

Advances in Strategic Planning

A Research Report by

Charles A. Liedtke, Ph.D.

Strategic Improvement Systems, LLC

www.strategicimprovementsystems.com

Excelsior, Minnesota, USA

charles@sisliedtke.com, Office: 952-380-0778

Abstract: Top Management Teams (TMTs) commonly direct activities to improve organizational performance including strategic planning activities. *Strategic planning* is defined here as “a pattern of formal and informal long-term decision making activities which result in a strategic plan that is implemented, periodically reviewed, and adjusted with the aim of improving organizational performance.” This is an *organizational performance-based* perspective of strategic planning in that some TMTs intentionally use strategic planning as a mechanism to improve organizational performance. Strategic planning is widely practiced in part due to rapidly changing environments, hyper-competitive industries, and extreme uncertainties about the future. This research report describes some of the recent advances in the strategic planning research, literature, and practices. Several academic and practitioner sources were analyzed for *strategic planning advances* leading to an emergent strategic planning system model and the identification of ten emergent themes.

Keywords: Organizational Performance, Strategy, Strategic Planning, Policy Management

<u>Research Report Sections</u>		<u>Page</u>
I.	Introduction	2
II.	Advances in Strategic Planning Research	7
III.	Advances in Strategic Planning Literature	11
IV.	Advances in Strategic Planning Practices	16
V.	Insight Stimulating Organizations	19
VI.	Emergent Themes	21
VII.	Closing Comments	23
	Acknowledgements	24
	References	24
	Author Information	28

Note: The anthropomorphic convention of ascribing human qualities to organizations will be used in this research report. For example, a phrase such as “Company X conducts a strategy review every year.” means “The senior executives of Company X conduct a strategy review every year.”

I. Introduction

“Our strategic plan has to be more than just a thick binder that sits on a shelf.”
- Anonymous CEO

Organizations vary considerably in how they measure organizational performance and the performance metrics they value. Some organizations value *financial* metrics whereas others value *safety* or *quality* metrics. Figure 1 depicts common organizational performance categories. An organizational performance *category* (*Safety*) is a higher-level construct than an organizational performance *metric* (*Lost Time Injury Frequency Rate*). One potential unintended consequence of performance measurement is that *hard-to-measure* phenomena might be neglected.

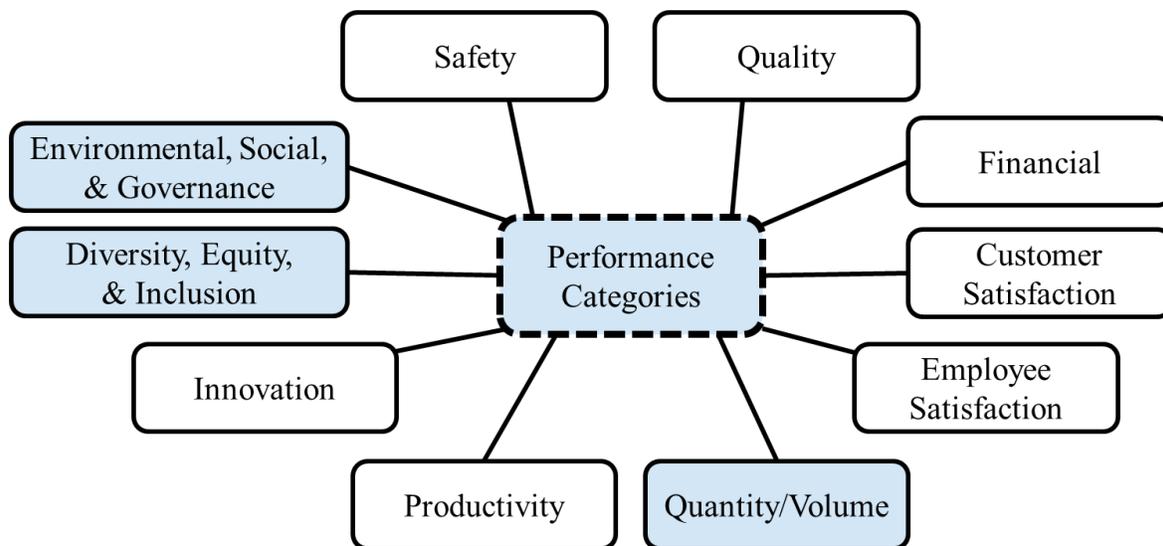


Figure 1. Organizational Performance Categories.

The three highlighted performance categories in Figure 1 appear to be gaining in popularity: *Quantity/Volume*; *Diversity, Equity, & Inclusion (DEI)*; and *Environmental, Social, & Governance (ESG)*. Technology Platform Companies report and emphasize *Quantity/Volume* statistics such as Daily Active Users (DAU) and Average Time on Platform (ATP). Some organizations are attempting to increase the *diversity* of their Board of Directors, managerial class, and general workforce. Additionally, many organizations are attempting to reduce their *environmental* impacts by reducing emissions. The CEOs of some corporations are re-thinking the purpose of their company. According to Gelles and Yaffe-Bellany (2019): “Breaking with decades of long-held corporate orthodoxy, the Business Roundtable issued a statement on ‘the purpose of a corporation,’ arguing that companies should no longer advance only the interests of shareholders. Instead, the group said, they must also invest in their employees, protect the environment and deal fairly and ethically with their suppliers.” This development might lead to a change in performance priorities.

An example of an organizational performance metric related to *Safety* is Lost Time Injury Frequency Rate (LTIFR) which is depicted in Figure 2 using a time series plot. This organization developed a strategic objective to decrease the LTIFR from 3.6 to 2.0 by July 31, 2020. From a statistical perspective, LTIFR can be thought of as a dependent variable (Y) that is affected by several independent variables (Xs). LTIFR is a “function” of a set of X variables which could be new employee orientation, training, supervision, standard work, and the use of best practices.

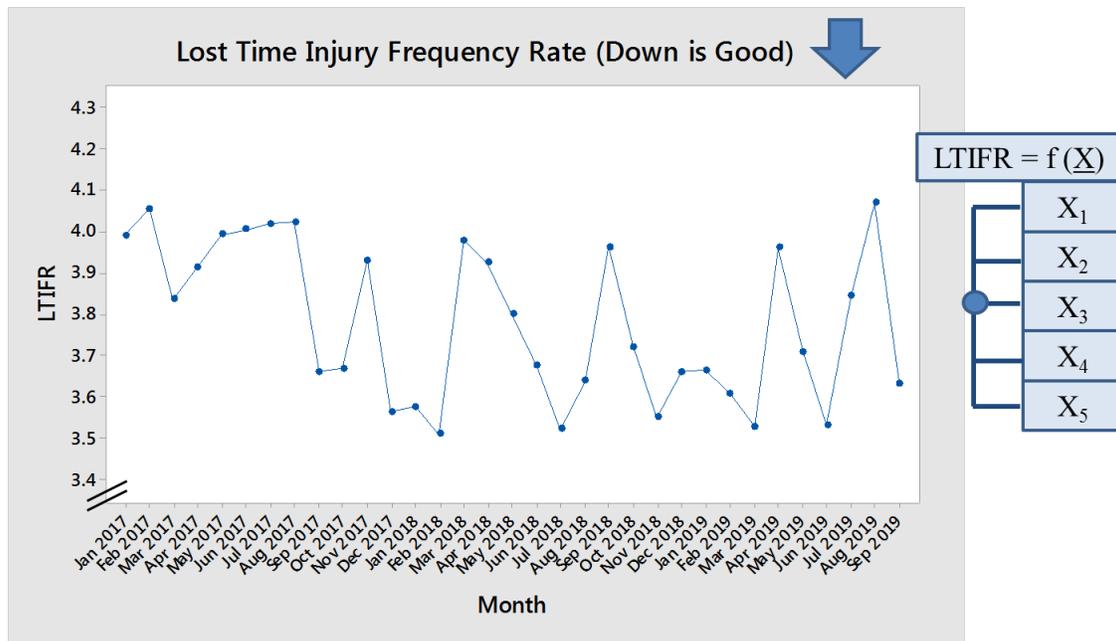


Figure 2. Monthly Lost Time Injury Frequency Rate (Down is Good).

Top Management Teams (TMTs) sometimes review multiple metrics in the form of an organizational performance dashboard during a monthly or quarterly review meeting. This is depicted in Figure 3. TMTs are responsible for setting the aspiration level of the organization on these metrics. Three guiding questions are relevant: (1) How *good* do we want our organization to become?, (2) How committed are we in achieving that level of *goodness*?, and (3) What must we do in order to achieve those levels? Deming (1982) suggested three basic questions: “Where do you hope to be five years from now?” and “How may you reach this goal? By what method?”

Strategic planning is one formal approach for developing and implementing a strategic plan. Numerous definitions of *strategy* and *strategic planning* have been suggested over the years. One central concept is the *objective* which is a *statement that describes what you would like to accomplish*. Drucker (1954) emphasized the importance of objectives: “Objectives are needed in every area where performance and results directly and vitally affect the survival and prosperity of the business.” Chandler (1962) offered one of the first definitions of *strategy*: “*Strategy* can be defined as the determination of the basic long-term goals and objectives of an enterprise, and the

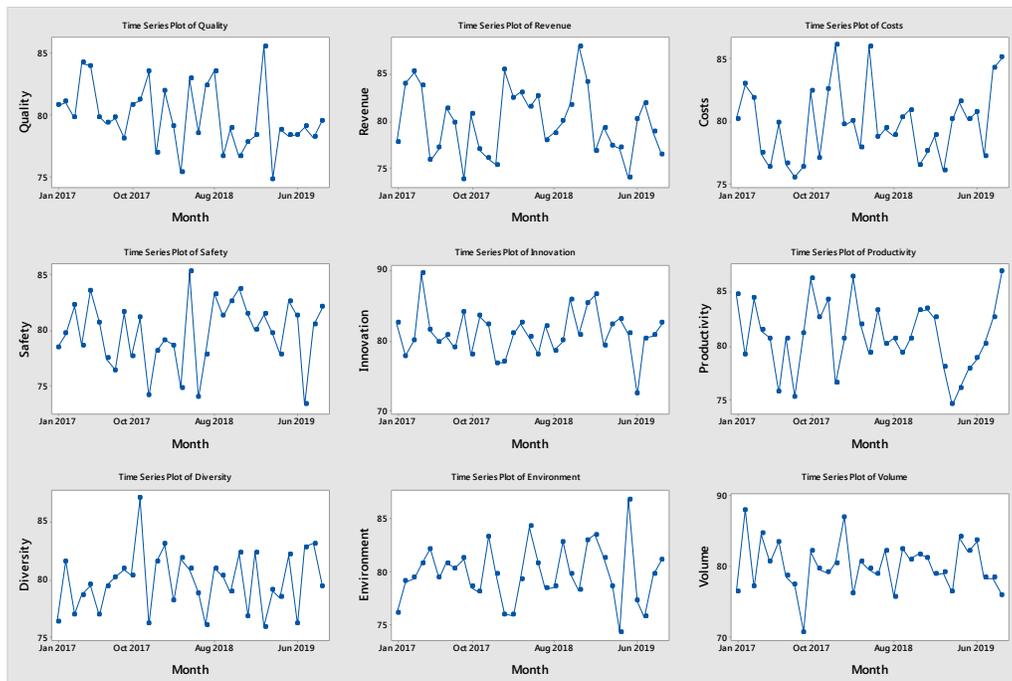


Figure 3. Example of an Organizational Performance Dashboard.

adoption of courses of action and the allocation of resources necessary for carrying out these goals.” Andrews (1971) offered a definition of Corporate Strategy: “Corporate strategy is the pattern of decisions in a company that determines and reveals its objectives, purposes, or goals, produces the principal policies and plans for achieving those goals, and defines the range of business the company is to pursue, the kind of economic and human organization it is or intends to be, and the nature of the economic and noneconomic contribution it intends to make to its shareholders, employees, customers, and communities.” Steiner (1979) defined formal strategic planning from four points of view: Futurity of Current Decisions, Process, Philosophy, and Structure. According to Steiner: “It [strategic planning] is truly a systems approach to maneuvering an enterprise over time through the uncertain waters of its changing environment to achieve prescribed aims.” More recently, Wolf and Floyd (2017) defined strategic planning as “. . . a more or less formalized, periodic process that provides a structured approach to strategy formulation, implementation, and control.” **Strategic planning** is defined in this research report as “*a pattern of formal and informal long-term decision making activities which result in a strategic plan that is implemented, periodically reviewed, and adjusted with the aim of improving organizational performance.*” This is depicted in Figure 4.

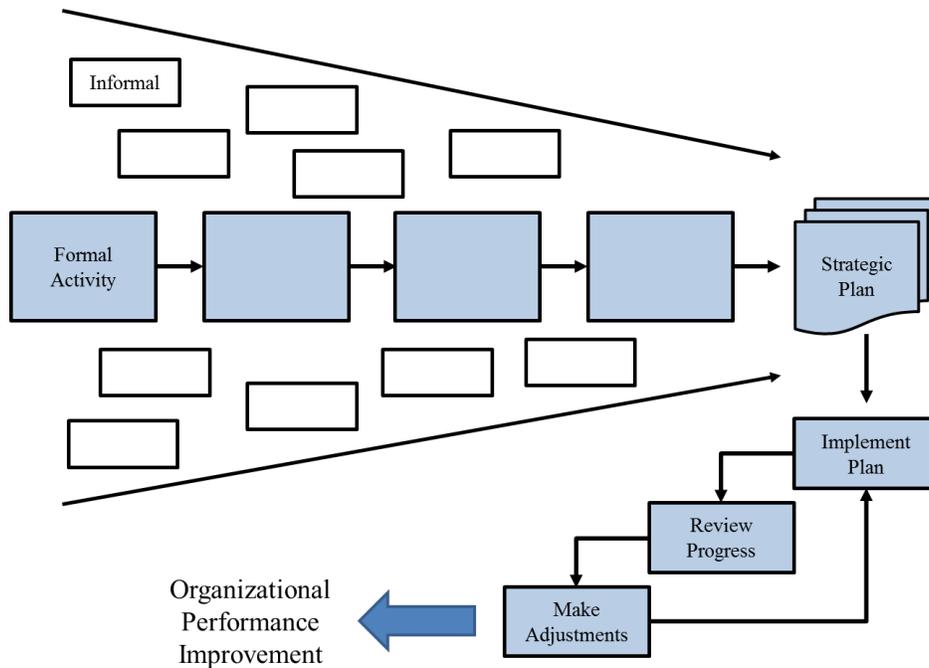


Figure 4. Conceptual Strategic Planning Process.

Strategic planning processes vary considerably across organizations. An example of a strategic planning process is depicted in Figure 5. Some of the more common activities that occur during

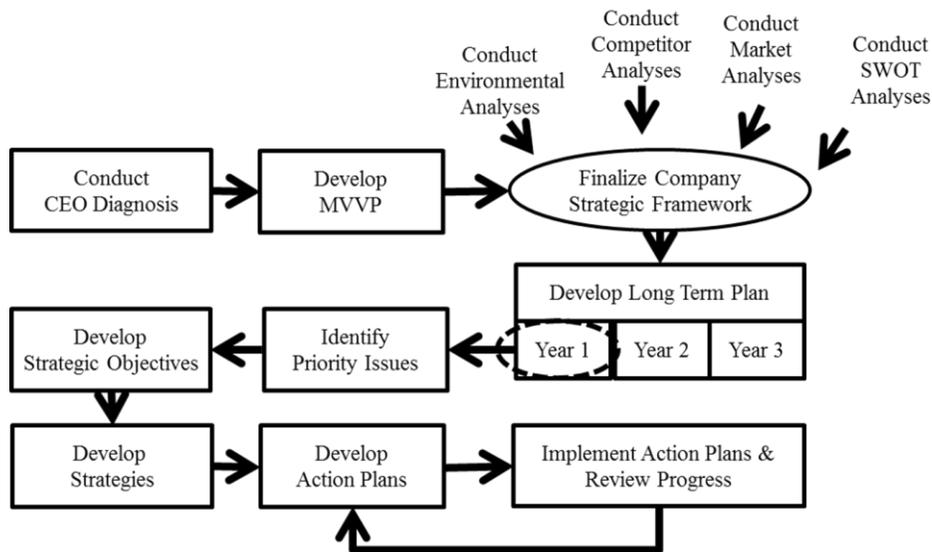


Figure 5. Sample Strategic Planning Process.

strategic planning processes include visioning, scanning, analyzing, synthesizing, prioritizing, selecting, developing, deploying, aligning, communicating, educating, implementing, reviewing,

and adjusting. These activities can occur during two major stages: (1) strategy development or formulation and (2) strategy implementation or execution. Schleh (1955) suggested a five-point program for accomplishing goals: “1. Define the goals. 2. Define the rules or limits to be followed in meeting these goals. 3. Develop the policy or method to meet these goals. 4. Install the policy or method. 5. Follow up, check on, and improve the policy or method.” The Plan-Do-Check-Act (PDCA) Cycle (see, e.g., Deming, 1982) can be used to conceptualize and conduct strategic planning: Develop the Plan (Plan), Implement the Plan (Do), Review Progress (Check), and Take Appropriate Actions (Act). Deming (1994) advocated re-naming the “Check” Step in PDCA to the “Study” Step (PDSA) in order to encourage more than a cursory “*go and look*” activity. Ishikawa (1990) described a six step control cycle as an enhancement of the PDCA cycle: “1) Decide on an objective, 2) Decide on the methods to be used for achieving the objective, 3) Carry out training and education, 4) Do the work, 5) Check the results, 6) Take corrective Action.” These PDCA (or PDSA) cycles can be rotated daily, weekly, monthly, quarterly, annually, and/or as needed.

Calendar-based management system cycles can play an important role in strategic planning processes. These are often associated with reporting and performance review processes. Figure 6 depicts three levels of calendar-based management system cycles associated with the twelve calendar months (J = January, F = February, etc.): Annual Cycle (the largest oval), Quarterly Cycle (the four medium-sized ovals), and the Monthly Cycle (the twelve smallest ovals). TMTs can synchronize strategic planning activities with these cycles.

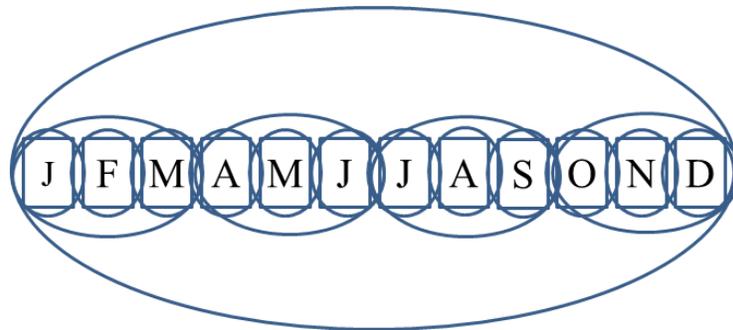


Figure 6. Calendar-Based Management System Cycles.

There are directional relationships between Strategic Planning Practices (*what is practiced*), Strategic Planning Research (*what is studied*), and Strategic Planning Education (*what is taught*). These relationships are depicted in Figure 7. This leads to six potential directional relationships:

- What is *practiced* can be *studied* (SP Practices > SP Research).
- What is *studied* can be *taught* (SP Research > SP Education).
- What is *taught* can be *practiced* (SP Education > SP Practices).
- What is *practiced* can be *taught* (SP Practices > SP Education).
- What is *taught* can be *studied* (SP Education > SP Research).
- What is *studied* can be *practiced* (SP Research > SP Practices).

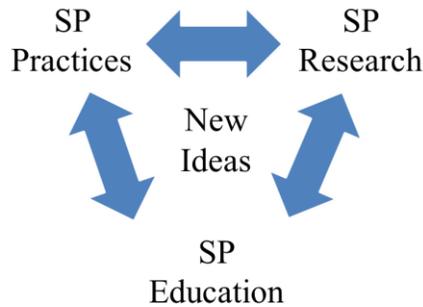


Figure 7. Strategic Planning (SP) Innovation Model.

One important implication is that a new strategic planning idea (i.e., an *advance*) can *originate* in any of the three components and then *spread* to the others. This research report addresses the following research question: **What are some recent advances in the strategic planning research, literature, and practices?** Analyses of multiple academic and practitioner sources were conducted leading to a descriptive emergent strategic planning system model and the identification of ten emergent themes.

II. Advances in Strategic Planning Research

Four academic sources were analyzed for *advances in strategic planning research*: (1) the meta-analysis paper by Wolf and Floyd (2017); (2) the Strategic Management Journal (SMJ) Special Issue on Strategy Processes and Practices; (3) the SMJ Special Issue on New Theory in Strategic Management; and (4) the Strategic Management Society's (SMS) 39th Annual Conference held in Minneapolis, MN from October 19-22, 2019.

Wolf & Floyd 2017 Paper

Wolf and Floyd (2017) conducted a meta-analysis of 117 strategic planning-related papers from academic and practitioner journals. According to the authors, "The purpose of this article is to analyze the changing nature of strategic planning research since the 1980s." The authors commented: "Despite the fact that strategic planning is one of the most widely used management tools in contemporary organizations . . . the number of research publications in highly ranked academic journals on the subject has dropped significantly since the early 1990s."

The authors analyzed strategic planning papers from two time periods: **Era One** from 1980 to 1993 (65 papers) and **Era Two** from 1994 to 2011 (52 Papers). They chose 1994 as a demarcation year because it was a *turning point year* for strategy research for three reasons: (1) the meta-analysis paper by Miller and Cardinal in 1994 addressed many of the major research questions up

to that time; (2) Mintzberg's landmark 1994 book was published which described some of the fallacies of strategic planning; and (3) there started to be a decline in the number of papers published in highly-ranked academic journals. According to Wolf and Floyd: "After Mintzberg's discourse on the fallacies of strategic planning, a reorientation in research took place, bringing new perspectives and assumptions and launching a new era."

The authors devised a literature-grounded research framework consisting of eight categories which they then used to classify the strategic planning (SP) content in the 117 journal papers: SP Practitioners, SP Practices, SP Praxis, Underlying Model of the Strategy Process, Proximate Outcomes, Distal Outcomes, Organizational Contingencies, and Environmental Contingencies. Each of the 117 papers was analyzed for the (1) research method employed and (2) research framework topics that were discussed (content). There were 145 research framework topics identified from the sixty-five papers from Era One and 133 research framework topics identified from the 52 papers in Era Two.

Wolf and Floyd's summary conclusion for Era One was the following: "In sum, strategic planning research between 1980 and the early 1990s seems dominated by the evaluation of the effects of strategic planning on distal organizational outcomes, mostly measures of organizational performance, and questions of how to design strategic planning systems given specific environmental and/or organizational contingencies."

One of Wolf and Floyd's summary statements for Era Two described a theoretical shift: "The diversity of topics and research foci since the mid-1990s contributes to a wider variety of theoretical perspectives than we observed prior to 1994, adding to the contingency approaches and rational-design school thinking of earlier research. Compared with other domains, however, strategic planning research has not been noted for its rigorous theory." They later stated: "We would argue, consequently, that future research should do more to incorporate a wider variety of theories into conceptual and empirical work on strategic planning."

The authors suggested in one of their conclusions that the rational-analytical model has been useful in advancing strategic planning knowledge, but other theoretical perspectives are necessary:

"Strategic planning research suffers from several weaknesses that undermine its potential impact in the academic literature as well as its ultimate value in the world of practice. In our opinion, the most important of these—already mentioned—is the lack of theory that typifies this body of work. While there are notable exceptions, the majority of the studies, and especially early research, adopt a rational-analytical model of strategic planning and conceptualize contingencies, like uncertainty in the external environment, that are born out of this model. The rationalist logic has proved useful, and planning research of this kind has led to a significant amount of normative theory. Organizational science has matured considerably since the early days, however, and a number of theories in domains adjacent to strategic planning (e.g., strategy process) and others in more distant domains, such as institutional theory and cognitive psychology, suggest themselves for use in the planning context. To date, there has been too little integration of these theories into explanations of strategic planning."

This paper is essential reading for those interested in the evolution of strategic planning research and the current theoretical perspectives used to conduct research on strategic planning.

SMJ Special Issue on Strategy Processes and Practices: Dialogues and Intersections

March 2018, Volume 39, Number 3, Wiley Blackwell

This Special Issue of the Strategic Management Journal focused on the integration of two strategic management research streams: Strategy Process (SP) and Strategy-as-Practice (SAP). The primary result is a proposed integrated research stream and approach which is described as Strategy as Process and Practice (SAPP) (Burgelman, *et al.*, 2018). The paper by Mirabeau *et al.* (2018) also clearly describes the differences between those two research perspectives.

Listing of Articles

- Strategy processes and practices: Dialogues and intersections** by R. A. Burgelman, S. W. Floyd, T. Laamanen, S. Mantere, E. Vaara, and R. Whittington
- Relating microprocesses to macro-outcomes in qualitative process and practice research** by Kouame and Langley
- Bridging practice and process research to study transient manifestations of strategy** by Mirabeau, Maguire, and Hardy
- New CEOs and their collaborators: Divergence and convergence between the strategic leadership constellation and the top management team** by Ma and Seidl
- Strategy as staged performance: A critical discursive perspective on keynote speeches as a genre of strategic communication** by M. Wenzel and J. Koch
- A universe of stories: Mobilizing narrative practices during transformative change** by E. Dalpiaz and G. Di Stefano
- Connecting and creating: *tertius iungens*, individual creativity, and strategic decision processes** by O. P. Kauppila, L. Bizzi, and D. Obstfeld
- How innovators reframe resources in the strategy-making process to gain innovation adoption** by R. P. Kannan-Narasimhan and B. S. Lawrence
- Evolving efficacy of managerial capital, contesting managerial practices, and the process of strategic renewal** by S. Pratap and B. Saha
- Toward a social practice theory of relational competing** by P. Jarzabkowski and R. Bednarek
- Inter-organizational sensemaking in the face of strategic meta-problems: Requisite variety and dynamics of participation** by D. Seidl and F. Werle
- Emotional practices: how masking negative emotions impacts the post-acquisition integration process** by N. Vuori, T. O. Vuori, and Q. N. Huy
- The power of PowerPoint: A visual perspective on meaning making in strategy** by E. Knight, S. Paroutis, and L. Heracleous
- Enacting knowledge strategy through social media; Passable trust and the paradox of nonwork interactions** by T. B. Neeley and P. M. Leonardi

The set of articles in this SAPP Special Issue is quite diverse with topics ranging from *narratives* to *individual creativity* to *social media*. The paper by Burgelman *et al.* (2018) served as kind of a *capstone article* within which the authors commented on the state of the Strategy Process research: “Using this demarcation of the strategy process research domain, our review of the literature published during 1992-2016 found the following main themes of strategy process research: (a) strategic decision-making and decision processes, (b) actors involved including the CEOs, TMTs, boards, middle management, venture managers, team leaders, and other employees,

(c) cognition, including attention, behavioral dynamics, and emotion, (d) strategic renewal and the evolution of competences and capabilities, (e) configurations of strategic planning, control systems and other formal processes, (f) organizations as ecologies of strategic initiatives subject to the selection forces of (guided) evolution, (g) and strategic issue management.” The authors identified five substreams of Strategy-as-Practice research: “In our review, we identified five streams or substreams of research on strategy practices (a) social and organizational practices in strategy-making, (b) roles and identities of the practitioners, (c) sensemaking, discourses and narratives, (d) sociomateriality and strategy tools, and (e) power and criticality in strategy work.”

One of the primary contributions of the paper by Burgelman *et al.* was the introduction of the Combinatory Model of Strategy as Process and Practice (SAPP) which depicts the dynamic relationships during strategy work between **Actors** (e.g., managers, consultants, and employees), **Practices**, the **Strategy Formation Process**, **Realized Strategy**, and **Issues** that trigger **Strategizing Episodes**. This integrative model effectively depicts how key strategy elements potentially interact over time. Another contribution by the authors was the identification of six key intersecting areas of interest for future research: Temporality; Actors and Agency; Cognition and Emotionality; Materiality and Tools; Structures and Systems; and Language and Meaning.

SMJ Special Issue on New Theory in Strategic Management

June 2018, Volume 39, Number 6, Wiley Blackwell

This Special Issue of the Strategic Management Journal focused on theoretical research in strategic management. Theory is central to the journal as evidenced by an excerpt from the Editorial Statement of the Special Issue: “. . . the Strategic Management Journal seeks to publish papers that develop and/or test theory, replicate prior studies, explore interesting phenomenon, and evaluate the many methodologies used in our field.”

Listing of Articles

Theory in strategic management by S. K. Ethiraj, A. Gambardella, and C. E. Helfat

A practical guide for making theory contributions in Strategic management by R. Makadok, R. Burton, and J. Barney

Toward a dynamic notion of value creation and appropriation in firms: The concept and measurement of economic gain by M. B. Leiberhan, N. Balsubramanian, and R. Garcia-Castro

Transaction surplus superiority in canonical market segments: Using the profit map to guide positioning by S. Postrel

A basic theory of inheritance: How bad practice prevails by F. Vermeulen

Do new entrants sustain, destroy, or create guaranteed profitability? by G. MacDonald and M. Ryall

An economic case for CSR: The comparative efficiency of for-profit firms in meeting consumer demand for social goods by A. Kaul and J. Luo

A property rights theory of competitive advantage by R. Bel

Surrendering control to gain advantage: Reconciling openness and the resource-based view of the firm by O. Alexy, J. West, K. Klapper, and M. Reitzig

The sources of dynamism in dynamic capabilities by C. Salvato and R. Vassolo

Toward an integrated theory of strategy by M. Zollo, M. Minoja, and V. Coda
The growth of the firm: An attention-based view by J. Joseph and A. J. Wilson

Like the previously mentioned Special Issue on SAPP, this Special Issue contains a variety of theory-related topics. One highlight was the practical guide for making contributions to existing theory by Makadok *et al.* (2018): “. . . any theory can be viewed as combining eight parts: (a) a research question, (b) a mode of theorizing, (c) a level of analysis, (d) a phenomenon, (e) a causal mechanism, (f) a set of constructs or variables, (g) a set of boundary conditions, and (h) a set of outputs, such as explanations, predictions, or prescriptions.” The authors succinctly described the various *elements of a theory* thereby showing where contributions to theory can be made.

Strategic Management Society (SMS) 2019 Annual Conference in Minneapolis, MN

The headquarters of the Strategic Management Society (SMS) is located in Chicago, IL. The SMS has over 3,000 members. The membership body consists of two large member communities (Teaching Methods & Research Methods) and fourteen interest groups (listed in alphabetical order): Behavioral Strategy, Competitive Strategy, Cooperative Strategy, Entrepreneurship & Strategy, Global Strategy, Knowledge & Innovation, Stakeholder Strategy, Strategic Human Capital, Strategic Leadership & Governance, Strategy Practice, Strategy Process, Research Methods Community, and Teaching Community (see Strategic Management Society, 2018).

The SMS 39th Annual Conference was held October 19-22, 2019 in Minneapolis, MN with the theme: “*Out of the Spotlight*” *Strategies*. There were attendees from 44 countries consisting of scholars, practitioners, and consultants. There were speeches, panel discussions, and hundreds of presentations on new strategy research on such topics as Corporate Governance, Global Strategy, Entrepreneurship, Networks, AI, Big Data, Platform Business Models, Open Strategy, and Corporate Social Responsibility. The SMS 40th Annual Conference will be held in London from October 24-27, 2020.

III. Advances in Strategic Planning Literature

It is difficult to pinpoint the exact year when *strategy* (or *business policy* or *strategic planning*) became a formal field of study. The first *Business Policy* course was taught at the Harvard Business School in 1911 (Bower *et. al.*, 1991): “The history of the Business Policy course at the Harvard Business School began in 1911, when a small group of instructors first developed a course outline and materials for a pioneering venture in education for general management.” There have been numerous *strategy* concepts introduced over the years that are still relevant today. For example, *strategic thinking* (Ohmae, 1982); *weak and strong signals* (Ansoff, 1984); *competitive strategy* (Porter, 1980); *emergent strategy* (Mintzberg & Waters, 1985); *competitive advantage* (Porter, 1985); *blue oceans* (Kim & Mauborgne, 2005); the *red queen effect* (Barnett, 2008); *coherence* (Rumelt, 2011), and *strategic intent* (Hamel & Prahalad, 2013) to name but a few. A timeline of

selected *strategy* papers, books, and events is depicted in Figure 8 which provides a historical context for discussing more recent strategic planning works.

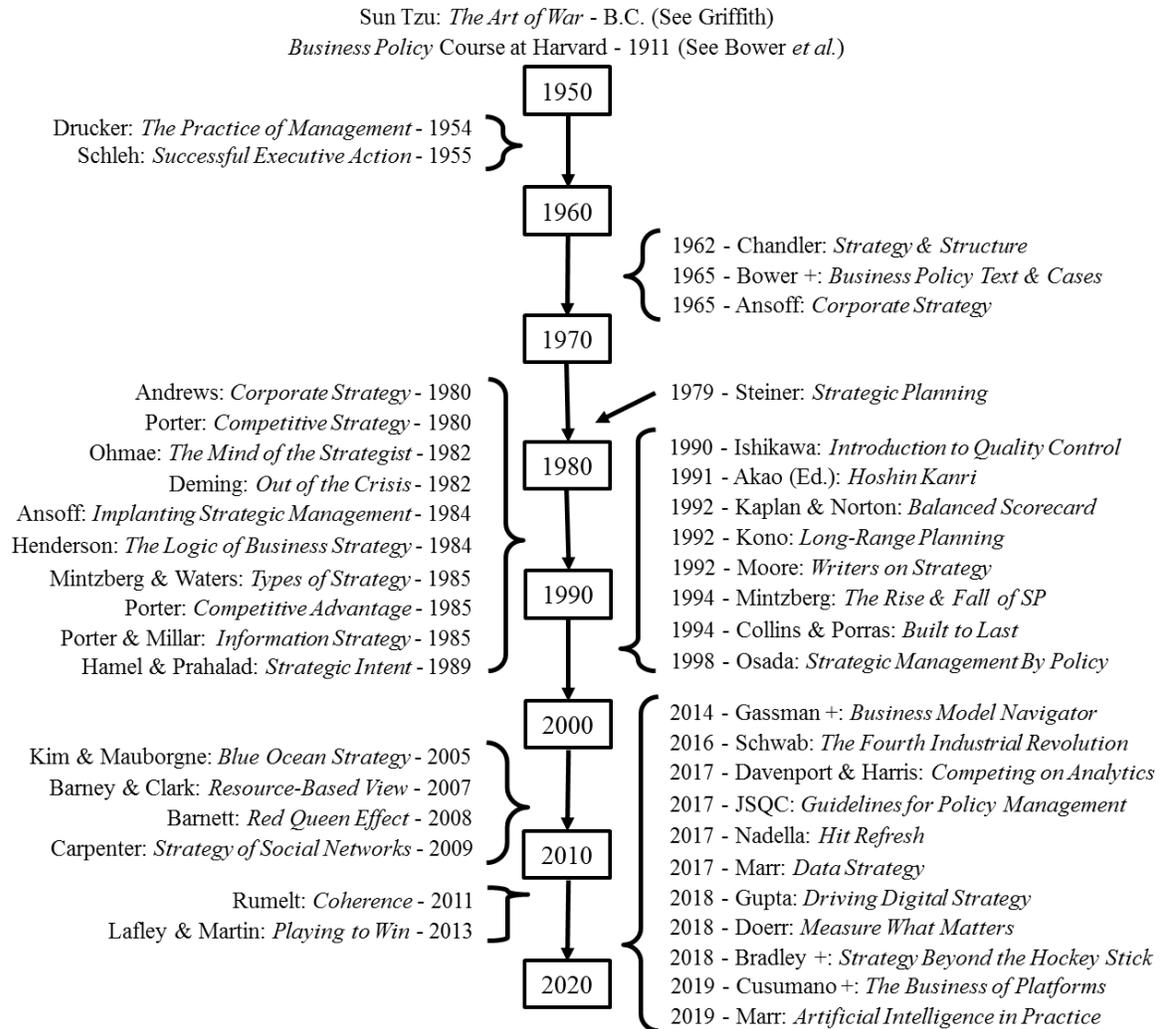


Figure 8. Timeline of Selected Strategy Papers, Books, and Events.

Ten books that were published in the past five years were selected to provide insights into some of the *advances in the strategic planning* literature. Two main themes cut across the ten books: *technology* and *analytics*. The books will now be introduced and briefly described along with a recent publication of the Japanese Society for Quality Control.

Business Model Navigator by Gassman, Frankenberger, & Csik (2014)

The *business model* has become an important topic recently in the strategy field in part due to the growing number of technology platform business models. Gassman, Frankenberger, and Csik (2014) offered a basic description of a business model: “In sum, a business model defines who

your customers are, what you are selling, how you produce your offering, and why your business is profitable.” The authors introduce and describe the Business Model Navigator Model which appears to be a practical model that can be used to design or innovate a business model. The authors also present and describe fifty-five unique business models with examples.

***The Fourth Industrial Revolution* by Schwab (2016)**

Schwab (2016)—who is the founder and Executive Chairman of the World Economic Forum—describes some of the profound global changes that are affecting organizations in the context of what has been formally named the *Fourth Industrial Revolution* (i.e., *Industry 4.0*). Scanning the environment for potential opportunities and threats is a common strategic planning practice. Many TMTs are discussing these global changes during strategic planning events. The author discusses the *Fourth Industrial Revolution* and then describes three “Drivers” in the form of Megatrends (Physical, Digital, & Biological). The third chapter then describes the “Impacts” on the Economy, Business, National and Global, Society, and the Individual.

***Competing on Analytics* by Davenport & Harris (2017)**

This book is an updated version of the 2007 book. Davenport and Harris (2017) make a compelling case for how analytics can help an organization attain a competitive advantage. TMTs can use analytics throughout the strategic planning process to aid decision making. The authors describe the nature of analytical competition, offer useful definitions of key terms, provide some applications and company examples, and suggest some organizational capabilities that can be developed. The Delta model for building analytics capability—consisting of five parts—was especially interesting: Data, Enterprise, Leadership, Targets, and Analysts.

***Hit Refresh* by Nadella (2017)**

Nadella (2017) chronicles in this book his journey from humble beginnings to the CEO position at Microsoft. He has the unenviable task of leading Microsoft in the shadows of Bill Gates and Steve Ballmer (the two legendary former CEOs). This is an interesting book from an *advances in strategic planning practices* perspective because it provides a first-hand account of a CEO who is attempting to transform his organization through a strategic planning/change process. Nadella describes the strategic change process he used in his attempt to transform Microsoft. He identifies some of the early questions he posed: “What is my vision? What is the strategy to achieve it? What does success look like and where to get started?” He went on to describe in detail some of his strategic planning activities and the evolution of his thinking: “Over the first several months of my tenure, I devoted a lot of time listening, to anyone and everyone just as I had promised to do in that Thanksgiving memo to the board. I met with all of our leaders and made a point of going out as I always had to meet with partners and customers. As I listened, there were two questions I was still trying to answer. The first, why are we here? Answering this question would be central to defining the company for years to come. The second question was, what do we do next?” Central to the transformation at Microsoft according to Nadella was the adoption of a *growth mindset*:

“When we exercise a growth mindset by being customer-obsessed, diverse, and inclusive and act as One Microsoft, that’s when we live our mission and truly make a difference in the world.” This book is a rich, detailed glimpse into a strategic planning process from the perspective of a CEO.

Data Strategy by Marr (2017)

Marr (2017) describes the increasing importance of using data to improve business decisions and business operations and he makes a compelling case for developing data capabilities and a data strategy. Data—and analytics—is playing an increasing role in strategic planning processes at many organizations. The author describes the different types of data and analytical approaches and how an organization can begin to develop an effective data infrastructure. He offers practical “how to” advice for getting started on a *data strategy* journey.

Driving Digital Strategy by Gupta (2018)

This is another useful book on *digital strategy*. Gupta (2018) describes how to reimagine and reinvent your business model through the lens of a Framework for Digital Leadership. The framework depicts how an organization can achieve digital leadership by strengthening its core and building for the future through four activities: Reimagine Your Business, Reevaluate Your Value Chain, Reconnect with Your Customers, and Rebuild Your Organization. The author also describes the platform revolution and leading organizations on the *digital strategy* frontier.

Measure What Matters by Doerr (2018)

This book describes the simple, but effective approach for setting and accomplishing goals called “Objectives and Key Results (OKRs).” Doerr (2018) provides a fairly detailed glimpse into how organizations—primarily technology companies—use the OKR approach as a strategic planning practice. The author describes OKRs as “. . . a collaborative goal-setting protocol for companies, teams, and individuals.” He discusses how OKRs have been used by such companies as Intel, Google, and Intuit. The OKR approach is a relatively straightforward approach for setting and aligning objectives and the strategies for achieving them. The author also provides some insight into Andy Grove—the former CEO of Intel—whom he refers to as “The Father of OKRs.”

Strategy Beyond the Hockey Stick by Bradley, Hirt, & Smit (2018)

Don’t let the cartoons fool you – this book is filled with practical advice on strategy from consultants at McKinsey & Company which is considered one of the leading *strategy firms* in the world. The authors discuss at length the social side of strategy and the biases inherent in strategy rooms. They describe in detail some of the common strategy challenges and mistakes which is useful for anyone tasked with leading a strategy process. The eight shifts to unlock strategy were especially insightful: Strategy as a Journey, Discussing Real Alternatives, Picking Your 1-In-10s, Making Big Moves, Liquid Resources, Open Risk Portfolios, A Holistic Performance View, and Forcing the First Step.

***The Business of Platforms* by Cusumano, Gawer, & Yoffie (2019)**

As mentioned earlier, the *business model* has become an important topic recently in the strategy field in part due to the growing number of technology platform business models. Cusumano *et al.* (2019) describe the three major types of platform business model companies: transaction platform companies, innovation platform companies, and hybrid platform companies. They also describe the basic anatomy of a platform and the potential value of platform network effects. Numerous company examples are shown which *brings to life* the platform concept. The authors also describe in detail four steps to building a platform business.

***Artificial Intelligence in Practice* by Marr (2019)**

Marr (2019)—mentioned earlier for his book on *Data Strategy*—describes the Artificial Intelligence (AI) practices at 50 companies. The author separates the fifty companies into five categories which provides the reader with a diversity of AI applications: Artificial Intelligence Trailblazers; Retail, Consumer Goods and Food and Beverage Companies; Media, Entertainment and Telecom Companies; Services, Financial and Healthcare Companies; and Manufacturing, Automotive, Aerospace and Industry 4.0 Components. Many organizations are discussing the potential of AI during strategic planning sessions and then subsequently launching AI initiatives. According to the author: “There are three key use cases for AI in business, which can overlap to some degree, but help to segment the opportunities. Businesses can use AI to: (1) change the way they understand and interact with customers, (2) offer more intelligent products and services, (2) and (3) improve and automate business processes.” The author made a relevant comment from an *advances in strategic planning* perspective: “The starting point for any use of AI should be an AI and data strategy that identifies the biggest strategic opportunities and threats for any business and then pinpoints the most impactful applications.”

Additional Resource - JSQC Standard (2017): Guidelines for Policy Management

The Japanese Society for Quality Control (JSQC) recently published the English version of the *JSQC Standard: Guidelines for Policy Management, JSQC-Std 33-001 (E) : 2017* (The Japanese Society for Quality Control, 2017). It is an official English translation of the 2016 Japanese version. *Policy Management* (a.k.a., *Policy Deployment, Hoshin Kanri, and Hoshin Planning*) is an approach used by organizations to achieve improvement and innovation. The document contains new Policy Management content relative to the classic texts on the subject (see, e.g., Akao, 1991) and more contemporary research (see, e.g., Liedtke, 2012, 2017).

The *Guidelines for Policy Management* is a comprehensive “*how to*” document for practitioners that is structured in eight general sections plus two Annex Sections: (1) Scope, (2) Normative References, (3) Terms and Definitions, (4) Fundamentals of Policy Management, (5) Processes of Policy Management, (6) How to Implement Policy Management in a Function, (7) How to Implement Organization’s Overall Policy Management, (8) Promotion of Policy Management, (Annex A) Examples of Formats for Policy Management, and (Annex B) Self-Assessment of Policy Management. The *Guidelines for Policy Management* provide practitioners with a process,

framework, and vocabulary for developing, deploying, and accomplishing customer-oriented business objectives related to priority issues. The following content was especially relevant from an *advances in strategic planning* perspective:

- Definition of Policy Management: “Activities to achieve policies by the unity of purpose and priority approach with engagement of all functions and levels.”
- The Elements of a Policy: Priority Issue, Objective, & Means.
- Relationships between the Business Plan, Policy Management, and Daily Management.
- The Three *Streams* of Policy Management: Deployment, Integration, & Reacting to Environmental Changes.
- The Founding Management Principles of Policy Management: Leadership, Priority Approach, Total People Involvement, Process Focus, & Fact-Based Management.
- The Relationship between Upper Level Policies, Functional Policies, Action Plans, Control Points, Control Levels, and Control Documents.
- How to Check the Implementation Status of Action Plans.
- A Framework for Conducting a Review (Four Scenarios).
- Mental Attitude as a Manager.
- Functional Area Policy Management.
- Horizontal and Vertical Catchball.
- Policy Management Templates.
- Policy Management Maturity Model – Level Evaluation Criteria.

IV. Advances in Strategic Planning Practices

Strategic planning documents of ten organizations were analyzed from an *advances in strategic planning* perspective. Multiple countries and industries were represented in the sample and the organizations varied in terms of size and product/service offerings. This was not a random sample and so the generalizability of the findings is not assured or wise. The findings are more *directional*, *descriptive*, and *emergent* in nature as opposed to any *definitive truths*, *prescriptions*, or *universal laws*. Verification of the findings through the use of more rigorous research methods is necessary. What follows is the introduction and explanation of a descriptive emergent strategic planning system model, some novel strategic planning features found in the ten organizations, and surprises.

A content analysis of the strategic planning documents from the ten organizations led to the identification of seventeen *level one* categories. These categories appear as the components of the Emergent Strategic Planning System Model depicted in Figure 9. Deming (1994) defined a system as the following: “A system is a network of interdependent components that work together to try to accomplish the aim of the system. This model is descriptive and not prescriptive. However, it can be used to structure TMT thinking and conversations about strategic planning.

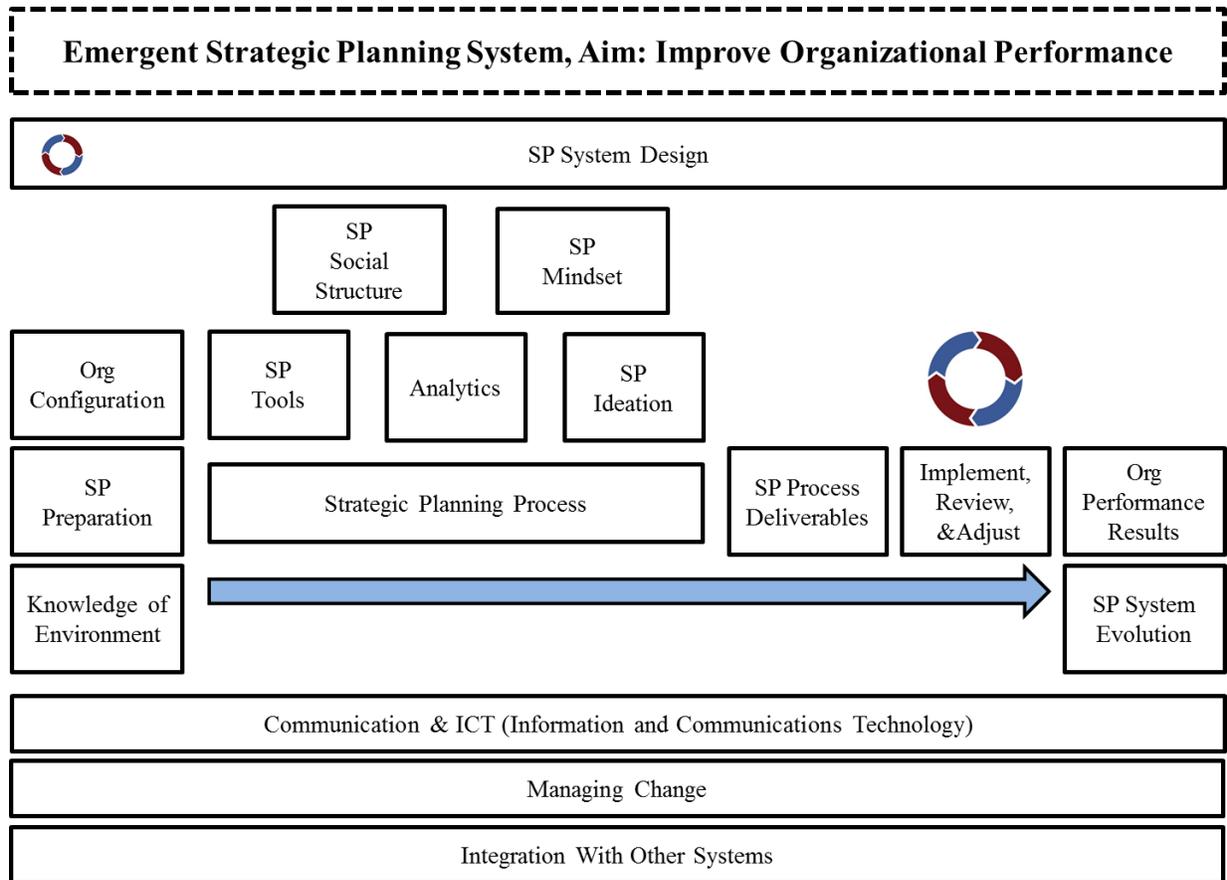


Figure 9. Descriptive Emergent Strategic Planning System Model.

SP System Design: The design (“*blueprint*”) of the strategic planning system.

Org Configuration: “Fixed” aspects of the organization which could include the organization type, organization chart, business model(s), policies, customer segments served, IT infrastructure, and product/service offerings. They are the “guard rails” for strategic planning.

SP Preparation: The preparatory work done in advance of the formal strategic planning events.

Knowledge of Environment: The knowledge about the (“*business*”) environment in advance of the formal strategic planning events.

SP Social Structure: Those who are involved in the strategic planning process along with their expected roles, accountabilities, responsibilities, and decision rights.

SP Mindset: The beliefs, assumptions, biases, aspirations, values, philosophy, vision, mood, attitudes, and interest level of the players involved in the strategic planning process.

SP Tools: Forms, templates, software, website, reports, SWOT, Force-Field, Cost/Benefit, etc.

Analytics: The collection and analysis of all types of data for decision making.

SP Ideation: The creation of new ideas during the strategic planning process.

SP Process: The formal and informal activities that lead to the creation of the strategic plan.

SP Process Deliverables: Items like the mission, vision, values, decisions, priorities, strategic objectives, strategies, action plans, project portfolio, reports, notices, and the strategic plan.

Implement, Review, & Adjust: The implementation of the strategic plan, periodic reviews, and the necessary adjustments that are made (the DSA of the PDSA Cycle).

Org Performance Results: Changes in organizational performance metrics – hopefully positive.

Communication & ICT: All of the communication between the players of the strategic planning social structure and the supporting information and communications technology.

Managing Change: Actively learning and taking action to identify and address concerns, reservations, and doubts in a positive way.

Integration with Other Systems: Integrating (i.e., Interfacing/Synchronizing) the strategic planning system with budgeting, capital expenditures, risk management, performance reviews, and leadership development systems.

SP System Evolution: Making planned periodic changes and unplanned ad hoc changes to the strategic planning system with the intent of improving it.

Novel Features Found in the Ten Organizations

Alternating Intensities: One organization conducts an intensive strategic planning process every other year (*high intensity year*) and conducts a less intensive process in *low intensity years*.

Strategy vs. Day-to-Day Operations: One organization has formal criteria for determining what goes in the strategic planning domain and what goes in the day-to-day operational domain.

Risk-Based Thinking: Several organizations seem adept at conducting risk analyses and linking the strategic planning system to the organization's risk management system.

Monthly Review Cycle: One organization has an effective monthly strategic planning review cycle where knowledge is captured and spread resulting in a relatively dynamic strategic plan.

Cross-Functional Portfolio Mechanism: Several organizations have impressive capabilities for managing cross-functional strategic planning teams as a project portfolio.

ICT: One organization is impressive in how it uses various information and communications technology (ICT) and its intranet site for strategic planning communication.

One Page: One organization reduces the key elements of its strategic plan to a one page document.

Surprises

- The importance of the *strategic planning mindset*. What people are thinking and feeling during the strategic planning process can make a difference.
- The extent to which the *strategic planning social structure* matters. It is important to keep in mind that strategic planning is a *social* process that generates *technical* content.
- The importance of *strategic planning ideation*. If you aren't creating new ideas during the strategic planning process, then don't expect significant changes from the status quo.

V. Insight Stimulating Organizations

Facebook and Toyota were selected to *stimulate insights* into *advances in strategic planning practices* because of the unique challenges and opportunities they are encountering. Facebook has become a leader in technology platform business models, social media, and the “*move fast and break things*” technology culture. It is currently under the public spotlight for a variety of reasons and its TMT is being “attacked” on multiple fronts by multiple stakeholders. Toyota—known for its excellence in manufacturing (Toyota Production System)—has been a stable and consistent organization for decades, but is now moving aggressively into connectivity, autonomous vehicles, and big data analytics. Both companies will now be discussed from a strategy perspective.

Facebook

The Facebook (now Facebook) was formed in 2004 as a small technology startup company and now is a publicly traded company (Stock Symbol = FB) with annual revenue in 2018 of over \$55 billion (Facebook, 2019). Kirkpatrick (2010) chronicled the formation and early days of the company. Facebook leaders have embraced the “*move fast and break things*” mantra which is common amongst Silicon Valley technology companies. Facebook is a technology platform business model company and its platform has at least four major *sides*: Users, Advertisers, Developers, and Partners. The company is currently addressing a number of strategic issues and Mark Zuckerberg—the CEO—has testified before congress where he suggested the company has *moved too slowly* on some of the issues his company is facing and that Facebook needs *to do much better*. A description of how Facebook’s TMT managed in the face of some of those challenges was described as “*delaying, denying, and deflecting*” by Frenkel *et al.* (2018).

Facebook is an interesting case study from a strategic planning perspective because of the number and complexity of strategic issues the company is facing—some of which are existential in nature in that they affect “*who we are*” and “*who do we want to become.*” These strategic issues are phrased as “*Challenging Questions*” in Figure 10.

The strategic issues Facebook is addressing are of their own timing and of varying degrees of complexity. Also, several are highly controversial. The strategic issues also seemingly affect different people (departments) in the organization. It is doubtful that a formal, deliberate, and comprehensive strategic planning process is sufficient to handle all of these strategic issues. It appears as though a more ad hoc and adaptive strategic planning system would be more appropriate to deal with the entire set of strategic issues. The logical implication is that a formal strategic planning process by itself is not sufficient for Facebook to address the strategic issues of the day. More dynamic capabilities are no doubt necessary and most likely employed by Facebook.

Facebook—in the midst of addressing these important strategic issues—is planning to introduce a new global cryptocurrency named *Libra* on its platform which has been met with much skepticism and criticism. This is an interesting example of a company that launches a big, bold, new, and novel initiative at the same time it is addressing several major strategic issues.

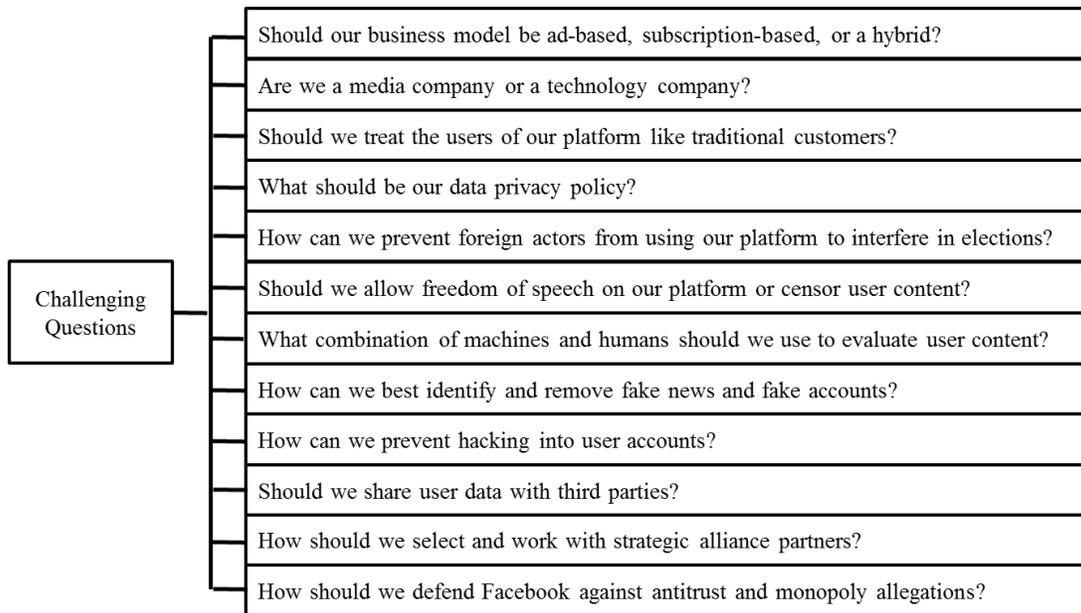


Figure 10: Challenging Questions for Facebook.

Toyota Motor Corporation

The Toyota Motor Corporation is a publicly traded company (Symbol = TM) with headquarters in Japan. Toyota has earned a strong reputation over the past few decades for producing cars of relatively high quality and reliability. The company is also well-known for its Toyota Production System—sometimes referred to as *Lean Manufacturing*—(see, e.g., Liker, 2004) and a related set of best practices like *genchi genbutsu* (*go and see*) and *kaizen* (*continuous improvement*).

Toyota uses *hoshin kanri* for goal setting according to Liker and Convis (2012): “Toyota’s approach to the universal challenge of coordinated, directed action across the corporation is *hoshin kanri*. Literally translated, *hoshin* means ‘compass,’ or ‘pointing the direction,’ while *kanri* means ‘management’ or ‘control.’ *Hoshin* is the term used for the annual plans and goals up and down the company. *Hoshin kanri* is the process of setting goals and targets and, most important, the concrete plans for reaching those targets.” Toyota never seems content. The current CEO—Akio Toyoda who is the grandson of the founder of Toyota Motors—aims to *transform the company* (Toyota, 2018). Toyota strives to become even more competitive in the long-term (Toyota, 2018): “Toyota is stepping up its competitiveness by making ever-better cars while making a strategic shift toward electrification, information, and intelligence to advance initiatives aimed at expanding future mobility value.” The aim is for *waku-doki* which means *excitement and exhilaration that wows customers* (Toyota, 2017). Toyota has developed a *Connected Strategy* consisting of *Three Arrows* which is depicted in Figure 11.

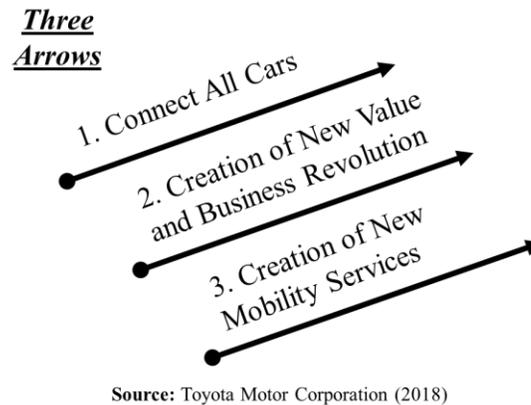


Figure 11. Toyota’s Connected Strategy as Three Arrows.

Toyota collaborated with Microsoft in the establishment of the Toyota Big Data Center (TBDC) in California. Big data will play an important role for Toyota in the future (Toyota, 2017): “Big data collected from cars will enable a wide range of new mobility services, such as accident and breakdown prediction, the generation of dynamic maps using probe data (vehicle tracking information generated using GPS), and agent functions to help users drive safely and comfortably.” Toyota ultimately envisions providing more information-based value for customers (Toyota, 2017): “As the Internet of Things (IoT) develops, cars are increasingly connected to information networks, enabling consumers to enjoy a variety of new services. Connected technologies have the potential to create new value and services by creating new models of use and new roles for cars. In particular, big data collected from connected cars will be put to use in a wide range of services and businesses. As such, connected platforms that encompass information infrastructure will become extremely important business platforms for automakers.”

Toyota’s challenge is to maintain its manufacturing strength while moving aggressively on technology and big data analytics. Strategic planning at Toyota will no doubt involve extensive ideation (innovation) as Toyota (1) adopts new technology, (2) partners with other organizations, and (3) strives to deliver information-based customer value through the use of big data analytics. It will be interesting years from now to see how Toyota’s strategic planning process evolved and what magnitude of organizational performance improvement it achieved.

VI. Emergent Themes

Ten emergent themes were identified from a synthesis of the findings from the strategic planning research, literature, and practices. These are depicted in Figure 12 and will now be described in the form of practitioner-oriented statements which are more descriptive in nature.

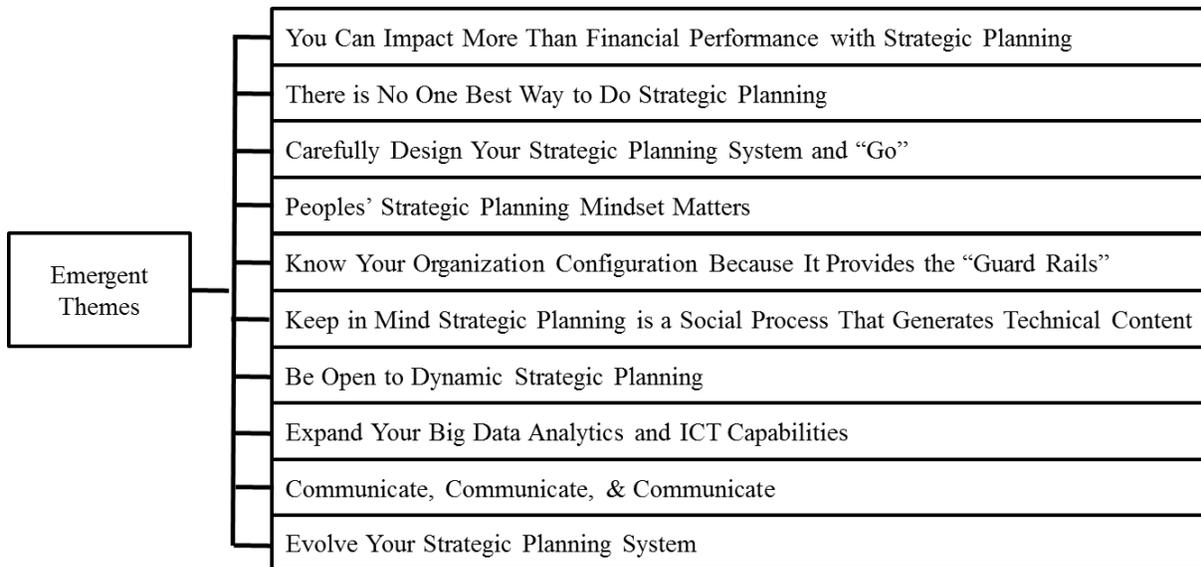


Figure 12. Ten Emergent Strategic Planning Themes.

You Can Impact More Than Financial Performance with Strategic Planning: Many organizations are routinely using strategic planning to make dramatic improvements in non-financial performance categories like Safety, Environment, Diversity, Quality, and Innovation.

There is No One Best Way to do Strategic Planning: Strategic planning practices vary and there are few universally accepted global standards. You can create your own strategic planning system.

Carefully Design Your Strategic Planning System & “Go”: Strategic planning begins with the design of the strategic planning system which is either (1) copied from someone else or (2) custom designed. The key is to recognize the importance of design, design your system, and start.

Peoples’ Strategic Planning Mindset Matters: Strategic planning is a social process and so what people are thinking affects strategic planning process execution and organizational performance results. This includes the beliefs, assumptions, biases, aspirations, values, philosophy, vision, mood, attitudes, and interest level of the players involved in the strategic planning process.

Know Your Organization Configuration Because It Provides the “Guard Rails”: Those items that are *fixed*—like the organization type, organization chart, business model(s), policies, customer segments served, IT infrastructure, and product/service offerings.

Keep in Mind Strategic Planning is a Social Process that Generates Technical Content: Strategic planning has both a *social* system and *technical* system dimension. They individually—and in combination—can impact organizational performance improvement.

Be Open to Dynamic Strategic Planning: Some organizations are reducing the time spent on formal strategic planning activities and increasing the flexibility/adaptability of the process through learning cycles (monthly PDSA Cycle) and rapid response capabilities. Things change – you can shape future events (deliberate planning) and respond effectively (emergent planning).

Expand Your Big Data Analytics and ICT Capabilities: The clear global trend is towards more data, data processing and data storage combined with an increased use of the internet of things, mobile devices, Software as a Service, and the cloud. Some organizations will be left behind.

Communicate, Communicate, & Communicate: You should assure that there is adequate communication between the members of the strategic planning social structure in the context of input, feedback, cooperation, coordination, collaboration, and alignment.

Evolve Your Strategic Planning System: Your strategic planning system can improve every year if you evaluate its effectiveness through a learning cycle and modify the system as appropriate.

Scott (1992) described three system views of organizations: Rational, Natural, and Open. The rational-analytical model as an explanatory model for strategic planning appears consistent with the **Rational Systems** view of organizations described by Scott (1992): “Organizations are collectivities oriented to the pursuit of relatively specific goals and exhibiting relatively highly formalized social structures.” The emergence of social networks and platform organizations may necessitate a **Natural Systems** view of the organization (Scott, 1992): “Organizations are collectivities whose participants share a common interest in the survival of the system and who engage in collective activities, informally structured, to secure this end.” Because of the rapid pace of change perhaps an **Open Systems** view is necessary (Scott, 1992): “Organizations are systems of interdependent activities linking shifting coalitions of participants; the systems are embedded in—dependent on continuing exchanges with and constituted by—the environments in which they operate.” A social structure conducts strategic planning activities to produce a strategic plan that is implemented, periodically reviewed, and adjusted as necessary. All three views—Rational, Natural, and Open—appear to be relevant and worth considering when designing the SP system.

VII. Closing Comments

Strategic Planning continues to survive and prosper as a formal mechanism to improve organizational performance. There is ample evidence to suggest that it has directly impacted organizational performance metrics in some organizations and that it has also focused organizational attention, increased alignment, enhanced coordination, and stimulated employee engagement. However, it is not a panacea and it is neither necessary nor sufficient for organizational success. There does not appear to be *one best way* to conduct strategic planning and so each TMT must think deeply when designing its strategic planning system. Advances in the

strategic planning research, literature, and practices continue and so it is important to stay informed of new developments. Strategic planning is a social process that produces technical content and so both the social and technical aspects of the strategic planning system must be given attention. The advancement of technology business platform models and information and communications technology—which has resulted in real-time big data—increases the possibilities of what strategic planning can promise and actually accomplish. It appears that a more streamlined, dynamic model for strategic planning would be beneficial for some organizations. Best wishes as you plan the future of your organization.

Acknowledgements

I am grateful to Dr. Noriaki Kano, Dr. Hiroshi Osada, and Yukihiro Ando for sharing their Policy Management knowledge with me over the years. I am also grateful to the Japanese Society for Quality Control for appointing me to serve as member of the English Translation Working Group for the *JSQC Standard: Guidelines for Policy Management*.

References

1. Akao, Y. (Ed.), (1991), *Hoshin Kanri: Policy Deployment for Successful TQM*, Productivity Press, Cambridge, MA.
2. Andrews, K. R., (1971), *The Concept of Corporate Strategy*, Irwin, Homewood, IL.
3. Ansoff, H. I., (1984), *Implanting Strategic Management*, Prentice Hall, New York, NY.
4. Ansoff, H. I., (1965), *Corporate Strategy*, McGraw-Hill, New York, NY.
5. Barnett, W. P., (2008), *The Red Queen Among Organizations: How Competitiveness Evolves*, Princeton University Press, Princeton, NJ.
6. Barney, J. B. & Clark, D. N., (2007), *Resource-Based Theory: Creating and Sustaining Competitive Advantage*, Oxford University Press, Oxford, U.K.
7. Bower, J. L., Bartlett, C. A., Christensen, C. R., Pearson, A. E., & Andrews, K. R., (1991), *Business Policy: Text and Cases* (7th Ed.), Irwin, Homewood, IL. Note: The first edition was published in 1965.
8. Bradley, C., Hirt, M., & Smit, S., (2018), *Strategy Beyond the Hockey Stick: People, Probabilities, and Big Moves to Beat the Odds*, Wiley, Hoboken, NJ.
9. Burgelman, R. A., Floyd, S. W., Laamanen, T., Mantere, S., Vaara, E., & Whittington, R., (2018), *Strategy Processes and Practices: Dialogues and Intersections*, *Strategic Management Journal*, 39(3), PP. 531-558.
10. Carpenter, M. A., (2009), *An Executive's Primer on the Strategy of Social Networks*, Business Expert Press, New York, NY.
11. Chandler, A.D., (1962), *Strategy and Structure: Chapters in the History of the American Industrial Enterprise*, The MIT Press, Cambridge, MA
12. Collins, J. & Porras, J. I., (1994), *Built to Last: Successful Habits of Visionary Companies*, HarperBusiness, New York, NY.

13. Cusumano, M. A., Gawer, A., & Yoffie, D. B., (2019), *The Business of Platforms: Strategy in the Age of Digital Competition, Innovation, and Power*, HarperCollins, New York, NY.
14. Davenport, T. H. & Harris, J. G., (2017), *Competing on Analytics: The New Science of Winning*, Harvard Business School Press (Updated Edition), Boston, MA.
15. Deming, W. E., (1982), *Out of the Crisis*, MIT Center for Advanced Engineering Studies, Cambridge, MA.
16. Deming, W. E., (1994), *The New Economics: For Industry, Government, Education* (2nd Ed.), MIT Center for Advanced Engineering Studies, Cambridge, MA.
17. Doerr, J., (2018), *Measure What Matters: How Google, Bono, and the Gates Foundation Rock the World with OKRs*, Portfolio/Penguin, New York, NY.
18. Drucker, P. F., (1954), *The Practice of Management*, Harper & Row, New York, NY.
19. Facebook, Inc., (2019), *Facebook Annual Report*, <https://www.investor.fb.com/financials>.
20. Frenkel, S., Confessore, N., Kang, C., Rosenberg, M., & Nicas, J., (2018), *Delay, Deny and Deflect: How Facebook's Leaders Fought Through Crisis*, The New York Times, November 14, 2018.
21. Gassman, O., Frankenberger, K., & Csik, M., (2014), *The Business Model Navigator: 55 Models That Will Revolutionize Your Business*, Pearson, Harlow, U.K.
22. Gelles, D. & Yaffe-Bellany, D., (2019), *Shareholder Value is No Longer Everything, Top C.E.O.s Say*, The New York Times, August 19, 2019.
23. Griffith, S. B., (1963), *Sun Tzu: The Art of War*, Oxford University Press, London, U.K.
24. Gupta, S., (2018), *Driving Digital Strategy: A Guide to Reimagining Your Business*, Harvard Business Review Press, Boston, MA.
25. Hamel, G. & Prahalad, C. K., (1989), *Strategic Intent*, Harvard Business Review, May-June of 1989, PP. 63-76.
26. Henderson, B. D., (1984), *The Logic of Business Strategy*, Ballinger Publishing Company, Pensacola, FL.
27. Ishikawa, K., (1990), *Introduction to Quality Control*, 3A Corporation, Tokyo, Japan.
28. Japanese Society for Quality Control (JSQC), (2017), *JSQC Standard: Guidelines for Policy Management, JSQC-Std 33-001 (E) : 2017* (English version), www.jsqc.org/en.
29. Kaplan, R. S. & Norton, D. P., (1992), *The Balanced Scorecard: Measures That Drive Performance*, Harvard Business Review, 70(1), PP. 71-79.
30. Kim, C. W. & Mauborgne, R., (2005), *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant*, Harvard Business School Press, Boston, MA.
31. Kirkpatrick, D., (2010), *The Facebook Effect: The Inside Story of the Company That Is Connecting the World*, Simon & Schuster Paperbacks, New York, NY.
32. Kono, T., (1992), *Long-Range Planning of Japanese Corporations*, Walter de Gruyter & Company, Berlin.
33. Lafley, A. G. & Martin, R. L., (2013), *Playing to Win: How Strategy Really Works*, Harvard Business School Press, Boston, MA.

34. Liedtke, C. A., (2012), *The Application of Policy Deployment in Indian Companies*, Paper Presented at the Asian Network for Quality Congress 2012 Hong Kong, August 1, 2012, Strategic Improvement Systems, Excelsior, MN, www.strategicimprovementsystems.com.
35. Liedtke, C. A., (2017), *Big Data in Hoshin Kanri*, Paper Presented at the 15th Asian Network for Quality Congress, Kathmandu, Nepal, September 20, 2017, Strategic Improvement Systems, Excelsior, MN, www.strategicimprovementsystems.com.
36. Liker, J. K., (2004), *The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer*, McGraw-Hill, New York, NY.
37. Liker, J. K. & Convis, G. L., (2012), *The Toyota Way to Lean Leadership: Achieving and Sustaining Excellence Through Leadership Development*, McGraw Hill, New York, NY.
38. Makadok, R., Burton, R., & Barney, J., (2018), *A Practical Guide for Making Theory Contributions in Strategic Management*, Strategic Management Journal, 39(6), PP. 1530-1545.
39. Marr, B., (2019), *Artificial Intelligence in Practice: How 50 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results*, John Wiley & Sons, West Sussex, U.K.
40. Marr, B., (2017), *Data Strategy: How to Profit from a World of Big Data, Analytics and the Internet of Things*, Kogan Page, London, U.K.
41. Miller, C. C. & Cardinal, L. B., (1994), *Strategic Planning and Firm Performance: A Synthesis of More Than Two Decades of Research*, Academy of Management Journal, 37, PP. 1649-1665.
42. Mintzberg, H., (1994), *The Rise and Fall of Strategic Planning*, The Free Press, New York, NY.
43. Mintzberg, H. & Waters, J. A., (1985), *Of Strategies, Deliberate and Emergent*, Strategic Management Journal, 6(3), PP. 257-272.
44. Mirabeau, L., Maguire, S., & Hardy, C., (2018), *Bridging Practice and Process Research to Study Transient Manifestations of Strategy*, Strategic Management Journal, 39(3), PP. 582-605.
45. Moore, J. I., (2001), *Writers on Strategy and Strategic Management* (2nd Ed.), Penguin Books, London, U.K. Note: The first edition was published in 1992.
46. Nadella, S., (2017), *Hit Refresh: The Quest to Rediscover Microsoft's Soul and Imagine a Better Future for Everyone*, HarperCollins Publishers, New York, NY.
47. Ohmae, K., (1982), *The Mind of the Strategist: Business Planning for Competitive Advantage*, Penguin Books, New York, NY.
48. Osada, H., (1998), *Strategic Management By Policy in Total Quality Management*, Strategic Change, 7, PP. 277-287.
49. Porter, M. E., (1980), *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, The Free Press, New York, NY.
50. Porter, M. E., (1985), *Competitive Advantage: Creating and Sustaining Superior Performance*, The Free Press, New York, NY.

51. Porter, M. E. & Millar, V. A., (1985), *How Information Gives You Competitive Advantage*, Harvard Business Review, 63(4), PP. 149-160.
52. Rumelt, R. P., (2011), *Good Strategy/Bad Strategy: The Difference and Why It Matters*, Crown Business, New York, NY.
53. Schleh, E.C., (1955), *Successful Executive Action*, Prentice-Hall, Englewood Cliffs, NJ.
54. Schwab, K., (2016), *The Fourth Industrial Revolution*, Currency, New York, NY.
55. Scott, W. R., (1992), *Organizations: Rational, Natural, and Open Systems* (3rd Ed.), Prentice-Hall, Englewood Cliffs, NJ. Note: The first edition was published in 1981.
56. Steiner, G. A., (1979), *Strategic Planning: What Every Manager Must Know*, The Free Press, New York, NY.
57. Strategic Management Society, (2018), *Annual Report 2018*, Strategic Management Society, Chicago, IL.
58. Toyota Motor Corporation, (2017), *Toyota Annual Report 2017*, <https://www.Toyota-global.com/investors>.
59. Toyota Motor Corporation, (2018), *Toyota Annual Report 2018*, <https://www.Toyota-global.com/investors>.
60. Wolf, C. & Floyd, S. W., (2017), *Strategic Planning Research: Toward a Theory-Driven Agenda*, Journal of Management, 43(6), July 2017, PP. 1754-1788.



Strategic Improvement Systems



Author Information

Charles A. Liedtke, Ph.D. is the founder and principal owner of Strategic Improvement Systems, LLC, a management consulting company that assists senior executives in improving organizational performance from a strategic perspective. Charles conducts research, consults, and conducts training on *Strategy, Quality, Analytics, Improvement, and Innovation*. He has worked with organizations worldwide on strategic improvement initiatives including Fortune 500 companies, privately-held companies, health care organizations, not-for-profit organizations, and government entities. His most recent research was on *Quality, Analytics, and Big Data; Big Data in Hoshin Kanri; and Information-Based Customer Value Creation*.

Charles earned a Ph.D. in Business—Operations and Information Management, a Ph.D. Minor in Statistics, and an MBA from the University of Wisconsin-Madison. He also earned an M.S. degree in Statistics from Iowa State University and a B.S. degree in Economics from South Dakota State University.

Contact Information

Email: charles@sisliedtke.com

Office Phone: 952-380-0778

Website: www.strategicimprovementsystems.com