

Lessons from *The Great Recession* for Operations Management

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The Great Recession turned businesses upside down in an economic tsunami from 2007 to 2009, and even today, many companies still face uncertain horizons well out into the future. In that spirit, this essay highlights eight important lessons from *The Great Recession*, which promise to not only reshape the management of operations, but also our research for years to come.

1. *Generating "free" cash is perhaps the supply chain's most important activity.* *The Great Recession* taught few lessons faster and harder than this when banks stopped lending and credit evaporated in 2008. While taxpayers of course rescued Chrysler and GM, countless other cash-starved companies across supply chains went bankrupt from retailers like Circuit City to manufacturers and suppliers such as Waterford Wedgwood and Visteon. In fact, *The Great Recession* so brutally stretched most organization's finances that "cash hoarding" will likely remain one of its enduring legacies. By extension, OM stands to play a major role in helping organizations generate "free" cash since supply chains typically not only support most revenues but also incur many costs. Having said that, supply chain research has often focused more on strategies around integrating information and managing inventories and less on generating cash. Recent events in *The Great Recession*, along with growing evidence of cash flow improvements widely available across supply chains (Lanier, Wempe, and Zacharia, 2010), suggest that we need to broaden the focus of our research in this direction and lead to the first proposition.

P1: One of the most promising new areas for supply chain research is improving cash flows.

2. *It is getting harder to squeeze cost savings out of operations.* Thanks to *The Great Recession*, many operations today are now lean with comparatively little more waste to lose. Compounding this situation is the fact is that many organizations have already implemented such "traditional" cost reductions as laying off workers, outsourcing processes, divesting businesses, and forcing suppliers to slash prices. While this does not imply that future costs savings are impossible, it does mean that most organizations will have to work much harder to earn them as cost cutting reaches a point of diminishing returns. This represents opportunities and challenges for OM. On the one hand, the relevance of operations inside many organizations is now stronger than ever thanks to *The Great Recession*. Conversely, relentless cost cutting places even greater pressure on us to keep discovering new ways of doing so without inadvertently damaging an organization's competitive capabilities (Weisbrod, 2010). That is why this second proposition suggests that we have a lot of work ahead of us in helping the lean become even leaner.

P2: Cost savings are reaching a point of diminishing returns, and increasingly many traditional ways of reducing costs may no longer work.

3. *Supply chains break at their weakest link.* Only the luckiest supply chains survived *The Great Recession* without major problems. As downstream customers stopped buying, retailers in turn reduced orders with their suppliers, and so on right back up supply chains. Soon many companies found themselves in deep financial trouble and if they dared ask their upstream suppliers or downstream customers for help with payments or prices, then they risked being dropped as future partners. How do you identify weak links in the supply chain? Similarly, how do you know when (and how) to rescue faltering supply chain partners? Such issues baffled everyone from supply chain professionals to credit rating organizations, and academics likewise had few answers ready for one of *The Great Recession's* biggest problems (Natarajathinam, Capar, and Narayanan, 2009). As with other areas including Finance, Marketing, and Strategy, most OM research has been around times of growth and the "boom" of the business cycle, with little consideration ever given to the "bust" periods of economic survival. Speaking for OM, we should have answers ready for managers in both good times and bad. Before the next recession occurs, hopefully we will have addressed the following proposition and research question.

P3: Every supply chain has weak links. How do you identify and rescue them?

4. *Process improvement stubbornly refuses to become a widespread business skill.* *The Great Recession* clearly focused tremendous managerial attention on managing and improving processes, and as a result, more organizations than ever are now comfortable with continuous process improvement. Unfortunately, even *The Great Recession* failed to convert most managers and organizations into process zealots, and now as in the past, the majority still only half-heartedly and inconsistently improves processes (Anand, Ward, and Tatikonda, 2010). At this point, it seems like the process of improving processes is due for improvement since it is typically implemented as a highly structured program staffed by experts using mysterious (to outsiders) methods like Six Sigma (Schroeder, Linderman, Liedtke, and Choo, 2008). In the coming years, how do we evolve process improvement so that it stays effective but is more easily deployable in all kinds of contexts? In effect, evolve process improvement back towards its roots free of the gimmicks that Deming so despised. Since processes are at the core of OM as a body of knowledge it is up to us, not consultants or others, to lead this evolution of process improvement towards its next generation. When we do that, the following proposition promises to elevate OM to the very top of the most relevant and important "must have" business skills.

P4: Process improvement is clearly one of businesses' most important skills, but we need to evolve and simplify the way it is done in order to disperse it to an even wider audience.

5. *Organizations will have to get more productivity out of fewer workers and less energy.* What once seemed like a short-term jobless recovery now looks like the new norm. Indeed, workforces in many organizations were pared during *The Great Recession* with little intention of ever replacing those employees, and the reality going forward is that organizations will be looking for ways to increase productivity given reduced headcounts. Similarly, oil prices peaked in 2008, and this too portends a future of sustaining productivity given decreasing energy inputs. In the past, researchers struggled with the "productivity paradox" whereby computerization did not appear to increase outputs (Brynjolfsson and Hitt, 1996). In all likelihood, we will soon be

pulled back into productivity-related issues; only this time around the focus is going to be on increasing outputs given dwindling inputs (especially labor and energy). How many more productivity improvement techniques remain undiscovered? As one of the more practical and hands-on managerial disciplines, it is incumbent upon us to begin aggressively searching for them in our experimentation and research. While productivity-enhancing techniques ranging from just-in-time to bottleneck management are good starting points, in truth, many existing OM concepts have already been widely deployed and their benefits incorporated into operations. Thus, the fifth proposition is as much about discovering the new as it is about refining the old.

P5: Productivity improvement will increasingly be an important OM research topic.

6. *Western governments rediscovered the importance of manufacturing.* Just as one could have argued thirty years ago that government policy makers (especially in Western nations) were too focused on manufacturing, more recently much attention has been devoted to services. In the space of a few years *The Great Recession* has changed that, and while healthcare and real estate (to name a few) bogged the world's economy down, manufacturing emerged as one of the shining stars in terms of economic growth and recovery. We should take advantage of renewed governmental interest in manufacturing; not only is this likely to be where greater research funding is available, but if we want to have an impact on society and the prosperity of nations, then manufacturing seems like a worthy area for renewed scholarship. Notably MIT has already taken such a step and launched a major cross-campus initiative (including two Nobel Prize recipients) to help reinvigorate manufacturing. As MIT's President Susan Hockfield so aptly put it; "If manufacturing is old-fashioned, then we are not doing it right" (Gavin, 2010).

P6: The timing is right for renewed OM research into all aspects of manufacturing.

7. *Is product variety-based competition dying?* You may have noticed that the shelves at many retailers have less SKU variety. A punishing lesson of *The Great Recession* was that supplying customers with near limitless variety also courted financial disaster. We of course have long known that aggregated forecasts are more accurate than end-item projections, and in the face of falling consumer demand only the bravest (or foolish) of companies continued to forecast for and deliver broad product lines. Was *The Great Recession* the high-water mark for vast product variety and consumer choice? Time will tell as the global economy repairs itself and consumer confidence returns, but having said that, the way that customer demand so quickly plummeted at the start of *The Great Recession*, and then so stubbornly refused to recover, suggests that most manufacturers and retailers are not going to resume offering near limitless variety anytime soon. Marketing noticed this phenomenon before *The Great Recession* and has steadily researched it in studies like Zhang and Krishna (2007) and Liu and Cui (2010). At this point, we should also monitor this trend and be prepared to respond with our own stream of research in the near future.

P7: Businesses will increasingly reduce product variety in the coming years.

8. *Investing in operationally strong businesses is the safest bet of all.* Strong operations make the biggest profits in good times and help ensure survival in bad. We have known the first part

of that sentence to be true for decades, but the second half was only a theory up until recent events so thoroughly tested it. Now we know the entire sentence is true and organizations with the strongest operations prevail in both good times as well as bad, which is why companies like Ford, Li & Fung, Southwest Airlines, Wal-Mart, and Zara easily survived *The Great Recession* while so many others floundered in its wake. This is great news for OM, but how do we communicate this on campus as well as outside to an even broader audience? While the message itself is profoundly simple - if you want to make money in an up economy then focus on operations, and if you want to survive when business inevitably turns down, then operations should also be a cornerstone of your strategy - the challenge remains for us to sell it convincingly to the colleagues, students, and managers that we wish to influence. A message that we have often only been marginally successful at conveying to others in the past, but which now sits before us as a golden opportunity for the future. Anyone want to challenge the last proposition?

P8: An organization with strong operations beats a weak one every time in good times and bad!

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