Summary of Value Projects:

1
IDEA ANALYSIS

2
MANAGEMENT PRESENTATIONS

3
SIX TOP-VALUE PROJECTS

1. Idea Analysis

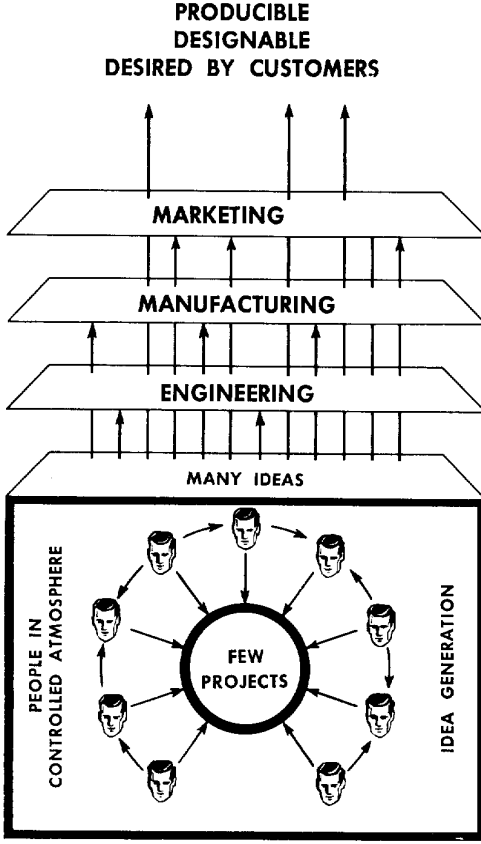
What kind of ideas were generated?

Idea analysis revealed three categories:

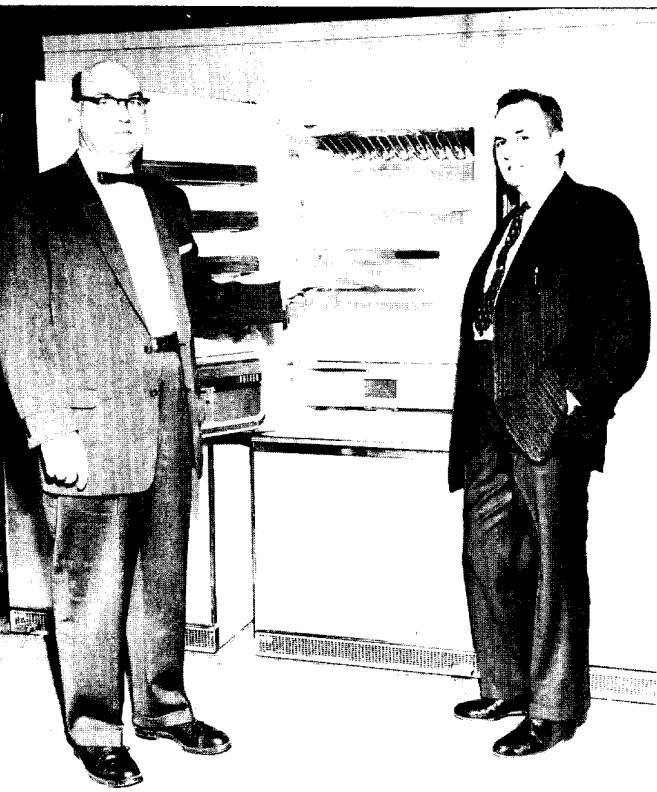
1. NEW IDEAS
2. IDEAS DESIGN ENGINEERS HAD THOUGHT OF PREVIOUSLY
3. PARTIALLY NEW IDEAS (IDEAS NOT YET IN PRODUCTION USED AS FOUNDATION FOR NEW THINKING).

Applied Value Techniques Help Produce A Better Product At Lower Cost

Many people, working in a controlled value atmosphere, devoting concentrated effort for a short time, on a few projects, generate many value ideas. From these many ideas come a few possibilities which pass the scrutiny of the engineering, manufacturing and marketing functions. These innovations result in a better quality product at a lower manufacturing cost.



VALUE ANALYSIS TECHNIQUES



2. Management Presentations

Ned Miles, Manager Production Engineering (R) and Les Pruehs, Value Engineer (L) for the department conducted final presentations to Department Superintendents, Section Managers, and General Managers. One man from each project table presented in the small auditorium from a revolving stage — allowing 24 presentations in 87 minutes.

3. Six Top-Value Projects

The six projects listed here were selected as top-value on the basis that they are all original creations, all feasible for production. These six ideas are all actively in design and tooling stages.

KEN THOMPSON—Production Engineer

GARRY THOMAS—General Foreman

SIX TOP-VALUE PROJECTS

These six projects were selected as the top-value ideas which resulted from the Household Refrigerator Department Million-Dollar-Value Workshop

Ken Thompson—Production Engineer
Started with Company in 1956.
MTP Graduate — M. E. Engr. Grad. West Point

Project—BK-11 Unit Mounting.
Redesigned fan mount.
Savings $7,500 annually.

Garry Thomas—General Foreman
Started with Company in 1930.
Apprentice graduate — G. E. Tech. Night School

Project—BK-11 Evaporator Mounting
Re-designed mounting to use 12 parts in place of 24. Savings $45,000 annually.

Tom Gilbert—Planner
Started as assembly worker in 1954.
Advanced to planning in 1956.

Project—BK-11 Freezer Door.
Changed insulation to do same job.
Savings — $5393 annually.

Art Carew—Design Engineer
Started 1956.
Graduate Chemical Engineer—Purdue University.

Project—Slider Assembly on Swing-Out Shelves.
Savings—$121,000 annually.

Wally Lepkowski—Foreman
Started as assembly worker in 1948.
Advanced to foreman in 1952.

Project—Refrigerator Door Stop.
Savings—$43,000 annually plus improving quality and safety.

John Nelson—Foreman
MTP Graduate, Started 1953.
Mechanical Engineer — Purdue University.

Project—Vegetable Bin Mounting.
Replaced coil spring and plunger with leaf spring. Savings $20,000 annually.

GENERAL ELECTRIC

TOM GILBERT—Planner

ART CAREW—
Design Engineer

WALLY LEPKOWSKI —
Foreman

JOHN NELSON—Foreman

FOCUSING VALUE ANALYSIS ON DEPARTMENT PROBLEMS TO IMPROVE VALUE...

This Value Analysis Workshop was the most effective value program we have conducted to date. The immediate results were very impressive. The foremen were particularly enthusiastic about the opportunity for applying the new knowledge gained in their own operations. The team approach of key manufacturing and engineering people resulted in improved relations which provided impetus to our continuing programs for quality and cost leadership.

W M Timmerman

W. M. Timmerman, General Manager, Household Refrigerator Dept.

Household Refrigerator Department Conducts Million-Dollar-Value Workshop

Here's What Happened:

IDENTIFIED UNNECESSARY COSTS

$2.0 million after tooling. Conservatively, we feel that a net of $2 million will get into production during 1960.

TRAINED OUR PEOPLE

Product leadership consists of two parts: performance leadership and cost leadership. The 76 people introduced to basic Value Analysis techniques will apply their efforts beyond this workshop to help us achieve the second part of this product leadership. This leadership will be decisive in our holding number 1 competitive rank.

UNLOCKED IDEAS

Demonstrated the fact that everyone has some good ideas which can be unlocked to serve profitably the objectives of the business. *New ideas* amounted to $1,360,000. Half of these should be put into production during 1960.

IMPROVED THE PRODUCT

A functional study of three troublesome assemblies and processes produced new ideas which will eliminate the quality problems and produce the following savings:

Project 1	$17,000.
2	20,000.
3	43,000.
Total savings	$80,000.

GENERAL ELECTRIC

How Value Workshop Was Organized at Household Refrigerator

Jim Knight, Manager—Engineering, with Ned Miles, Manager—Production Engineering, answer questions about organization.

Q. What new approaches were most favorable to your successful workshop?

A. (1) Due to the steel strike, most of the men attending could concentrate full effort to the workshop.
(2) All projects were obtained from the Design Engineer who wanted functional and creative studies made. He would welcome improvements to his design.

Q. What kinds of people did you pick?

A. 34 foremen, 13 planners, 10 engineers, 5 wage rate analysts, 4 general foremen, 2 advance mfg., 2 planning supervisors, 1 buyer, 1 cost reduction specialist, 1 inspection foreman, 1 service parts specialist, 1 tool specialist. TOTAL: 76 PEOPLE.

Q. How do you explain all these good ideas coming from people who are not trained designers?

A. Primarily by orienting their thoughts to the functions of the part — then the team stimulates each other's thinking process. Ideas are grown in this way.

Q. Is this a reflection that the design was poor on these parts?

A. No! A basic law of nature states that the ultimate truth is never attained. It is approached more closely as more knowledge and new environments are applied. So, also, no design should be assumed perfect—different people with different approaches and knowledge may always be able to bring new ideas and improvements to the design.

Q. What types of projects were selected?

A. (1) unlimited (2) limited mainly to present design—minor design changes and all process changes allowed (3) more functional design needed from quality viewpoint (4) functional evaluation of existing ideas for new designs desired. TOTAL: 24 PROJECTS.

Q. How did you organize the projects?

A. Three attendees were carefully assigned to each project—at least one of whom regularly followed the design or manufacture of the assembly. **This assured continued interest in getting the new designs into production following the workshop period.** Each team leader was assigned to three projects (tables). Design Engineers responsible for the various projects worked ½ to 1 hour daily in the workshop as a project team member.

Q. How did you teach Value Analysis?

A. We confined our teaching to basic and minimum Value Analysis Techniques. We used our own Value component, Value Service personnel, Syracuse University and Value Analysis people from various operating departments. Outside instructors give the necessary continuous stimulation and motivation to the attendees—**a very important factor.** Three weeks from 8:15 to 11:30, with instruction during the first hour and project work following, gave a well-rounded Value workshop.

Q. What facilities were needed?

A. We provided a private area (by screening off part of the cafeteria) sound system, low stage, tables for vendors' displays, Thermofax duplicating equipment, paper work system for vendor contacts, quotes, value proposals, sketches and project documentation books (to be used after the workshop in carrying projects into production).

Q. What did all this cost?

A. About $2500 out of pocket.

Q. Were you short on ideas for cost reduction projects at the outset?

A. No. We had about 230 active projects for the refrigeration machine. Some of the new ideas from the Workshop simply add to that list and will wait for design or planning time. Others, however, will go into production quickly. We need a large bank of good ideas —particularly those well-developed ideas which are nearly ready for production.

Q. Now that you've added so many ideas, what are your plans for getting them into production?

A. We will keep all projects under scrutiny by a permanent review team and periodic reports on the exact status of all projects will keep the department well informed. Providing an organized approach to carrying value proposals from project stage through various stages of engineering, manufacturing and production is essential.

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GENERAL ELECTRIC

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