ITW’s Decentralized Structure: How Does It Work?

Tom Hansen

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Today’s Topics

- Benefits of ITW’s Decentralized Model
- ITW’s Decentralized Approach
  - How the management structure supports that model
- ITW’s Toolbox… 80/20 is the core … the glue that holds the company together
- Q & A
Benefits of ITW’s Decentralized Model

- It allows each business to be close to its customers and to quickly respond to changing markets
- This very focused business environment supports innovation for specific markets and customers
- Business unit management is entrepreneurial with a high level of business ownership
- Customers view divisional management as very approachable and market/industry experts
Benefits of ITW’s Decentralized Model

- While we act small, we also possess the best attributes of a large company:
  - Financial stability
  - Strategic sourcing
  - Local focus / global reach
  - Geographic and end market diversification
  - Advanced technology resources (ITW Tech Center)
  - Numerous career opportunities
  - Cultural identity
ITW’s Decentralized Approach: Our History

- In the early 1920s, Henry Ford came to ITW looking for a solution to an engine issue
- ITW invented the lock washer with teeth to hold the screw in place
- ITW created the Shakeproof division to focus on that customer and on that product
- The separation of Shakeproof from ITW was the inception of ITW’s decentralized philosophy, which holds true today
ITW: 1965

- Revenue: $71 million
- 4,300 employees

13 decentralized business divisions in 6 countries
ITW: 1995

- Revenue: $4.1 billion
- 21,000 employees

Chairman

President and CEO

EVP

Emerging Group President Role

300 businesses serving customers in 34 countries
ITW: Today

- Revenue: $14.1 billion
- 55,000 employees

Vice Chairman

CEO

EVP

EVP

EVP

EVP

EVP

EVP

EVP

EVP

EVP

EVP

52 Group Presidents

750 businesses serving customers in 49 countries
ITW: Possible Future Structure

- CEO
- COO
- EVP
- EVP
- EVP
- EVP
- EVP
- EVP
- EVP
- EVP
- EVP
- EVP
- EVP

Group Presidents

1000+ businesses serving customers in 49+ countries
ITW’s Decentralized Approach:
Summary

- ITW has been a decentralized organization since its inception in the early 1900s and this model has served us well.
- ITW’s decentralized operating philosophy allows business unit managers to focus and stay close to their customers.
- As ITW continues to grow, the decentralized model remains intact.
- The management structure is modified with more EVP’s and Group Presidents to accommodate new businesses.
ITW’s Toolbox -
The glue that holds the company together

- What is the ITW Toolbox?
  - A set of best practice business processes developed over the years by ITW employees utilizing the core principles of 80/20
  - Like our business, the Toolbox continues to grow as its users utilize the tools in innovative ways and share their experiences with others
  - The Toolbox also serves ITW as the primary vehicle in communicating its core culture across a multitude of diverse business units and geographies
ITW’s Toolbox - The glue that holds the company together

- ITW Toolbox today:
- 80/20 – the principal analysis tool
- Other tools include:
  - Product Line Simplification (PLS)
  - In-lining
  - Market Rate of Demand (MRD)
  - Understand, Simplify, act (USa)
  - Market Segment Selling (MSS)
  - Continuous evaluation and application of 80/20 principles
- ITW uses all these tools to reduce business complexity and there are linkages in their application
ITW’s 80/20
The Evolution of ITW’s Tools

1983-1987: Incubation

- CEO John Nichols introduces need for ITW to be a “low cost” manufacturer
- Executive Vice President W. James Farrell reads Zero Inventories and applies concepts at Shakeproof. Runs high volume screws with heading, washing & rolling all running together without WIP inventory (in-lining)
- Quickly learned that “in-lining” does not work well with low volume and began looking at differences between high & low volume (80/20)
- Developed ways to run similar products on an “in-line,” but needed to separate low volume to understand cost and to possibly eliminate or create low volume cells (PLS)
ITW’s 80/20
The Evolution of ITW’s Tools

1988-2000: Maturation

• 1988: ITW realized that the 80/20 process works with all functions of business and ITW begins proliferating the concepts more systematically to all business units and new acquisitions
• 1988: Identified that the 80/20 approach could be applied to administrative functions
• 1990’s (early): Developed MRD (Market Rate of Demand) at the construction group to rein in inventory and improve customer service. Traditional MRP had failed to get results
• 1990’s (mid): USa developed as an additional tool to help analyze new business system requirements and process analysis
• 2000: Market Segmentation Selling—practiced by some businesses and shows good results … practice spreads and formalized tool in development…
ITW’s Toolbox Application
80/20…Principal Analysis Tool

- 80/20 – A process for improving performance and reducing complexity
  - Vilfredo Pareto, a late 1800s Italian economist, developed the “Pareto Principle” – he studied wealth distribution and found 80% of the wealth was owned by 20% of the people
  - We use the 80/20 Principle to analyze data we collect in our business. This allows us to identify the 20% of activities creating 80% of the results and ask related tough questions.
  - We use it to study:
    - Products - Product cost
    - Customers - Sales force
    - Suppliers - Geographic distribution
    - Inventory - Overhead costs
ITW’s Toolbox Application
Product Line Simplification

- The process of properly defining and streamlining your product offering
- Taking into consideration:
  - Engineering and manufacturing capabilities
  - Marketing strategies
  - Product fit and payoff for the business
  - Needs of target customers
ITW’s Toolbox Application
Product Line Simplification

- ITW Permatex (Solon, OH)
- Purchased in 2005
- Produced 222 silicone product SKUs
- Initiated PLS in 2005/2006

- Eliminated 41 SKUs
- Outsourced another 32 SKUs
- Overall SKUs reduced by 32%
- Revenues increased 5%
- Variable margin increased 10%
- Line efficiency improved 17%
- Units manufactured grew by 4%
- Fill and packaging costs declined 16%
ITW’s Toolbox Application
Product Line Simplification

- ITW Foils/Foilmark
  - Purchased Foilmark in 2001 and combined it with ITW Foils
  - Impact of our PLS and 80/20 activities from 2002-2007:
    - Revenue: 4% CAGR
    - Operating Profit: +12x
    - Overhead %: -25%
    - MOH: 2.3 (-65%)
    - SCRAP: -40%
    - On Time Delivery: 85% → 93%
    - Products: 1009 → 330 (-63%)
**ITW’s Toolbox Application**

**In-lining**

- Simple process, generally associated with manufacturing, where production equipment or assembly stations are arranged to improve flow and minimize process time from raw material to finished goods

- In-lining produces best results after PLS
Why in-lining at ITW Heller (Germany)?

- “Push System”
- 100% capacity utilization
- High replenishment lead times
- High WIP
- Lower service / delivery rates
- Complex manufacturing layout & process
ITW’s Toolbox Application
In-lining

- What we did at Heller:
  - We gathered data on the 80 products and the 20 products
  - We studied the product flow of each group and the machine set up times
  - We rearranged the equipment for the 80 products and set up separate 20 product cells
  - We implemented MRD & KANBAN reordering processes
ITW’s Toolbox Application
In-lining

- ITW Heller results:
  - Inventory reduced 32%
  - Setup time reduced 50%
  - Lead times cut in half
  - Capacity utilization decreased to 80%
  - Service Rate (IFOT) improved to +95%
**Old Production Method**
- Long lead times (6 to 8 weeks)
- Large inventory (3 MOH) required
- Paint, sheet metal, welding in house

**In-Lining Production Method**
- Faster delivery time from order (1 week)
- Reduced inventory (1 MOH)
- Outsourced “non-core” operations
- Reduced labor and support (direct labor -43%, overhead -34%)

*ITW’s Toolbox Application In-lining* Signode Product Assembly
ITW’s Toolbox Application

Market Rate of Demand

- Market Rate of Demand (MRD)
- Customer demand drives pull system supply
  - Replenishes specific inventory targets at the rate of customer demand
  - Produce only what you sell
  - Target inventory less actual = MRD
  - Must identify and manage capacities internally as well as outsourced functions
ITW’s Toolbox Application
Market Rate of Demand

- MRD was adopted by our construction distribution center in the Netherlands
- From 2003 to 2007, SKUs on MRD went from 26% to 85%
- Administrative costs were reduced from 3% to 1.5% of sales
- Increased customer service and reduced inventory MOH
**ITW’s Toolbox Application USa**

**Understand**    **Simplify**    **act**

The “80”          The “20”

- USa is ITW’s tool utilized to simplify a business process
  - **U** (Understand): Uncover/find/locate/identify the non-value-added steps in a process, then assign cost
  - **S** (Simplify): Envision or model the re-engineered, simplified business process
  - **a** (act): Plan and implement the new business process change (roll out)
- USa projects have been used to reduce complexity, simplify how we pay vendors, close the books, reduce warranty claims costs, reduce inventory…
It isn’t pretty!

ITW’s Toolbox Application
USa
ITW’s Toolbox Application
USa

- ITW’s Military Aircraft Ground Support Equipment Group needed to improve their engineering change notice (ECN) process:
  - Over 80 days to release an ECN
  - Over 700 open ECN’s, adding about 100/month
  - Causing significant inefficiencies & waste in purchasing and production
  - Consuming their engineering resources
ITW’s Toolbox Application

**USa**

- The USa results:
  - Average closure rate improved from 122 days to 27 days… an 80% improvement (achieved in 1 year)
  - Reduced ECN sustainment engineering from 12 to 4 people over $1 mm in labor costs redirected to new product innovation, design and market development
  - 50% reduction in scrap as a result of less obsolescence at the unit
ITW’s Toolbox Application

Market Segment Selling

- A series of activities that are focused on delivering increased sales and profitable market share growth

- Market Segment Selling is a process for increasing sales and market share by:
  - Gathering data (end-user, competitive, government, industry, et al) to understand the end-market needs and values
  - Using the data to create solid marketing strategies, sales tactics, and action plans
  - Effectively executing the plans
  - Measuring results
ITW’s Toolbox Application
Market Segment Selling

Hobart Food Equipment

- Organic growth was challenged due to:
  - Field sales team not effectively targeting customer segments
  - Misunderstanding of costs related to different segments
  - Insufficient customer perspective included in business planning process
Key Segmentation Findings:

- Two definable, concentrated segments were identified that warranted a separate sales force due to distinctly different buying practices and coverage needs:
  - Multi-unit chains and military/government
  - The balance of the territory field sales and marketing efforts:
    - Concentrated on 8 of 37 other institutional segments (the “80”)
      - Sales personnel focusing on architects/consultants to get specified (pull sale)
      - Less direct sales support of dealers; more marketing support, dealer sales force incentives, higher dealer incentives
ITW’s Toolbox Application
Market Segment Selling

- Segmentation Results:
  - Net headcount reduction
  - Improved “80” segment penetration and customer involvement
    - Improved prioritization of product development and/or acquisition projects
  - Realized benefits of revs/income tracking of “80” segments by product line
    - More accurate assessment of and timely response to incremental chain opportunities
  - Improved prioritization and deployment of resources across the organization
  - First year revenue was up 14% and income up 17%
ITW’s Toolbox Application
80/20...An Ongoing Analysis Tool

- Acquired Miller Electric (welding equipment) in 1993...initial heavy integration work completed by the end of 1996
- Over the next five years, Miller Electric becomes an 80/20 “showcase” for ITW...one of our best
ITW’s Toolbox Application
80/20...An Ongoing Analysis Tool

- Launched “80/20 Reloaded” initiative at Miller in 2006:
  - “Start from scratch” reapplication of 80/20 tool box elements at a number of Miller manufacturing plants
    - Production levels had grown 3x+ from the mid 90’s . . . with no significant change in manufacturing footprint
    - Included people from outside the specific businesses involved who had strong 80/20 experience to add fresh/objective perspective to the analysis and action planning
  - Comprehensive reapplication of 80/20, PLS, Segmentation, and In-Lining ITW Tool Box elements resulted in plant level manufacturing productivity improvements of 13%-24%
We start with our introductory e-learning:

- Launched in 2002
- Transmits ITW’s way of thinking (culture) efficiently across our employee base
- Provides base learning in our “Best Practices”
- We have e-learning courses for 80/20, PLS, MRD, in-lining & USa
- E-learning is available in English, German, Italian, Spanish, French, Mandarin & Japanese
- Currently we have 24,000 active users
The “heavy lifting” education comes via our workshops:

- Performed on-site when possible
- Facilitated by people who have gone through the process
- We utilize real business data
- These sessions are carried out by people responsible for results


**ITW’s Decentralized Structure**

### Conclusion

- Our organization is scalable to support growth
- Our Toolbox is rich with “best practices”
- We continue to expand the Toolbox with new proven tools
- IT WORKS!
Q & A