

Materializing Strategy: The Blurry Line between Strategy Formulation and Strategy Implementation

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In order to materialize strategy – to bring it into existence both theoretically and practically – strategy makers must have an appreciation for the material through which their strategy will be implemented. In this paper, I argue that a lens that focuses on the materiality of strategy making helps scholars to understand that strategy formulation and strategy implementation are not two distinct sets of activities that occur in sequence. Instead, effective strategies can only be made if executives and other strategy makers begin to think about the kinds of technologies that will enable workers to implement their strategy. I illustrate the importance of this line of thinking through a brief case of an attempt to develop new strategy at a mid-sized US-based plumbing fixture company.

In recent years, there has been a proliferation of tools available to aid in the strategy making process. Capital market diagnostic tools, growth decomposition tools, and trend modelling tools have recently joined the ranks of traditional strategy making tools, such as balanced scorecards and growth share matrices, to help executives make the most appropriate strategy to achieve their business objectives. Although management and strategy scholars have spent several decades exploring the ways in which people use these tools (Burgelman, 2001; Mosakowski, 1997; Segev, 1987), only recently has attention shifted to the mundane but important reality that these strategy making tools are really little more than abstract frameworks that are made concrete through the use of various information and communication technologies such as manuals (Spee and Jarzabkowski, 2009), dashboards (Garengo and Biazzo, 2012) and PowerPoint slides (Kaplan, 2011). This growing interest in the technologies that support strategy making has paralleled and drawn inspiration from a larger trend in manage-

ment and organization studies which recognizes that almost all social action is mediated by the use of technologies (Leonardi and Barley, 2010; Orlikowski and Scott, 2008). In the context of strategy, a number of researchers have begun to cast strategy formulation as a process that is both social and material in nature, thus examining how strategy formulation is both enabled and constrained by those information and communication technologies through which strategy making tools are accessed and used (Jarzabkowski and Kaplan, 2014; Vaara and Whittington, 2012).

In this paper, I intend to demonstrate that scholars interested in the material underpinnings of strategy have only begun to scratch the surface of such a perspective. By moving past the mere recognition that strategizing is inherently intertwined with materiality to understanding that materiality permeates every aspect of strategy – from strategy formulation to strategy implementation – scholars and managers alike may be better able to explain, predict and improve how the activities in which they engage during

strategizing are related to the ways strategy is actually implemented within their organizations. Such a perspective supports Mintzberg and Waters' (1985) assertion that strategy formulation and strategy implementation are not two separate activities; indeed, the line between what counts as one activity versus the other becomes increasingly blurry the more we pay attention to how materiality enables and constrains the materialization of strategy.

How strategy becomes material

After spending a good deal of time working through the strategy formulation process, most executives report that they clearly understand the strategic direction in which the organization must move and, more or less, the kinds of actions that will power the move in that direction (Mintzberg, 2002). For example, a group of executives at a medium-sized US-based organization that makes plumbing products for commercial and residential applications recently gathered to remake their corporate strategy. Over a period of three months, I observed executives at this company formulating their corporate strategy. During this time, they utilized a number of the strategy tools described at the outset of this paper. The executives began to feel that their strategy making sessions were nearing completion when the team agreed to adopt what they called a 'market opener' strategy. The idea was that the company would open new product categories and set design trends for high-end bathroom and kitchen fixtures (but not mid to low tier fixtures). The tools they had used during their strategy making sessions had led them to conclude that consumers were willing to pay top dollar for 'beautiful' fixtures that elicited 'emotional reactions' and that their R&D facility had enough technical product innovations in house and their design teams had enough skills such that the company could successfully open new product categories before any competitors. The strategy formulation meetings concluded when the team officially agreed on the 'fast follower' strategy and several actions needed to support it, such as changing the company's product development process and shifting the way engineers in R&D were evaluated so as to encourage them to experiment with new product ideas based on data that were coming in from the

market research department about consumer preferences at the top of the market.

In this example, executives conceptualized strategy making as a process that ended just before implementation. In fact, as one executive commented in the final formal strategy making meeting, 'Well, now we get to turn things over to the divisions so they can start implementing on this vision'. To implement this market opener strategy, the head of the marketing division decided that she needed to have a better understanding of where consumer trends were going, so she commissioned her reports to create a 'design trend briefing book', which was an electronic database that was to contain examples of various competitor offerings and prototypes, as well as insights into consumer preferences for product functionality, style, materials and overall home and industrial living trends. The head of marketing worked with her team leads to identify what categories of data would be most useful to include in the design trend briefing book such that the book would be useful for engineers in R&D as they mocked up various prototypes to show the executive team.

The marketing team went out into the field to collect the data required by the design trend briefing book, but came back with very little. None of their existing channels could provide the data that they needed because there were few industry analysts who collected data of these types. So the head of marketing approached the CEO and asked him for a budget increase to hire more staff and to make a slight organizational change that would enable her team to organize in ways that would make it easier to produce the data they needed for the design trend briefing book. The CEO told her that the changes she requested were not possible and that she should be able to make things work with the resources she already had. Over the next six months, marketing produced two versions of the design trend briefing book, which were then shared with R&D. R&D used the data in them to create prototypes for new fixtures that were then presented for approval by the CEO and the members of the same executive team who made the market opener strategy. They uniformly hated the prototypes. The CEO proclaimed: 'There is nothing new here. We haven't done anything at all that would open a new product category. Nothing.' The CEO was mad, the executive team was mad, marketing was mad, and R&D felt shamed.

What happened? An easy explanation would be that the CEO failed to support the strategy with the appropriate resources. Although that is certainly true, a focus on the material context of strategy making and implementation reveals a more nuanced story. The executive team believed that strategy making was done once they agreed upon the market opener strategy and that the separate activity of strategy implementation could now begin under the guidance of the head of marketing. To implement the strategy, the head of marketing had to employ a technology (the design briefing book) that would allow her division to procure the data necessary to make recommendations to the R&D team. As the head of marketing commented, ‘There is no way to be a market maker without understanding the industry better and where things are going to go. To do that, we need data – and the design briefing book we created told us what kind of data we needed.’ The CEO and the executive team were unwilling to make the financial investment and organizational changes that would permit marketing to produce a useful briefing book. The result was a fairly inept briefing book that provided little insight to R&D, which then translated into lacklustre prototypes.

This case is illustrative of the role that materiality plays in the materialization (or lack thereof) of strategy. The market opener strategy was based on a belief that the company could predict future trends and create a new market for those trends with new product offerings. But no one on the executive team knew what kind of data would be needed to successfully predict trends. What types of data were needed only became clear after marketing attempted to create a new technology to capture those data. To capture those data required investments that the executive team was not willing to make. Thus, the feasibility of implementing the market opening strategy, and consequently having the strategy in the first place, was contingent upon a technology that was created *after* the *making* of strategy had officially ended.

The blurry line between ‘formulating’ and ‘implementing’

Within studies of technology in organizational action, there is a growing recognition that not only are the social and material components of a

technology, as Orlikowski (2007, 2010) has suggested, ‘constitutively entangled’ but that the line between technology development and implementation is not extremely clear. The activities that people engage in when they are confronted with the affordances and constraints of a new technology in their work feed back (sometimes quickly and other times slowly) to developers, who then redesign technologies to meet those needs. As technologies become more flexible (more easily redesigned by even users themselves) the question of whether development and use are even separate activities at all becomes murkier (Faraj and Azad, 2012; Leonardi, 2011). As Leonardi (2009) has argued, it may be that the reason that distinctions between the making and use of a new technology exist at all is because scholars have developed programmes of research that use the moment of implementation to either begin or end their research. In other words, people tend to focus on how technologies and organizations co-evolve only either up to or after implementation.

Over the past decade, much work on the materiality of organizational life has begun to report that changes in organizing affect how technologies are developed (Klein and Kleinman, 2002; Mackay *et al.*, 2000; Orlikowski, 2000; Poole and DeSanctis, 2004; Vaughan, 1999) – organizational change happens during the process of technology development – and that implementers and users of technologies contribute to technological change (Lewis and Seibold, 1996; Lindsay, 2003; Oudshoorn and Pinch, 2003; Pollock, 2005; Yates, 2005) – technological change happens during the process of technology use. Thus, by separating ‘making’ from ‘using’ we are likely to treat, as if true, conditions that we know are false. For instance, in studies of technology and organizing, we know that the development of a technology does not necessarily cease after users encounter it. Not only is feedback from users often critical for developers who design later versions of a technology (von Hippel, 1988), but users may in some circumstances modify the technology themselves (Johnson and Rice, 1987; Rice and Rogers, 1980). Yet, when we end investigations of development once developers have closed on a design, we cannot speak to how use affects redesign. We also know that technologies are already social products when they arrive in an organizational context. But when we begin studies of use at the time of implementation, we treat the

technology that arrives as a black box because we usually do not know what its prior social history may have been and, hence, why it arrives with its particular constellation of features.

This problem of separating ‘making’ from ‘using’ in studies of technology and organizational change is paralleled in work on strategy making and implementation. What the materiality lens allows us to see, however, is that the very technologies that are essential for implementing strategy also shape its making. In other words, if we take a longer view of strategy making to include those ways in which strategy is actually enacted in practice, we see that the way that strategy is materialized is dependent upon the materiality that is involved in strategy making and implementation. Focusing on one activity without the other is likely to lead us to impoverished views of how and why strategies come to be what they are and work the way they do.

Conclusion

When the executives at the plumbing fixture company recognized that they were unwilling to make the changes necessary to help marketing acquire the kinds of data required by the design briefing book they faced a conundrum. Should they continue to try to make that strategy work? Should they abandon the briefing book? Should they change their strategy? After many months of reflection they decided that the only feasible strategy to adopt was one that they could execute given the resources they were willing to devote. What the design briefing book showed them was that certain data were needed to implement a market opening strategy, and those data were not available. But the data that were available were data about what competitors were doing and why they were doing it, such that the company could easily copy them. This recognition prompted the executive team to jettison the market opener strategy in favour of a ‘fast follower’ strategy. The design briefing book demonstrated that the organization was well equipped, given its current structure and knowledge, to follow market leaders into new categories and design fixtures that were ‘prettier’, ‘more reliable’ and ‘cheaper’ than what the market leaders offered. Adopting this fast follower strategy would allow the company to take advantage of consumer buying

power in new market categories without having to shoulder the risk of trying to open a new category in the first place.

The shift that executives made in their decision to pursue a fast follower strategy, as opposed to how they made the market opener strategy, was to recognize that they had to think about the material ways in which they would attempt to implement their strategy. Developing the technology through which data would be collected allowed them to revise their strategy in a way that contributed to its success at being implemented. As one executive commented, ‘You don’t really have a strategy if it only exists in your head and no one can execute it. Implementability is part of the strategy.’ Put another way, the line between strategy formulation and strategy implementation is not very clear. To materialize a strategy is to focus on the materiality through which the strategy is enacted.

For scholars of strategy, a fruitful avenue of exploration would be to examine how and under what conditions the technologies designed to implement a strategy actually contribute to the making of that very strategy they are designed to implement. By side-stepping not only the dichotomy between the material and the social, as scholars of materiality suggest (Leonardi, 2012), but also by avoiding the dichotomy between strategy formulation and implementation, scholars may be better able to account for the varied ways in which strategy becomes materialized in organizations. They may also be able to better recommend strategy formulation behaviours. For example, the case presented here suggests that strategy makers may do well to delay the ultimate decision on strategic direction until they have thought through what technologies will be needed to make the strategy implementable. Developing those technologies can allow the strategy makers to fine-tune their expectation and objectives and, ultimately, enable them to figure out how to make a strategy that can actually materialize in everyday practice.

References

- Burgelman, R. A. (2001). *Strategy is Destiny: How Strategy-making Shapes a Company's Future*. New York: The Free Press.
- Faraj, S. and B. Azad (2012). ‘The materiality of technology: an affordance perspective’. In P. M. Leonardi, B. A. Nardi and J. Kallinikos (eds), *Materiality and Organizing: Social Interaction in a Technological World*, pp. 237–258. Oxford: Oxford University Press.

- Garengo, P. and S. Biazzo (2012). 'Unveiling strategy in SMEs through balanced scorecard implementation: a circular methodology', *Total Quality Management and Business Excellence*, **23**, pp. 79–102.
- von Hippel, E. (1988). *The Sources of Innovation*. New York: Oxford University Press.
- Jarzabkowski, P. and S. Kaplan (2014). 'Strategy tools-in-use: a framework for understanding "technologies of rationality" in practice', *Strategic Management Journal*. Advance online publication. DOI: 10.1002/smj.2270
- Johnson, B. and R. E. Rice (1987). *Managing Organizational Innovation*. New York: Columbia University Press.
- Kaplan, S. (2011). 'Strategy and powerpoint: the epistemic culture and machinery of strategy making', *Organization Science*, **22**, pp. 320–346.
- Klein, H. K. and D. L. Kleinman (2002). 'The social construction of technology: structural considerations', *Science, Technology, and Human Values*, **27**, pp. 28–52.
- Leonardi, P. M. (2009). 'Crossing the implementation line: the mutual constitution of technology and organizing across development and use activities', *Communication Theory*, **19**, pp. 278–310.
- Leonardi, P. M. (2011). 'When flexible routines meet flexible technologies: affordance, constraint, and the imbrication of human and material agencies', *MIS Quarterly*, **35**, pp. 147–167.
- Leonardi, P. M. (2012). 'Materiality, sociomateriality, and socio-technical systems: what do these terms mean? How are they different? Do we need them?'. In P. M. Leonardi, B. A. Nardi and J. Kallinikos (eds), *Materiality and Organizing: Social Interaction in a Technological World*, pp. 25–48. Oxford: Oxford University Press.
- Leonardi, P. M. and S. R. Barley (2010). 'What's under construction here? Social action, materiality, and power in constructivist studies of technology and organizing', *Academy of Management Annals*, **4**, pp. 1–51.
- Lewis, L. K. and D. R. Seibold (1996). 'Communication during intraorganizational innovation adoption: predicting users' behavioral coping responses to innovations in organizations', *Communication Monographs*, **63**, pp. 131–157.
- Lindsay, C. (2003). 'From the shadows: users as designers, producers, marketers, distributors, and technical support'. In N. Oudshoorn and T. Pinch (eds), *How Users Matter: The Co-construction of Users and Technology*, pp. 29–50. Cambridge, MA: MIT Press.
- Mackay, H., C. Carne, P. Beynon-Davies and D. Tudhope (2000). 'Reconfiguring the user: using rapid application development', *Social Studies of Science*, **30**, pp. 737–757.
- Mintzberg, H. (2002). *The Strategy Process*, 4th edn. New York: Prentice Hall.
- Mintzberg, H. and J. A. Waters (1985). 'Of strategies, deliberate and emergent', *Strategic Management Journal*, **6**, pp. 257–272.
- Mosakowski, E. (1997). 'Strategy making under causal ambiguity: conceptual issues and empirical evidence', *Organization Science*, **8**, pp. 414–442.
- Orlikowski, W. J. (2000). 'Using technology and constituting structures: a practice lens for studying technology in organizations', *Organization Science*, **11**, pp. 404–428.
- Orlikowski, W. J. (2007). 'Sociomaterial practices: exploring technology at work', *Organization Studies*, **28**, pp. 1435–1448.
- Orlikowski, W. J. (2010). 'The sociomateriality of organisational life: considering technology in management research', *Cambridge Journal of Economics*, **34**, pp. 125–141.
- Orlikowski, W. J. and S. V. Scott (2008). 'Sociomateriality: challenging the separation of technology, work and organization', *Academy of Management Annals*, **2**, pp. 433–474.
- Oudshoorn, N. and T. Pinch (2003). 'Introduction: How users and non-users matter'. In N. Oudshoorn and T. Pinch (eds), *How Users Matter: The Co-construction of Users and Technology*, pp. 1–25. Cambridge, MA: MIT Press.
- Pollock, N. (2005). 'When is a work-around? Conflict and negotiation in computer systems development', *Science, Technology and Human Values*, **30**, pp. 496–514.
- Poole, M. S. and G. DeSanctis (2004). 'Structuration theory in information systems research: methods and controversies'. In M. E. Whitman and A. B. Woszczyński (eds), *Handbook of Information Systems Research*, pp. 206–249. Hershey, PA: Idea Group.
- Rice, R. E. and E. M. Rogers (1980). 'Reinvention in the innovation process', *Knowledge*, **1**, pp. 499–514.
- Segev, E. (1987). 'Strategy, strategy-making, and performance in a business game', *Strategic Management Journal*, **8**, pp. 565–577.
- Spee, A. P. and P. Jarzabkowski (2009). 'Strategy tools as boundary objects', *Strategic Organization*, **7**, pp. 223–232.
- Vaara, E. and R. Whittington (2012). 'Strategy-as-practice: taking social practices seriously', *Academy of Management Annals*, **6**, pp. 285–336.
- Vaughan, D. (1999). 'The role of the organization in the production of techno-scientific knowledge', *Social Studies of Science*, **29**, pp. 913–943.
- Yates, J. (2005). *Structuring the Information Age: Life Insurance and Technology in the Twentieth Century*. Baltimore, MD: Johns Hopkins University Press.

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