DOES ALL THAT MEAN FOR US? AREN'T ALL THOSE FIRMS MANUFACTURING COMPANIES? ISN'T INSURANCE PART OF THE FINANCIAL SERVICE SECTOR? FIRST OF ALL I WOULD POINT OUT THAT G.E. IS FAR MORE THAN A MANUFACTURING COMPANY, WITH G.E. CAPITAL AND NBC TELEVISION NETWORK AMONG ITS OPERATIONS. AS WE WILL DISCUSS, ALL BUSINESSES, WHETHER MANUFACTURING OR SERVICE, ARE ENGAGED IN PROCESSES. FOR THIS REASON SIX SIGMA METHODOLOGY CAN BE SUCCESSFULLY APPLIED IN FINANCIAL SERVICES AS IT HAS BEEN TAILORED TO MY FIRM AND HAS NOW BEEN ADOPTED BY AIG IN ITS OWN WAY.

IT IS INTERESTING TO NOTE THAT NONE OF THE HIGHLY SUCCESSFUL QUALITY INITIATIVES I HAVE NOTED AT MOTOROLA, ALLIED SIGNAL, TEXAS INSTRUMENTS AND G.E. INVOLVED AN INDUSTRY CONSORTIUM OR CONGRESS. THEY WERE EACH UNILATERAL EFFORTS BY INDIVIDUAL CORPORATIONS TAILORING THE METHODOLOGY TO THEIR OWN BUSINESS CULTURE AND CLIENT CONSTITUENCY. NOW THAT THE QIC HAS FOCUSED ATTENTION ON THIS ISSUE, I BELIEVE QUALITY EFFORTS WITHIN INSURANCE WILL ALSO BE ON A COMPANY BY COMPANY BASIS, AS HAPPENED AT PROGRESSIVE.

DMAIIC ANALYSIS STUDIES A PROCESS FROM "END TO END." IN AN ENVIRONMENT WHERE DMAIIC IS BEING APPLIED, YOU WILL CONSTANTLY HEAR REFERENCE TO END TO END PROJECTS. IN MY FIRM'S BUSINESS, THIS MAY MEAN FROM THE EXECUTION OF A TRADE TO THE RECEIPT OF THE CONFIRMATION BY THE COUNTERPARTY. IN INSURANCE, IT MAY MEAN FROM THE MOMENT OF THE AUTOMOBILE ACCIDENT TO THE RECEIPT OF THE CLAIM PAYMENT BY THE INSURED. SUCH ANALYSES CAN, BY DEFINITION SPAN THE ORGANIZATION.

INSURANCE COMPANIES AND OTHER FIRMS WHICH INTERACT WITHIN THE INSURANCE AND RISK MANAGEMENT COMMUNITY OFFER AN EXTRAORDINARY OPPORTUNITY FOR END TO END ANALYSES ACROSS THE ORGANIZATIONAL STRUCTURE. I SAY THIS BECAUSE CROSS ORGANIZATIONAL VIEWS ARE RATHER FOREIGN TO INSURERS AND THOSE COMPANIES WHICH MUST WORK WITH THEM. INSURANCE IS PROVIDED IN STOVEPIPES. FIRST, THERE IS UNDERWRITING AND THERE IS CLAIMS. WHY CLAIMS, THE AREA MANAGING THE VERY REASON THE POLICY WAS UNDERWRITTEN, SHOULD BE SEPARATE FROM UNDERWRITING, HAS NEVER BEEN CLEAR TO ME. I THINK PERHAPS IT IS BECAUSE EACH AREA SERVES DIFFERENT CLIENTS. UNDERWRITING SEEKS TO PROVIDE A PRODUCT THAT ITS CLIENT, THE INSURED, WILL BUY, AND CLAIMS SERVES ITS CLIENT, THE STOCKHOLDERS OF THE INSURER, BY KEEPING CASH OUT-FLOW TO A MINIMUM.

CONSIDER THE FACT THAT THE PROPERTY PERSON, THE CASUALTY PERSON, THE PERSONAL LINES' SPECIALIST, THE MANAGEMENT LIABILITY UNDERWRITER, THE BOILER AND MACHINERY GURU AND SO MANY OTHER SPECIALISTS, MAY ALL SIT IN THE SAME BUILDING FOR TWENTY YEARS, UNDERWRITING INSURANCE FOR MANY OF THE SAME CLIENTS, OFTEN ASKING FOR THE SAME INFORMATION, AND YET EACH OF THESE INDIVIDUALS WILL READILY ADMIT TO HAVING LITTLE OR NO UNDERSTANDING OF WHAT ANY OF THE OTHERS DO.

I'M SURE I COULD STILL BE SITTING IN AN INSURANCE COMPANY UNDERWRITING CRIME INSURANCE WITH MY TRUSTY UNDERWRITING MANUAL. BUT AFTER CHASE HIRED ME AS A CRIME INSURANCE SPECIALIST IN 1973, THE FIRST THING I DID WAS SAY I WANTED TO LEARN EVERY OTHER KIND OF PROPERTY AND CASUALTY COVERAGE. MY BOSS, REPLIED, "WELL NONE OF IT'S ALL THAT DIFFICULT BUT THERE'S A LOT OF IT". IN FACT, IT'S NOT ALL THAT DIFFICULT AND TO HAVE ALLOWED SPECIALIZATION TO HAVE EVOLVED TO THE POINT THAT IT HAS AND THEN BE MULTIPLIED GEOGRAPHICALLY AND BE FURTHER DUPLICATED BY ALL OTHER FIRMS INTERFACING WITH INSURERS, HAS CONTRIBUTED TO INSURANCE BEING UNNECESSARILY FRAGMENTED. FOR ALL THESE REASONS, THE INSURANCE

ENVIRONMENT CRIES OUT FOR END TO END ANALYSES, ACROSS THE ORGANIZATION, ACROSS ALL LINES, EMBRACING ALL THE FIEFDOMS.

## **DMAIIC**

I WOULD LIKE TO GIVE YOU A GREATER UNDERSTANDING OF DMAIIC, THE ACRONYM, AS I HAVE SAID, STANDS FOR **D**EFINE, **M**EASURE, **A**NALYZE, **I**MPROVE, **I**MPLEMENT AND **C**ONTROL. WE WILL LOOK IN DEPTH AT JUST THE FIRST TWO STEPS TO GIVE YOU SOME FEELING FOR THE RIGOROUS NATURE OF THIS HIGHLY QUANTITATIVE ANALYTICAL PROCESS. HOWEVER, THE HANDOUT I HAVE PROVIDED IS AN ABSTRACT OF A MUCH MORE EXTENSIVE AND DETAILED EXPLANATION OF THE WHOLE PROCESS. WE WILL LOOK FIRST AT THE MANNER IN WHICH THE SCOPE OF AN END TO END ANALYSIS IS DEFINED.

## **DEFINE**

ALTHOUGH SIX SIGMA IS RIGOROUSLY QUANTITATIVE IN NATURE, IT ALSO REFLECTS AN AWARENESS OF THE FACT THAT THIS TOOL IS BEING APPLIED BY HUMAN BEINGS, WITHIN A SOCIAL AND POLITICAL CONTEXT. IT SPECIFICALLY RECOGNIZES THE NEED TO CAREFULLY ADDRESS THE WIIFM FACTOR. WIIFM IS AN ACRONYM WHICH STANDS FOR “WHAT’S IN IT FOR ME?” IT IS CONSIDERED CRITICAL TO CAREFULLY IDENTIFY AND ALIGN THE RESOURCES NECESSARY TO SUCCESSFULLY CARRY OUT AN END TO END PROJECT. THIS INCLUDES THE CAREFUL ARTICULATION OF A VARIETY OF ROLES. THE TEAM MEMBERS SELECTED WILL INCLUDE SUBJECT MATTER EXPERTS, LINE AND STAFF MANAGERS AND PROCESS REENGINEERS. IN THE PROCESS OF ASSIGNING ROLES, A DETAILED ANALYSIS OF THE KEY STAKE HOLDERS AND THEIR PERSONAL ATTITUDES TOWARD THE PROJECT IS DOCUMENTED IN TERMS OF WHO IS COMMITTED TO THE PROJECT? WHO IS NOT? AND WHO NEEDS TO BE? IN SHORT, IF THOSE WHO NEED TO BE COMMITTED ARE NOT, THERE IS NO POINT IN PROCEEDING.

ONCE THE RIGHT RESOURCES ARE IDENTIFIED AND A TEAM CHARTER IS DOCUMENTED, THE DEFINITION OF THE PROJECT OBJECTIVES AND OUTCOMES CAN BE

FORMALIZED. THE OVERRIDING PRINCIPLE HERE IS THAT THE ACHIEVEMENT OF THE OBJECTIVES AND OUTCOMES MUST SERVE A BUSINESS NEED. A BUSINESS NEED IS ALWAYS DEFINED IN TERMS OF SOMETHING THE CLIENT CONSIDERS TO BE CRITICAL TO QUALITY, A CTQ. IN THE INSURANCE CONTEXT THE CTQ COULD BE QUICKER CLAIM PAYMENTS, THAT IS, AGAIN ASSUMING, IN CLAIMS, THAT THE INSURED IS THE CLIENT.

WITH THE OBJECTIVES AND OUTCOMES DEFINED, A PROJECT PLAN CAN BE DOCUMENTED. THIS PLAN EXPRESSLY ARTICULATES THE ACTIVITIES NECESSARY TO COMPLETE THE PROJECT AND DETAILS THE OVERALL SCHEDULE INCLUDING MILESTONES AND RESOURCE REQUIREMENTS.

WITH THE PROJECT PLAN ARTICULATED, THE TEAM IS IN A POSITION TO FORMULATE THE COMMUNICATION PLAN. THE COMMUNICATION PLAN IS DESIGNED WITH CONSIDERATION OF THE FOLLOWING QUESTIONS:

- WHO NEEDS TO KNOW? WHAT IS THE TARGET AUDIENCE? ..SPONSORS, STAKEHOLDERS, TEAM MEMBERS, PRODUCTIVITY OFFICE, EMPLOYEE POPULATION, CLIENTS, RATING AGENCIES, REGULATORS,...
- WHAT DO THEY NEED TO KNOW?
- HOW FREQUENTLY?
- BY WHAT MEANS? WRITTEN, ELECTRONIC, THROUGH ORGANIZED EVENTS, SYMBOLIC GESTURES AND/OR FACE TO FACE ONE ON ONE, OR ONE TO MANY COMMUNICATIONS.

ANOTHER REAL WORLD ASPECT OF THE DMAIIC PROCESS IS THE FACT THAT IT CONTINUALLY LOOPS BACK TO REEVALUATE EARLIER ASSUMPTIONS AND DECISIONS.

THESE CHECKPOINTS, WHICH MUST BE PASSED THROUGH BEFORE THE NEXT PHASE CAN BE INITIATED, ARE CALLED TOLLGATES.

WHEN WE BELIEVE WE HAVE FULLY COMPLETED THE TASKS WHICH COMPRISE THE “DEFINE” SEGMENT, THE FOLLOWING QUESTIONS MUST BE ANSWERED BEFORE PROCEEDING TO THE NEXT PHASE.

## **DEFINE PHASE: TOLLGATES**

- DOES THE PROJECT REPRESENT A TRUE BUSINESS OPPORTUNITY?
- WERE THE “FACTS” USED TO DEVELOP THE BUSINESS CASE?
- DO WE HAVE THE RIGHT TEAM?
- DO ALL TEAM MEMBERS KNOW THE PROJECT SCOPE?
- DID WE INVOLVE THE RIGHT STAKE HOLDERS?
- DO WE HAVE AN APPROPRIATE COMMUNICATION PLAN?
- DO WE HAVE A DETAILED PROJECT PLAN?

HAVING JUST LIGHTLY ADDRESSED THE FIRST LETTER IN THE DMAIIC ACRONYM, I HOPE YOU HAVE BEGUN TO REALIZE THAT THIS IS NOT A WHIMSICAL UNDERTAKING. IT IS A VIGOROUS SELF-CHECKING PROCESS FROM BEGINNING TO END. THIS DEFINITION PHASE IS PERHAPS ANALOGOUS TO DISCUSSIONS WHICH TAKE PLACE TODAY AROUND DECISIONS TO COMMIT MILITARY RESOURCES,... WHAT EXACTLY DO WE SEEK TO ACCOMPLISH? WHAT RESOURCES ARE NECESSARY TO ACHIEVE IT? AND HOW WILL WE KNOW WHEN OUR MISSION IS COMPLETED?

## **MEASURE**

AS I HAVE SAID, THE “M” IN DMAIIC STANDS FOR MEASUREMENT. THE SIGNIFICANCE OF THE MEASUREMENT PHASE OF THE PROCESS CANNOT BE OVEREMPHASIZED. THE FUNDAMENTAL PRINCIPLE OF SIX SIGMA IS THAT IF SOMETHING CAN’T BE MEASURED THEN THERE IS NO POINT IN DISCUSSING IT, AS WE WILL NEVER BE ABLE TO ASSESS

IMPROVEMENT. IMPLICIT IN THIS PRINCIPLE, HOWEVER, IS THE BELIEF THAT EVERY PROCESS CAN BE QUANTIFIED AND MEASURED IN SOME WAY.

BEFORE ANY MEASUREMENT CAN BEGIN, A COMPREHENSIVE, IN-DEPTH UNDERSTANDING OF THE PROCESS ON AN END TO END BASIS MUST BE ACHIEVED:

WHAT ARE THE ACTIVITIES?

WHAT ARE THE CRITICAL METRICS?

WHAT SYSTEMS ARE INVOLVED?

WHAT PEOPLE ARE INVOLVED?

WHAT DATA AND INFORMATION IS CRITICAL?

WHAT IS THE VOICE OF THE CUSTOMER?

WHAT IS THE VOICE OF THE PROCESS?

WHAT IS THE CURRENT PERFORMANCE LEVEL RELATIVE TO THOSE ATTRIBUTES WHICH THE CLIENT VIEWS AS CRITICAL TO QUALITY?, CTQ's. IN DMAIIC WE ACTUALLY TALK ABOUT WHAT MIGHT DELIGHT THE CLIENT.

IN INSURANCE, FOR EXAMPLE, IF THE CLIENT SUBMITS A NOTICE OF A DIRECTORS AND OFFICERS LIABILITY CLAIM, IS THE CLIENT MOST ANXIOUS TO QUICKLY RECEIVE A COMPREHENSIVE RESERVATION OF RIGHTS LETTER FROM THE INSURER'S ATTORNEY ADVISING OF EVERY POSSIBLE WAY IN WHICH THE CLAIM MAY NOT BE COVERED? OR, MIGHT THE CLIENT BE MORE DELIGHTED TO RECEIVE AN ACKNOWLEDGEMENT OF THE INSURER'S DESIRE TO BE OF ASSISTANCE, NOTING THAT CERTAIN COVERAGE ISSUES MAY NEED TO BE ADDRESSED.

TO ENSURE A COMPLETE AND COMMON UNDERSTANDING OF A PROCESS AND TO ESTABLISH A BASE LINE FROM WHICH TO GENERATE NEW IDEAS, PROCESS MAPPING IS USUALLY ESSENTIAL. AT THE HIGHEST LEVEL THE PROCESS MAP CAPTURES WHAT I PROMISE WILL BE THE LAST ACRONYM FOR THIS MORNING: SIPOC. THE SUPPLIERS, THEIR INPUTS, THE PROCESS STEPS, THE OUTPUTS AND THE CLIENTS. DETAILED PROCESS MAPS CAN BE QUITE COMPLEX.

YOU MAY BE FAMILIAR WITH STANDARD PROCESS MAPPING SYMBOLS



**OUTCOME**



**CONNECTOR**

**TRIGGER**



**DECISION**



**CONTROL POINT**

PROCESS MAPPING IS A DISCIPLINE IN ITSELF, WITH WHOLE COURSES OF STUDY DEVOTED TO IT.

I WILL NOT ATTEMPT IT HERE, BUT CONSIDER HOW COMPLEX THE PROCESS MAP FOR THE CREATION AND SYNDICATION OF A NEW INSURANCE PRODUCT WOULD BE. A LARGE PLACEMENT OF SAY 400 MILLION MAY INVOLVE OVER 30 PRIMARY INSURERS, EXTENSIVE REINSURANCE AND RETROCESSION. THE NEED TO INVOLVE SO MANY CARRIERS IN A LARGE PLACEMENT RESULTS FROM THE LIMITED CAPACITY OF ANY ONE INSURER. WITH, ACCORDING TO A.M. BEST, PERHAPS 2000 SEPARATE PROPERTY AND CASUALTY INSURERS IN NORTH AMERICA, ONLY ABOUT 70 HAVE POLICYHOLDER SURPLUS IN EXCESS OF ONE BILLION DOLLARS.

IT IS IMPORTANT TO ENSURE THAT ALL ELEMENTS OF THE PROCESS ARE BEING CONSIDERED.

THE INVENTORY OF THE ELEMENTS COMPRISING THE PROCESS MUST INCLUDE

- PRODUCTS: PRODUCTS OFFERED, SECTORS SERVICED
- ORGANIZATION: ROLES AND RESPONSIBILITIES, REWARDS AND RECOGNITION, TRAINING

- TECHNOLOGY: HARDWARE/SOFTWARE INFORMATION ARCHITECTURE
- FACILITIES: CENTRALIZATION, DECENTRALIZATION, SHARED SERVICES
- POLICIES: CONTROL, QUALITY, STANDARDS

ONCE THE PROCESS IS THOROUGHLY UNDERSTOOD AND MAPPED, SOME QUICK HIT IMPROVEMENTS MAY BE EVIDENT. CONSIDER PREMIUM PAYMENT. IN AN AGE WHEN MONEY CENTER BANKS CAN TRANSFER HUNDREDS OF BILLIONS OF DOLLARS A DAY, WE STILL PAY INSURANCE PREMIUMS AS WE DID IN 1800, PASSING PAPER FROM THE INSURER TO THE BROKER TO THE INSURED TO THE BROKER, AND EVENTUALLY, BACK TO THE INSURER. A SIMPLE PROCESS MAP MIGHT SUGGEST THAT TWO OF THOSE 5 STEPS ARE NOT NECESSARY. THE SAME PROCESS FLOW ALSO OCCURS IN REVERSE WITH RESPECT TO CLAIMS PAYMENT.

AS A RESULT, A SIGNIFICANT AMOUNT OF MONEY IS CONTINUALLY IN THE HANDS OF THE INTERMEDIARY BROKER, IN TRANSIT FROM THE INSURED TO THE INSURER IN THE FORM OF PREMIUMS AND FROM THE INSURER TO THE INSURED IN THE FORM OF CLAIMS PAYMENTS. BECAUSE THESE FUNDS ARE NOT OWNED BY THE INTERMEDIARY, THE BROKER REPORTS THESE BALANCES AS "FIDUCIARY FUNDS". ALTHOUGH THE BROKER IS HOLDING AND INVESTING THE FUNDS OF THE INSURED AND THE INSURER IN A FIDUCIARY CAPACITY, THE INSURANCE BROKER IS PERHAPS THE ONLY FIDUCIARY WHICH PROVIDES NO INVESTMENT INCOME TO THE OWNERS OF THE FUNDS IT INVESTS. IS THIS A MATERIAL ISSUE? THE LARGEST BROKER'S FIDUCIARY FUND BALANCE AS OF THE END OF THE THIRD QUARTER 1999 WAS \$3.5 BILLION DOLLARS, GENERATING ANNUALIZED EARNINGS FOR THIS ONE FIRM OF OVER 160 MILLION DOLLARS, EXTRAPOLATING FROM THESE NUMBERS, THE BROKERAGE INDUSTRY AS A WHOLE COULD PERHAPS BE HOLDING, FIDUCIARY FUNDS OF FROM \$5 TO \$10 BILLION IN VALUE ON AVERAGE. THE OWNERS OF THESE FUNDS EARN NOTHING ON THEM

AND THE “FIDUCIARIES” REALIZE HUNDREDS OF MILLIONS IN REVENUES, WHICH DROP DIRECTLY TO THEIR BOTTOM LINE.

AT A TIME WHEN RISK MANAGERS HAVE DEVOTED SIGNIFICANT ENERGY TO THE ISSUE OF BROKER CONTINGENCY FEES, IS THIS NOT ANOTHER ELEMENT OF COMPENSATION WHICH SHOULD BE CONSIDERED? ESPECIALLY SINCE THE HUNDREDS OF MILLIONS IN REVENUE GENERATED BY FIDUCIARY FUNDS COULD OTHERWISE BE GOING TO FUND RISK, THE FUNDAMENTAL CLIENT NEED. THAT IS, UNLESS, IN THE CASE OF FIDUCIARY FUNDS, THE BROKER’S CLIENT IS THE BROKER.

TO RETURN TO DMAIIC, NOW THAT THE PROCESS IS THOROUGHLY UNDERSTOOD AND DOCUMENTED WITH QUICK HIT IMPROVEMENTS IDENTIFIED, WE CAN BEGIN TO GET TO THE HEART OF THE MATTER AND START TO DETERMINE WHAT THE CLIENT CONSIDERS CRITICAL TO QUALITY. THE CLIENT HAS MANY VOICES:

- COMPLAINTS
- COMPLIMENTS
- PRODUCT RETURNS
- PRODUCT / SERVICE SALES PREFERENCES
- CONTRACT CANCELLATIONS
- MARKET SHARE CHANGES
- DEFECTIONS / ACQUISITIONS
- REFERRALS
- CLOSURE RATES ON SALES PITCHES
- OTHERS: LIKE THE NATURE OF INDIVIDUAL CLIENT HITS ON A CORPORATE WEBSITE.

THESE VARIOUS VOICES CAN BE HEARD BY TUNING INTO DIFFERENT MEDIA. RESEARCH MAY EMBRACE INTERVIEWS, FOCUS GROUPS, SURVEYS AND OBSERVATIONS. LESS FORMAL LISTENING POSTS CAN BE ESTABLISHED GATHERING INPUT FROM CUSTOMER SERVICE REPS, SALES REPS AND THOSE INVOLVED IN BILLING, ACCOUNTS RECEIVABLE AND COLLECTIONS. THERE IS ALSO INTERNAL AND EXTERNAL DATA

AVAILABLE WITHIN THE FIRM, FROM INDUSTRY EXPERTS, SECONDARY SOURCES AND COMPETITORS.

AS I HAVE SAID, AND IT BEARS REPEATING, I BELIEVE ONE OF THE MAJOR DISCONNECTS IN THE INSURANCE BUSINESS BETWEEN UNDERWRITING AND CLAIMS HANDLING, IS A SHIFT IN THE UNDERSTANDING OF WHO THE CLIENT IS. IN THE UNDERWRITING PROCESS, THE CLIENT IS CLEARLY THE INSURED AND THE PRODUCT MUST BE TAILORED TO THE INSURED’S EXPECTATIONS. IN THE CLAIMS PROCESS, THE CLIENT SEEMS TO BE TO THE MANAGEMENT AND SHAREHOLDERS OF THE INSURER AND THE CLAIMS PROCESS IS DESIGNED TO SERVE THEIR NEED TO MINIMIZE CASH OUTFLOW. THIS BECOMES EVEN CLEARER WHEN DEALING WITH ADJUSTMENT FIRMS WHOSE CLIENT IS, IN FACT, THE INSURANCE COMPANY. TO ADD TO THE CONFUSION, ONE SENIOR UNDERWRITER RECENTLY TOLD ME THAT MANY OF HIS UNDERWRITING COLLEAGUES THINK THE CLIENT IS THE BROKER.

ONCE THE PRODUCT FEATURES, SERVICE FEATURES, ATTRIBUTES, DIMENSIONS AND CHARACTERISTICS, WHICH ARE CRITICAL TO QUALITY IN THE EYES OF THE CLIENT, (THE CTQ’s) HAVE BEEN IDENTIFIED, APPROPRIATE METRICS CAN BE DEVELOPED, AROUND CATEGORIES SUCH AS:

<u>CATEGORIES</u>	<u>EXAMPLES</u>
SPEED	<ul style="list-style-type: none"> <li>• PROVIDE POLICY WITHIN 10 DAYS OF RENEWAL</li> <li>• RESPOND TO AUTOMOBILE CLAIM REPORT WITHIN TWO HOURS</li> </ul>
ACCURACY	<ul style="list-style-type: none"> <li>• NO ERRORS IN POLICY DOCUMENTATION</li> </ul>
SERVICE	<ul style="list-style-type: none"> <li>• 24/7 AVAILABILITY</li> <li>• NO MORE THAN THREE RINGS ON THE PHONE</li> </ul>
BEFORE	ANSWERING

- IF A TAPE RECORDING ANSWERS, NO MORE THAN 20 SECONDS UNTIL PICK-UP BY A HUMAN

COST

- THE CLIENT MAY NOT WISH TO PAY MORE THAN SO MANY BASIS POINTS PER MILLION OF COVERAGE

WITH THESE METRICS, CURRENT PERFORMANCE CAN BE MEASURED AND FUTURE GOALS TARGETED:

CTQ	METRIC	CURRENT PERFORMANCE	TARGET
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I BELIEVE YOU CAN SEE HOW THIS APPROACH CONTRASTS WITH THE QIC SURVEY, WHICH USED WORDS LIKE “TIMELY”, WITHOUT DEFINING THEM. AS I SAID, IF WE CAN’T MEASURE, WE HAVE NO BASIS FOR DISCUSSION.

METRICS WILL COMPRISE BOTH EFFICIENCY MEASURES AND EFFECTIVENESS MEASURES.

EFFICIENCY MEASURES WILL INCLUDE:

- COST PER TRANSACTION
- TIME PER ACTIVITY
- AMOUNT OF REWORK
- TURNAROUND TIME
- VARIABILITY OF ACTIVITY

EFFECTIVENESS MEASURES WILL INCLUDE:

- PERCENT DEFECTIVE
- NUMBER OF ERRORS
- TOTAL RESPONSE TIME
- INVOICE BILLING ACCURACY
- REVENUE

THE NEXT STEP, LOGICALLY, IS TO CREATE A STATISTICALLY SOUND PLAN FOR DATA COLLECTION AND GRAPHIC REPRESENTATION OF THE DATA COLLECTED, TAKING INTO CONSIDERATION WHAT DATA ALREADY EXISTS. ONE OF THE MOST INTERESTING ASPECTS OF THIS PHASE, TO ME, IS GRAPHIC REPRESENTATION, BECAUSE THE MANNER IN WHICH THE INFORMATION IS DISPLAYED IS CRITICAL TO UNDERSTANDING THE PROCESS BEING EVALUATED.

MOST OF US ARE FAMILIAR WITH GANT CHARTS USED IN PROJECT MANAGEMENT. HOWEVER, WE ARE GENERALLY NOT AS FAMILIAR WITH RUN CHARTS, PARETO CHARTS, SCATTER DISPLAYS, HISTOGRAMS AND FISH BONE DIAGRAMS, EACH OF WHICH OFFER A DIFFERENT PERSPECTIVE ON THE PROCESS.

HAVING DETERMINED THE CTQ's, THE TYPE OF MEASURES TO BE COLLECTED AND THE NATURE OF THE SHORT/LONG TERM DATA, SIGMA PERFORMANCE CAN BE MEASURED, THERE ARE DIFFERENT WAYS TO MEASURE, BASED ON THE NATURE OF THE DATA AND I WILL NOT TAKE YOU THROUGH THE COMPLEXITIES OF THE CALCULATIONS THIS MORNING. HOWEVER, SIMPLISTICALLY PRESENTED, THE BASIC SIGMA SCALE IS:

<b>SIGMA</b>	<b>DEFECTS PER MILLION</b>
2	308,537
3	66,807
4	6,210
5	233
6	3.4

A "DEFECT" IS A FAILURE TO MEET A CTQ.

BEFORE LEAVING THE MEASUREMENT PHASE, WE MUST CONSIDER THE FOLLOWING TOLL GATE QUESTIONS:

## **MEASUREMENT PHASE: TOLLGATES**

- DID WE VIEW THE PROCESS HOLISTICALLY: ACTIVITIES, INFORMATION, PEOPLE, SYSTEMS, ETC.?
- WAS THE PROCESS VIEWED AT THE APPROPRIATE LEVEL?
- WERE THE CLIENT NEEDS IDENTIFIED AND PRIORITIZED?
- WERE MEASURABLE CRITICAL TO QUALITY REQUIREMENTS IDENTIFIED? DO THESE CORRELATE TO THE IMPORTANT CLIENT NEEDS?
- WAS THE CURRENT SIGMA LEVEL OF PERFORMANCE DETERMINED FOR THE CRITICAL METRICS?
- WERE TARGETS ESTABLISHED BASED ON CLIENT NEEDS?
- DID WE REFINE THE PROBLEM AND GOAL STATEMENTS?

HAVING SPENT SOME TIME ON DEFINITION AND MEASUREMENT, WE WILL BRIEFLY NOTE THE FOUR OTHER PHASES OF DMAIIC: ANALYZE, IMPROVE, IMPLEMENT AND CONTROL. HOWEVER, THERE IS MORE DETAIL IN THE HANDOUTS. BY THE WAY IF YOU SEARCH “SIX SIGMA” ON THE WEB YOU WILL GET OVER 3000 HITS.

## **ANALYZE**

THE OBJECTIVE OF THE ANALYSIS PHASE IS TO STUDY THE DATA COLLECTED IN THE MEASUREMENT PHASE, TO DETERMINE WHY THE PROCESS PERFORMS AS IT DOES TODAY, IDENTIFYING AND QUANTIFYING CAUSE AND EFFECT RELATIONSHIPS.

## **IMPROVE**

THE OBJECTIVE OF THE SUBSEQUENT IMPROVEMENT PHASE IS TO IDENTIFY IMPROVEMENT BREAKTHROUGHS, IDENTIFY HIGH GAIN ALTERNATIVES, SELECT THE PREFERRED APPROACH, DESIGN THE FUTURE STATE, DETERMINE THE NEW SIGMA

LEVEL, PERFORM COST BENEFIT ANALYSES, DESIGN DASHBOARDS AND SCORECARDS AND CREATE A PRELIMINARY IMPLEMENTATION PLAN.

OTHER FIRMS THAT HAVE UTILIZED DMAIIC METHODOLOGY HAVE NOT BROKEN OUT IMPLEMENTATION INTO A SEPARATE PHASE. HOWEVER, WE WANTED TO ENSURE THAT WE DID NOT SIMPLY DETERMINE THE WAYS TO IMPROVE THE PROCESS AND DECLARE VICTORY, WITHOUT ACTUALLY IMPLEMENTING THE CHANGES. HENCE, WE INCLUDED A FIFTH SEPARATE PHASE OF IMPLEMENTATION.

## **IMPLEMENT**

THE OBJECTIVE IN THIS IMPLEMENTATION PHASE IS TO DEVELOP A PILOT IMPLEMENTATION PLAN, EXECUTE THE PLAN, LEARN FROM THE RESULTS, CREATE A FULL IMPLEMENTATION PLAN, EXECUTE THE ULTIMATE SOLUTION, MEASURE THE RESULTS, DEVELOP CONTROL METHODS AND MANAGE THE CHANGE.

## **CONTROL**

THE FINAL PHASE OF DMAIIC IS CONTROL, THE OBJECTIVE OF WHICH IS TO RUN THE NEW PROCESS, CONTINUOUSLY IMPROVE THE ENGINE, REPORT DASHBOARD AND SCORECARD DATA, CREATE FEEDBACK LOOP FOR AREAS OF FOCUS, ADJUST AS NEEDED, AND IDENTIFY REPLICATION OPPORTUNITIES, THAT IS, IDENTIFYING OTHER SIMILAR PROCESSES THAT COULD BE IMPROVED BY SIMILAR MEANS.

## **CONCLUSION**

IN CONCLUSION, I WOULD LIKE TO ASK YOU TO CONSIDER THE ISSUE OF QUALITY ON TWO LEVELS. CLEARLY THE OPPORTUNITY FOR IMPROVED EFFICIENCY IN THE INSURANCE AND RISK MANAGEMENT SECTOR IS ENORMOUS. HOWEVER, THERE IS ALSO OPPORTUNITY FOR RISK MANAGERS TO PLAY AN IMPORTANT ROLE IN YOUR OWN FIRMS' QUALITY INITIATIVES. AS YOU MAY HAVE ALREADY DIVINED, THE

DMAIIC PROCESS IS NOT SO DIFFERENT FROM THE CLASSIC RISK MANAGEMENT MANTRA ON RISK: IDENTIFY, EVALUATE, MITIGATE, FUND IF NECESSARY AND MONITOR. RISK MANAGERS HAVE ALWAYS BEEN PROCESS ANALYSTS, CONTINUOUSLY SEEKING TO DETERMINE WHICH ASPECTS OF A PROCESS PRESENTED RISKS. SIX SIGMA IS ANOTHER TOOL THROUGH WHICH WE MAY NOT ONLY IDENTIFY RISKS BUT INEFFICIENCIES.

MOST INSURANCE AND RISK MANAGERS ARE IN THE CATEGORY OF WHAT ON WALL STREET ARE CALLED, "NON-REVENUE GENERATORS," THAT IS, PEOPLE, LIKE MYSELF, WHO DO NOT CONTRIBUTE DIRECTLY TO THE BOTTOM LINE, BUT NEVERTHELESS HAVE THE TEMERITY TO OCCUPY SPACE AND SUCK UP AVAILABLE OXYGEN. WHATEVER TYPE OF FIRM YOU MAY WORK FOR, SIX SIGMA/DMAIIC METHODOLOGY OFFERS YOU A TOOL WITH WHICH TO INCREASE YOUR CONTRIBUTION TO THE FIRM, NOT ONLY BY DECREASING EXPENSE, BUT BY IMPROVING MARGINS AND, IN FACT, INCREASING REVENUE.

MY GOAL THIS MORNING, WAS SIMPLY TO INTRODUCE THIS METHODOLOGY TO YOU. I HOPE YOU PURSUE IT FURTHER AND FIND IT HELPFUL.

I CAN THINK OF NO BETTER CLOSING THAN TO QUOTE FROM MY FRIEND DOUGLAS BARLOW'S LAST PUBLISHED ARTICLE IN WHICH HE REMINDS US THAT, "ALL MANAGEMENT IS RISK MANAGEMENT."

THANK YOU.