Business Schools: Context-Specific Social Science for an Operational Purpose

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Business schools do *context-specific social science for an operational purpose.* This has remained oddly undiscovered by the US military and intelligence community: at annual conferences of the Minerva Initiative (the Department of Defense program for funding social science research), *nobody in the room is from a business school*.

This White Paper adopts Heath and Heath's advice (in *Switch: How to Change Things When Change is Hard*, 2016, p. 259) to "*Shrink the change*. Break down the change until it no longer spooks" our emotional side. In particular, the modest goal I propose is that the Decadal Survey will learn *and use* some "context-specific social science for an operational purpose."

For business researchers, contexts are as specific as they are in everyday life. For example, a grain elevator is just a big box. It is a textbook example of a homogeneous product. But the competitive landscape is entirely different in Nebraska, Texas, and Oklahoma. In Nebraska, grain elevators are spaced along the railroad, and harvesting farmers choose the nearest elevator with the shortest wait time. Grain elevators in the Texas panhandle serve feedlots, not farmers rushing to get their harvest out. Grain elevators in Tulsa, OK, get grain from growing areas in Kansas 75-300 miles away, and load it onto river barges for the export market. They compete with Kansas soybean mills for 6 months of the year (fall and winter); the rest of the year that market is lost to Brazil and Argentina as their crops become available.

Once you probe beneath the surface, even a little bit, everyday specific contexts are one-of-a-kind situations. That's a sample size of one, so they can't be investigated with Big-Data statistical inference or controlled experiments, and there are no subject matter experts. Typically, core issues aren't even discovered until you begin investigating. The problem is ill-defined (or a poorly understood aspect of an otherwise well-understood problem) and the goal is to make it a well-defined problem.

Ill-defined problems are often seen as atypical and unusual. They are not. They are the commonplace problems that routinely emerge in everyday life.

When one investigates these, the most urgent priority is to focus the investigation quickly on a specific, bounded context. Merger investigations call this the "relevant market." (My experience with this is several decades investigating business mergers for the Antitrust Division of the US Justice Department – everything from chicken farms to jet fighter radar. We have three weeks to go from clueless to deciding whether to open a full-blown investigation.) Qualitative case studies call it the "case": "A primary goal of within-case analysis is to describe, understand, and explain what has happened in a single, bounded context – the 'case' or site…" (Miles, Huberman, and Saldaña 2013: 100).

The boundaries of a specific context, or "case," are not prespecified. They are discovered through investigation. That is because "at the start of the research, it is not yet quite clear … which properties of the context are relevant and should be included in modelling the phenomenon, and which properties should be left out." (Swanborn 2010: 15) In particular, the roles of various sets of actors "may be uncovered over time, as more data are collected and informants' perspectives are synthesized. In contrast, traditional qualitative sampling methods instruct the researcher to prespecify the roles to be studied." (Shah and Gorbatai 2015: 251)

In this way, "researchers constantly compare theory and data – iterating toward a theory which closely fits the data." (Eisenhardt 1989: 538) Context-specific hypotheses are discovered, tested, revised, and discarded. As they evolve, they redirect the search for relevant information. (Hoven 2016a) Contradictions between data sources are often apparent contradictions, once they are understood, so "contradictions between data sources can improve a researcher's understanding of the focal phenomenon." (Rouse and Harrison 2015: 287)

This process of discovery and problem-solving is a central focus of entrepreneurial research, so that is a rich source of practical advice for the entrepreneurial SBS Decadal Survey. Katre's research on social ventures (those motivated by social change as well as profit) "strongly supported the design-theory based model, suggesting that the three entrepreneurial approaches of experimentation, making connections, and problem-solving are, indeed, central to successfully designing social venture products and processes." (Katre 2013: Abstract)

This will not be a straightforward task. As Harford (2011: 35) observes, "the more complex and elusive our problems are, the more effective trial and error becomes, relative to the alternatives." *Lean Startup* – an entrepreneurial product-development strategy – offers a systematic way to do this: "make small changes in product features that address specific, poorly

understood problems and possibilities; solicit customer feedback; iterate rapidly; pivot sharply as needed to explore more promising opportunities." (Blomberg 2012: 22)

Operational investigations into uncharted territory frequently require finding and forming relationships with partners and end users. Birkinshaw et al. (2007: 16) observe that an effective strategy for building relationships with unusual partners involves "co-opting prospective partners around a shared goal....find a way of transcending the real or imagined differences between them and you, and to create a specific project or activity that they find attractive." For example, there is a segment of the international development community that embraces the importance of context-specific understanding in development projects, and is working hard to learn it. (A good place to begin is the BEAM Exchange, https://beamexchange.org.) However, they haven't yet discovered the qualitative methods that are explicitly designed to accomplish that (fast-feedback qualitative interviewing, qualitative causal inference). Consequently, they have much to contribute, and also much to gain from a shared effort to figure this out.

Birkinshaw et al. (2007: 19) also suggest, "A second approach to moving into uncharted territory is to use a middleman – an agent who can act on your behalf in making the link to prospective partners." Active component Army Civil Affairs Soldiers are the best prospects I have found for this role. They don't know business research, but they know the importance of context-specific understanding, and they are expert in conversational interviews and relationship building. (In 2015, I interviewed soldiers in the 83rd Civil Affairs Battalion at the invitation of their battalion S-3, Jonathan Bleakley.)

Many readers of this White Paper will perceive this investigative method as blundering through a fog, and it is. However, this is the sort of problem setting that qualitative researchers and early-stage entrepreneurs deal with routinely. Moreover, it is precisely this ill-defined complexity that creates an extraordinary opportunity for orchestrating an innovation network for context-specific social science. Klerkx and Aarts (2013: 195) list three "basic and reiterative elements of innovation network orchestration." The third one is the extraordinary opportunity for the SBS Decadal Survey. It is a natural (and largely necessary) complement to the matchmaking in the second element:

"1)   demand articulation: continuous vision development and articulation of related technology, knowledge, and other resource needs;

2)   innovation network composition: scanning, filtering, and matchmaking of new network partners for accessing certain resources;

3)   innovation process management: innovation network coordination, enhancing transparency, fostering reciprocity and building trust, monitoring progress of the innovation process and identifying problems, promoting mutual learning, …, and conflict resolution to maintain network stability." (Klerkx and Aarts 2013: 195)

Furr (2009: 44) concurs: "In summary, the organization change literature suggests that external, real-time information, particularly information developed from interaction with consumers and partners, leads to changes that improve performance." (This Ph.D. dissertation (Furr 2009) is an especially rich source of ideas to develop the SBS Decadal Survey's extraordinary opportunity to foster organizational learning.)

Once this opportunity is recognized, one begins to think about other strategies for each of these elements. Here are a few:

- Ask innovation intermediaries to discover promising match-ups of business research and user needs. Use that understanding to build relationships among users with similar or complementary needs. Nurture those relationships into communities of practice.

- Search for researchers who already act as innovation intermediaries, with cross-disciplinary interests and connections. Offer them one-year sabbaticals in positions where they can nurture new or expanded communities of practice.

- Compile a list of academic conferences that attract people with an actual or potential interest in context-specific social science. Find ways to enhance and assess the ability of these conferences to build communities of practice.

- Search peripheral academic disciplines for outlier innovators. Find speaking and research opportunities for the interesting ones, and ask them for referrals to others.

- Promote the SBS Decadal Survey as an opportunity for dissertation research that can actively test hypotheses on innovation as it unfolds, rather than innovations where the outcome is already known. (Hoven 2016b)

References

BEAM Exchange (Building Effective and Accessible Markets)
https://beamexchange.org

Birkinshaw, J., Bessant, J. & Delbridge, R. (2007) "Finding, Forming, and Performing: Creating Networks for Discontinuous Innovation," *California Management Review* 49, 67-83.
http://facultyresearch.london.edu/docs/SIM48.pdf

Blomberg, Aleksander (2012) "The Lean Startup Approach–and its applicability outside Silicon Valley," Master's Thesis, Copenhagen Business School
http://studenttheses.cbs.dk/xmlui/bitstream/handle/10417/3434/aleksander_blomberg.pdf

Kathleen M. Eisenhardt (1989) "Building theories from case study research," *Academy of Management Review* 14:4, 532-550.
http://euroac.ffri.hr/wp-content/uploads/2010/06/Eisenhardt_1989_Building-Theories-from-Case.pdf

Furr, Nathan R. Cognitive flexibility: The adaptive reality of concrete organization change. Stanford University, 2009.
http://gradworks.umi.com/3382938.pdf

Harford, Tim (2011) *Adapt: Why Success Always Starts with Failure*

Heath, Chip, and Dan Heath (2010) *Switch: How to Change Things When Change is Hard*

Hoven, John (2016a) "Proving Cause-and-Effect for Decisions" (presentation slides with useful visuals)
https://www.researchgate.net/publication/304541341_Proving_Cause-and-Effect_for_Decisions

Hoven, John (2016b) Dissertation Topic Nominations for Special Operations Research AY/FY 2018.
https://www.researchgate.net/publication/312039463_Dissertation_Topic_Nominations_for_Special_Operations_Research_AYFY_2018

Katre, Aparna (2013) Designing Successful Social Ventures: Hands-on Feedback-Seeking Engagement with Stakeholders to Unravel What To Do Next. Diss. Case Western Reserve University.
http://rave.ohiolink.edu/etdc/view?acc_num=case1363178034

Klerkx, Laurens and Noelle Aarts (2013) "The interaction of multiple champions in orchestrating innovation networks: Conflicts and complementarities." *Technovation* 33:6, 193-210
http://www.researchgate.net/profile/Laurens_Klerkx/publication/47817791_The_interaction_of_multiple_champions_in_orchestrating_innovation_networks_conflicts_and_complementarities/links/0deec535585158373f000000.pdf

Miles, Matthew B., A. Michael Huberman, and Johnny Saldaña (2013) *Qualitative data analysis: A methods sourcebook*

Rouse, Elizabeth D., and Spencer H. Harrison (2015) "Triangulate and Expand: Using Multiple Sources of Data for Convergence and Expansion to Enrich Inductive Theorizing," ch. 27 in Elsbach, Kimberly D., and Roderick M. Kramer, eds. *Handbook of Qualitative Organizational Research: Innovative Pathways and Methods*

Rubin, Herbert J. and Irene S. Rubin (2012) *Qualitative interviewing: The art of hearing data*, 3e

Shah, Sonali K., and Andreea D. Gorbatai (2015) "Structural Sampling: A Technique for Illuminating Social Systems," ch. 24 in Elsbach, Kimberly D., and Roderick M. Kramer, eds. *Handbook of Qualitative Organizational Research: Innovative Pathways and Methods*

Swanborn, Peter (2010) *Case Study Research: What, Why, and How*?