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Aerospace 2001

Performance Excellence - A QFD Approach *by James P. (Jim) Walden, Boeing Airlift and Tanker Programs*. This QFD analysis is being undertaken to help Boeing Airlift and Tankers better understand how well the How's (A & T's major thrusts and initiatives) address the What's (the 18 items within the Criteria for Performance Excellence), analyze relationships for synergy/trade-offs, identify gaps and redundancies, and bench-mark progress against other organizations through competitive comparisons. The paper will include a complete House of Quality and a detailed analysis of the relationship and correlation matrices, ratings, weightings, and comparisons.

Parametric Paired Comparison: A New Methodology for Rapid and Accurate Customer Needs Assessment *by Pierre H. Routhier, Pratt & Whitney.* In a technical environment where complex customer needs go far beyond "verbatim," assessment of needs and relative weights can become a daunting task. Facing these realities, a relatively simple yet powerful methodology - Parametric Paired Comparison (PPC) - was developed, to analyze and highlight critical customer needs in a fraction of the time, while eliminating bias and subjectivity. The methodology, which can be used for such complex products as aircraft jet engines, power generation systems and electronic devices in 1½ to 2 days, will be described in this presentation through real-life examples, as well as implementation guidance.

High Tech / Software / Telecommunication 2001

QFD Killed My Pet (Project) - Using QFD to Confirm Market Needs for New Technology *by Dwight Delgado, Fusion UV Systems and Glenn Mazur, Japan Business Consultants, Ltd.* We assumed customers would be as excited as us about the advanced technology of our new product. We were surprised at what they told us during our QFD-guided customer visits early in the development. To avoid disaster, we had to rethink our strategy and redesign a more successful product line. This paper shows how QFD can save high-tech companies from making costly market decision errors by determining customer benefit of a new technology or features before it actually commits resource.

Integrated "Demanded Quality Deployment and Quality Function Deployment (QFD) *by Rajendra Prasad, Tata Consultancy Services, USA and Gargi Keeni, Ph.D., Tata Consultancy Services, India.* The global competition among software companies increases the risk of not knowing what your customer needs are. The traditional zero bugs definition of software quality is insufficient to discover the latent needs of the customer in order to sustain this competitiveness. This paper will use Demanded Quality Deployment and a Quality Plan to identify customer needs and translate them into solutions.

Integration of Assembly Requirements in Early Stages of Product Planning *by Dipl.-Ing. Stefan Berger and Dr.-Ing. Jürgen Hoffmann, Fraunhofer-IPA/TEG, Germany*. In simultaneous engineering, consideration for assembly issues is important in the early stages of product development. QFD was used to identify, substantiate, and rank internal customer wants concerning the assembly process. QFD was also used to identify possible target conflicts with quality features. This paper shows how designers of a leading Chinese telecommunication systems company use QFD to efficiently assess the as-assembly design in the design process.

Technical Services 2001

Applying Quality Function Deployment to Align Customer Needs to A Technical Service *by Ian Ferguson, Ian Ferguson Associates, U.K.* A technical service organization often fails to understand major wants and needs of its customers. Sometimes the customer is not used to expressing the needs in a readily perceivable way. Using examples of how customers typically describe their situations, ways to interpret these statements, keys to assigning target values that measure benefit to both parties, and most important of all, what a technical service organization should be doing, are shown to be vital to consumer care and a profitable business.

Defense and Government 2001

Future Combat System Concept Development: Integrating Service and Product Requirements in QFD *by Kirk Kirkpatrick, Lockheed Martin Missiles and Fire Control; Maj. Shel Jones, US Army; Glenn Mazur, Japan Business Consultants, Ltd.* The US Army must consider the requirements of many new fighting scenarios in order to build adequate com-bat systems. QFD is used to better understand and prioritize mission requirements, translate them into system requirements, and then select the most promising technologies for further design and development. Lockheed Martin, a major weapon systems supplier has collaboratively guided them in this effort.

QFD within a Command & Control Environment by *Peter Kimber, Perspective Solutions, Inc., Sweden*. The rapidly changing political-military situation in NATO's area of interest and adjacent regions creates a wide variety of risks to be considered across the full spectrum of military operations in peace, crisis and armed conflict. The multi-directional and multi-faceted nature of the resultant risks requires a flexible planning process with a high degree of responsiveness for the command and control coalition operations. This case study presents the essential role QFD plays in NATO's Guidelines of Operational Planning and Command & Control process.

QFD and The Office of Homeland Security *by Glenn H. Mazur, QFD Institute, USA.* he September 11, 2001 attack on the World Trade Center and the Pentagon and the passenger-led crash in Pennsylvania to avert an event worse catastrophe have led the President of the United States to form a new Office of Homeland Security. While QFD is not new to the US government, its use has mostly been within the command structure of a single entity, rather than across the very independent agencies of the Executive Branch or the Constitutionally independent Legislative and Judicial branches. This paper is a "call to arms" to the many QFD specialists within the government to use their talents to support the President's initiative to develop and implement effective homeland security activities.

QFD as Business Strategy 2001

Keynote address: Roles of Executives in QFD *by Mr. David Harbourne, President, Fusion UV Systems, Inc.* At this world's premier supplier of UV curing systems and services, QFD is positioned as a business strategy necessary to stay ahead of the rapidly changing business environment. Mr. Harbourne talks about the role of the executive as change agent in implementing QFD and the need for the executives to take risk and lead.

BEST Deployment: Desperately Seeking an Integrative Solution for Critical Times *by Dr. Rick L. Edgeman, Robert H. Smith School of Business University of Maryland; Douglas A. Hensler, College of Engineering & Applied Sciences, University of Colorado - Boulder; Glenn Mazur, Executive Director, QFD Institute.* This paper examines environmental, economic, social, and technical sustainability as a model for future business excellence. It tries to link best business practices as defined by EFQM, Baldrige, and even Deming to the future of humanity. QFD can light the path for both sustainability and customer satisfaction.

QFD in General Industry 2001

Special Lecture: Customer Segmentation and Identification of Market Research Factors for QFD *by Greg Watson, Chairman, American Society for Quality.* High tech products earn the bulk of their profits from the mainstream purchasers whose needs differ from those of the initial purchasers. This paper will use a new criteria - willingness to purchase - to segment customers, and links this to breakeven time, and a new dynamic interpretation of Kano's model. A case study of a computer switching system will be used to illustrate.

Customer Voice Boards *by Frank Zeihsel, Ph.D., founder of enbiz gmbh, (Germany).* The way customers communicate with business has changed dramatically in recent years. Gone are the days when the sales manager was the sole communication point. Today customer contacts occur at all levels and functions of an organization. This paper presents Customer Voice Boards, a systematic approach that connects the principles of systematic knowledge management with tools of computer supported cooperative work (CSCW). Knowledge management adds to the concept of Customer Voice Boards single processes of handling knowledge in the enterprise as well as the frame conditions needed for a successful implementation of these processes.

Measurement Dimensions within the Kano Model of Customer Satisfaction *by Robert A. Spencer, Bergen Brunswig Corporation, California.* In this ongoing research, the Kano model is used to further explore the relationship between customer perceptions about what they would receive and the satisfaction they actually get from the product or service. New findings concerning the weight of customers' expected requirements, how they affect purchasing decisions, what roles they play in customer defections and long-term customer retention and other issues will be re-ported.

Flash QFD! - An Interactive QFD Tutorial *by A. J. Lowe, Ph.D., University of Sheffield (UK) and R.A. Hunt, Ph.D., Graduate School of Management, Macquarie University (Australia).* Non-practitioners of QFD often perceive it to be a complex and difficult to implement method. This paper describes the development and testing of an interactive, Internet-based QFD tutorial, which was developed using Macromedia's Flash software and can be run on any Internet browser using free downloadable software.