

TRICKS, TRAPS, SNARES,  
AND DECEPTIONS

# On the Road to Simplicity

By Scott Sedam, Contributing Editor



Last month in my column, “Consequences of Complexity” (*Professional Builder*, October 2015) we examined both micro and macro examples of how complexity in product, process, and plans results in lost profit, unhappy customers, and frustrated suppliers, trades, and employees. This is not to suggest that everyone build completely simple homes—though there is a significant market for that and someone has to fill it. It’s entirely possible to have messy, complex, and inefficient processes while going about the business of building smaller, unassuming homes, just as it’s possible to bring order and simplicity to the most expensive homes with custom options. This is about simplifying wherever possible in the process of building your chosen product, from low-price starter homes to high-end custom.

And remember, simplification is never about merely stripping out features or dumbing down the product. Contrary to popular belief, simplification is a way of thinking, designing, and operating that can improve product along with profits. As appealing as simplification is, we must also heed the warnings of those who have gone before, like this one, by H.L. Mencken: For every complex problem there is a solution that is clear, simple, and wrong.

## Lessons From Detroit

Back in the ’80s when Detroit carmakers were brutally hammered by the Japanese with their simple, reliable vehicles, U.S. automakers made genuine efforts at simplicity by standardizing car platforms, including drivetrains, instrumentation, interiors, etc. General Motors saved hundreds of millions of dollars in production costs, and since that was the carmaker’s most critical metric, at first GM appeared to be the hero. But the engineers went too far and forgot that in sales, perceived value is everything. GM still offered Chevrolet at the lowest price; Pontiac, Oldsmobile, and Buick at the mid-level; and Cadillac at the top. Trouble was, customers quickly saw that for the GM J-platform cars, to cite just one example, there was little to no difference. The Chevy Cavalier, Pontiac Sunbird, Olds Firenza, Buick Skyhawk, and Cadillac Cimarron

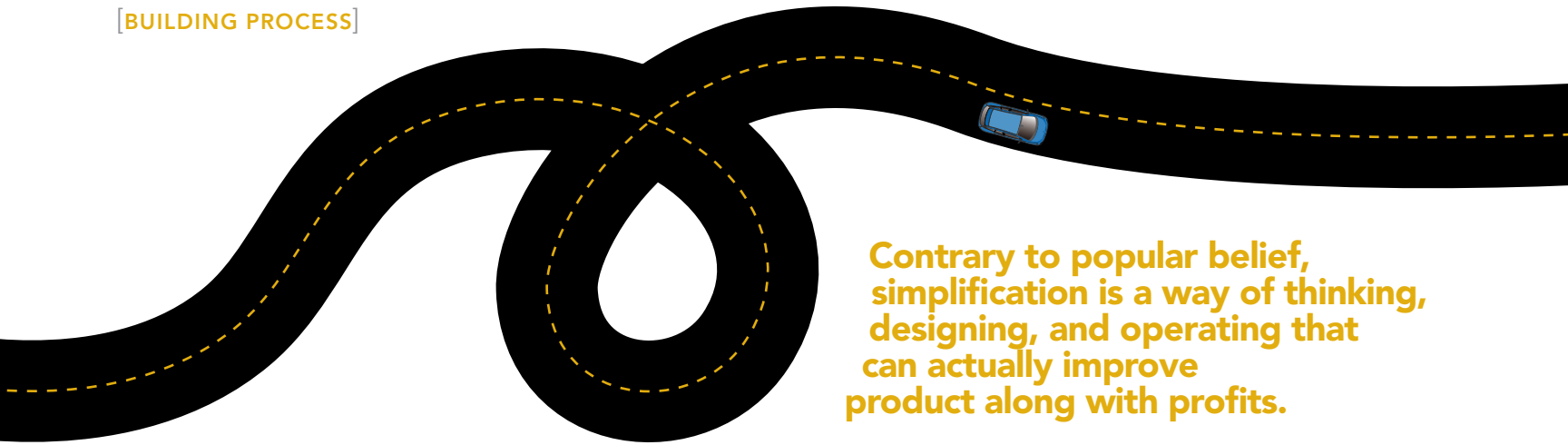
were essentially the same vehicle, as style and substance took a back seat to simplicity. They were all built alongside one another in the same factory, and it got so bad that customers reported opening the hood of their new Buick and seeing an engine with a big Chevy bow tie emblem on the air cleaner.

It was during these times that the first death rattles were heard from Pontiac and Oldsmobile. Perhaps worst of all though were the Chrysler K-cars. Those of you over 40 will recall the ad barrage with Lee Iacocca proclaiming, “Buy a car, get a check!” Customers soon realized that the Chrysler, Plymouth, and Dodge K-cars were identical save for the badge on the hood, hubcaps, and a dash appliqué, and eventually the Plymouth brand succumbed.

To be sure, Ford had similar issues that likewise killed the Mercury brand, but compare that era with the Ford C-class world car platform of today. Ford builds a wide variety of vehicles including the Escape, C-Max, Transit Connect, and Lincoln MKC, all on the same platform. Yet these vehicles are so different in looks and purpose that no customer would ever suspect the common underpinnings unless they looked it up (as I did) on Wikipedia.

Ford found simplicity, saves billions, and delights its customers while making a load of profit. What can we learn from this model? I’ve seen the concept applied to “plug ‘n’ play” kitchens and baths where all options from basic to designer level fit together without waste in process, labor, or materials. A large national builder found it had more than 150 SKUs of kitchen ranges from five different companies, resulting in innumerable locations for gas and electrical hookups. The result was expensive, messy, and unattractive extensions to make the ranges fit, typically costing \$35 to \$50 per house. Big deal? The builder got everyone together and knocked the SKUs down to seven from a single vendor, all with hookups in the same spot. It got a lower up-front price; the locations found their way to the plans—earning the love of plumbers and electricians; the extensions went away; and now there’s one thing less to disappoint the customers. Simple, isn’t it?

Thirty-five years ago Bill Pulte built 75 homes in one suburban Detroit location, all with the same foundation and floor plan, yet he did so much with elevations and options that the customers never knew how similar their homes were until



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they began visiting one another as neighbors. I don't suggest you copy that exact approach, but do as Bill Pulte did: Learn from it. As Bill said, with genuine amazement, during the training workshops he led for new Pulte recruits in the '90s, "I just wanted to see if I could do it!"

So he did, and although he never did it to that degree again, the insights and lessons were well-applied throughout the company. When I worked for Pulte, it was almost beaten into us that, given a choice, simpler is almost always better.

## Plan vs. Plan

The benefits of simplicity are evident when comparing two identical plans, one built as a spec (aka "market") home, the other as a to-be-built contract sale. Let's consider a builder who has a large design center and will unofficially do custom options to "make the sale." Discounting the frequent battles and changes that occur among staff members when deciding how to build the spec home, it should be 100 percent nailed down—all options, specifications, and colors established—before construction begins. Let's also assume all selections in the spec home are standard—because smart builders know that adding one-off custom options to a spec is asking for trouble.

If things are done right, the cost is already negotiated and each supplier/trade knows what to order, when it's needed, and how to install it. Staying on schedule is a breeze. Life is good, at least as far as operations go, and it stays good as long as the spec home sells quickly. The goal is to sell by the date of final, but truth is, this one goes so smoothly, so quickly, that even carrying it in inventory for a month or two will get you more profit than the next house considered below if you measure all the costs associated with each. But be careful. I worked with one company president whose mantra was, "The greatest sin is the unclosed final," meaning the house is 100 percent ready with no buyer. He had a point; too many of those can eat you alive.

The to-be-built contract home where the customer makes all the selections can, in theory, be every bit as orderly and efficient as the spec home, and although I've met a few builders who pull this off with consistency, they are rare. Almost

everyone has cut-off dates that start firm but migrate toward floppy as the customer pushes back. Most production builders officially say they allow no custom or structural changes, but just ask their field superintendents, suppliers, or trades and you'll hear differently. What they'll describe to you is a litany of custom changes or standard selections changed after cut-off dates, resulting in errors, late orders, reorders, and rework requiring heroic efforts to stay on schedule.

How do you know if you're losing the battle for simplicity in product and process? There are many indicators, but the one that tells you the most is how much work is done under what's commonly called a VPO—variance purchase order. You may call it a field purchase order, exception purchase order, change order, or maybe it's just an additional invoice for something that wasn't in the original house-start package. But each one represents a failure of some kind. In every case, the result is more time, more steps, more labor, more complexity, and less profit.

## Death by VPO

VPOs (or your equivalent) absolutely must be tracked, but it requires some thought. I strongly recommend counting VPO dollar value and creating a ratio of VPO to total house cost. Yet, if you count dollars alone, you may miss the magnitude of the number of changes. What does more damage: a single VPO for \$1,000 or 10 VPOs averaging \$100 each? Same dollars, but the second case generates greater complexity and thus more loss in collateral damage. But if you count number of VPOs alone, the innumerable methods can produce confusion, resulting in anything from honest mistakes to gamesmanship or even cheating.

You may recall the example of a missing service door I cited some issues back, where more than 10 suppliers and trades were involved in the fix. That should take a separate VPO for each one, right? On the other hand, it's just one incident, so perhaps, for tracking purposes, we should combine them? I've seen that done, especially for touch-up work in paint, drywall, etc., but the argument is weak. Similar questions arise for late change orders that require multiple suppliers and trades. Let's say the customer at the last minute wants that humidifier



**"Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius and a lot of courage to move in the opposite direction."**

**—Ernst F. Schumacher**

option, and to keep the peace you decide to add it ... a week prior to close. One VPO? I don't think so. You have the HVAC guys to cut the duct and install the unit, the plumber to run the water supply, and the electrician to hook up the power. Keep them separate and count them that way for tracking, along with the costs, to give you the truest picture of the magnitude of the mess you made. One last caveat: This is not necessarily the same as tracking variance. The problem there is that an either high or low estimation of the original product and labor cost can make a variance number appear artificially good or bad. The same thing can happen tracking VPOs, but looking at the physical data of each one helps ferret that out, whereas mere percentage variance obscures the real story.

In the quest for simplicity, your best bet is to first identify every source of complexity in your products and processes. VPOs are just one of a long list of contributors, and the reality is VPOs are much more symptom than cause and occur pretty far downstream from the source. They're produced by complexity and "things gone wrong" upstream. After nearly a decade running more than 160 week-long Lean events, we can pinpoint the biggest sources of complexity in home building. Here are some brief descriptions.

## **SIMPLICITY LOST: The Empirical List**

- 1. "Moth to the flame" business strategy**
- 2. Changes in land use/plot plan**
- 3. Changes in product, models, specifications**
- 4. Creeping elegance**
- 5. Inadequacies in standard plans, options, colors, selections**
- 6. Incomplete plans without working drawings, mechanicals, or sufficient detail**
- 7. Insufficient training for salespeople and design-center staff**
- 8. Incomplete house-bid packages to suppliers and trades**
- 9. Incomplete base contracts with detailed scopes of work**
- 10. Options selections and colors not 100 percent priced and agreed to up-front**
- 11. Accepting custom and/or structural options without capacity in systems and processes**

- 12. Incomplete house-start packages for suppliers, trades, and field supervisors**
- 13. No respect for cut-off dates for options and selections**
- 14. Percentage of house cost done under VPO too high**
- 15. Problem relationships with municipalities that delay permits, inspections, approvals**
- 17. High turnover in suppliers and trades**
- 18. High turnover and inadequate training in both office and field staff**
- 19. Indecisive senior management**
- 20. Lack of comprehensive, proactive customer management from Day 1 through warranty**

That's 20 tricks, traps, snares, and deceptions on your road to simplicity, which can seem daunting. But if your goal is to be among the very best builders, you have no choice. The out-of-control complexity emanating from shortfalls in each of the above is tantamount to a flood overwhelming the storm sewers, rivers, and dams meant to control it. Remember that working downstream is like plugging holes in the dike, whereas working upstream eliminates the source of the floodwater. Careful though, the water—your profit—that's spilling onto the ground must be remedied first, so channel your "Little Dutch Boy" and get those holes plugged, then fight your way upstream to the source. Do this and you'll find that the wellspring of complexity is primarily generated by the choices and decisions of senior management. They're ultimately responsible for the loss of simplicity in strategy and systems that causes so much extra work and lost margin. Yet, since senior management began it, so can senior management end it. But each day you wait makes it harder. Let's get started. **PB**

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