

Knowledge-Based View of Strategy

La Visión de la Estrategia basada en el
Conocimiento

68



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I. INTRODUCTION

Knowledge creation fuels innovation. This was the central message of *The Knowledge-Creating Company* book Ikujiro Nonaka and I published in 1995, when both of us were at Hitotsubashi University. This book presented a theory on how new knowledge is created through an interactive process known as SECI (Socialization, Externalization, Combination, Internalization: see **Exhibit 1**). We argued that this knowledge-creating process, which came to be known as the SECI model, holds the key to understanding what brings about continuous innovation in firms.

Jiro Nonaka and I are now writing a book that extends our thinking into the field of strategy. We hope to publish this book by 2015, which will mark the twentieth anniversary of the publication of *The Knowledge-Creating Company* book. Jiro Nonaka is still at Hitotsubashi University, but I moved back to the Harvard Business School in 2010 and started teaching a course called Knowledge-Based Strategy within the Strategy Unit of the School. The core content of our new book will be based on what I am currently teaching in this course. This paper provides a preview of our current thinking on the knowledge-based view of strategy.

The knowledge-based view of strategy differs from other schools of thought in strategy in its singular focus on knowledge as the driver of strategy. We define knowledge as a human, dynamic and social process of justifying personal belief towards the truth. Our definition of knowledge differs from the traditional Greek definition of knowledge as justified true belief, which suggests that knowledge is something



EXECUTIVE SUMMARY

Strategy is about future creation. Firms differ not just because they have different value chains and activity systems or different resources and competencies, but because they envision different futures. They differ because people in charge of formulating and implementing strategy have their own visions of the firm's future, which are different from those of other firms. This paper provides a preview of the current thinking on the knowledge-based view of strategy. This view recognizes that an essential feature of strategy is to interpret the particular situation at hand and continuously create the future within the social context. The knowledge-based view of strategy differs from other schools of thought in strategy in its singular focus on knowledge as the driver of strategy. This paper analyses how the knowledge-based view of strategy complements the traditional schools of strategy by injecting new thinking along this three dimensions: putting humans at the center of strategy, treating strategy as a dynamic process, and having a social agenda.

RESUMEN DEL ARTÍCULO

La estrategia hace referencia a la creación futura. Las empresas difieren unas de otras no sólo porque tienen cadenas de valor o sistemas de actividad distintos o porque sus recursos y competencias son diferentes, sino también porque visualizan diferentes futuros. Son distintas porque las personas encargadas de formular e implantar la estrategia tienen sus propias visiones del futuro de la empresa, las cuales son diferentes de una empresa a otra. Este artículo proporciona una previsión del pensamiento actual de la visión de la estrategia basada en el conocimiento. Esta visión reconoce que una característica esencial de la empresa es interpretar la situación actual y crear continuamente el futuro dentro del contexto social. La visión de la estrategia basada en el conocimiento difiere de otras escuelas de pensamiento en estrategia por su singular preocupación por el conocimiento como motor para la estrategia. Este trabajo analiza cómo la visión de la estrategia basada en el conocimiento complementa a las escuelas tradicionales de estrategia por su inyección de nuevos pensamientos sobre tres dimensiones: las personas como centro de la estrategia, la consideración de la estrategia como un proceso dinámico, y por tener una agenda social.

that is objective, absolute, and context-free. According to our thinking, strategy is created and executed by a subjective, interactive process driven by human beings based on their beliefs and “here-and-now” judgments and actions taken within particular contexts.

“Why do firms differ?” This question has been raised by a number of researchers in the field of strategy. Our answer to this question also sets the knowledge-based view of strategy (KBS) apart from other schools of thought in strategy: firms differ not just because they have different value chains and activity systems or different resources and competencies, but because they envision different futures. To elaborate, they differ because people in charge of formulating and implementing strategy have their own visions of the firm’s future, which are different from those of other firms. In this sense, strategy is about future creation.

This view echoes what Peter Drucker pointed out: we cannot predict the future, but we can *make* the future. *Making* the future requires continuous innovation. The essential feature of innovation, according to Schumpeter, requires a new combination which disturbs the existing static equilibrium. In the eyes of Hayek, a fellow Austrian, market competition is a discovery process of new knowledge of the particular circumstances of time and space, where equilibrium does not exist. Following the intellectual tradition of what we call the Austrian School of thinking, KBS recognizes that an essential feature of strategy is to interpret the particular situation at hand and continuously create the future within the social context.

Three key words – human, dynamic, and social – were included in our definition of knowledge above. They were used to elucidate the following three key features of knowledge: (1) knowledge is created through *human* interactions, (2) knowledge is *dynamic* in its very nature since it is required to create the future but becomes obsolete the minute it is created, and (3) knowledge has a *social* agenda of guiding the firm to do what is good, what is right, and what is just for the firm and for society. The knowledge-based view of strategy complements the traditional schools of strategy by injecting new thinking along the three dimensions described below: (1) putting humans at the center of strategy, (2) treating strategy as a dynamic process, and (3) having a social agenda.

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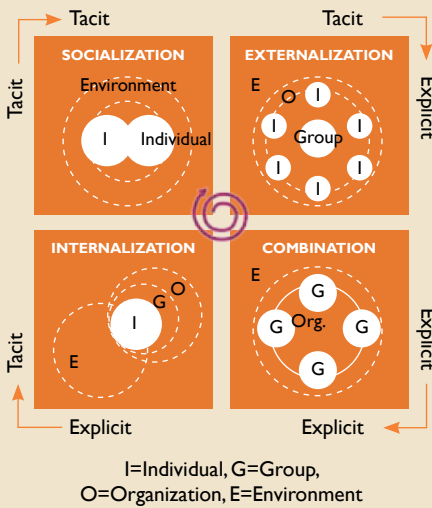
Exhibit 1. SECI (Socialization, Externalization, Combination, Internalization)

Sharing and creating tacit knowledge through direct experience (Empathizing)

1. Perceiving reality as it is from activities
2. Empathizing, resonating, recognizing and foreseeing
3. Transferring tacit knowledge

Articulating tacit knowledge through dialogue and reflection (Conceptualizing)

4. Articulating tacit knowledge using symbolic language
5. Translating tacit knowledge into a concept or prototype



Learning and acquiring new tacit knowledge in practice (Practicing)

9. Embodying explicit knowledge through experimenting, hypothesis testing and reflection
10. Contemplating in action

Systemizing and applying explicit knowledge and information (Modeling)

6. Creating relationship and hypothesis among concepts; analyzing, modeling
7. Communicating and sharing explicit knowledge
8. Editing and systemizing explicit knowledge

KEY WORDS

Knowledge-based view of strategy, knowledge, human resources, context

PALABRAS CLAVE

Visión de la estrategia basada en el conocimiento, conocimiento, recursos humanos, contexto

2. HUMANS AT THE CENTER OF STRATEGY

The most prominent feature of knowledge, compared with physical resources and information, is that it is born out of human interaction. Knowledge is created by people in their interactions with each other and the environment. Hence, to understand knowledge, we must first understand the interactive process from which knowledge emerges among human beings.

Our view of knowledge is based on Michael Polanyi's concept of knowledge. He argues that human beings obtain new knowledge

through their individual, active, and subjective shaping and integration of experience (which he calls tacit knowing). The power of tacit knowing is exemplified by a metaphor – when on a bicycle, we can instantly synthesize the handlebars, force on the pedals, angle of the body and the bicycle, response of the muscle, and the view in front. The dominant theories of the firm, however, have tended to neglect human subjectivity. This neglect of the human factor has resulted in management theories that treat human beings as another resource, like land and capital. They fail to account for the significance of the human instinct and emotion as well as the context in the management process.

In contrast, good strategies are born from tacit knowledge, according to our thinking. Tacit knowledge is deeply rooted in an individual's actions and bodily experience, as well as in the subjective intuitions, instincts, emotions, and ideals. So, “where does strategy come from?” Steve Jobs, the late co-founder and chairman of Apple, embodied tacit knowledge and utilized it as the origin of his strategy. Walter Isaacson, the author of the book *Steve Jobs*, wrote the following obituary, entitled “The Genius of Jobs,” in *New York Times* on October 30, 2011:

His imaginative leaps were instinctive, unexpected, and at times magical. They were sparked by intuition, not analytical rigor. Trained in Zen Buddhism, Mr. Jobs came to value experiential wisdom over empirical analysis. He didn't study data or crunch numbers but like a pathfinder, he could sniff the winds and sense what lay ahead...

Mr. Jobs could be petulant and unkind in dealing with other people, which caused some to think he lacked basic emotional awareness. In fact, it was the opposite. He could size people up, understand their inner thoughts, cajole them, intimidate them, target their deepest vulnerabilities, and delight them at will. He knew, intuitively, how to create products that pleased, interfaces that were friendly, and marketing messages that were enticing.

In the SECI model, the two types of knowledge – tacit and explicit – interact and interchange with each other through the creative activities of human beings. Of the two, too many managers in the business world tend to rely on explicit knowledge, since it can be easily codified, measured, and generalized. Explicit knowledge is objective and rational knowledge that can be expressed in words, numbers, data, sound, picture, formula, or manual. Dependence



only on explicit knowledge prevents managers from making context-specific judgments and decisions, or the sniff of the winds as Isaacson puts it. Since all social phenomena – including business – are context-specific, analyzing them is meaningless unless one considers people’s goals, values, and beliefs along with the power relationships among them.

Knowledge, which resides in an individual, is amplified into organizational knowledge through an interactive process. Organizational knowledge is created through the synthesis of different views of different people in an organization. In KBS thinking, top management, middle managers, and front-line employees all play a part in creating new knowledge. Top management people create the vision or dream and are constantly in search of the “ideal”. Front-line employees are immersed in the day-to-day details of “reality.” It is the middle managers who serve as the bridge between the visionary ideals of the top and the often chaotic reality of those in the front line of business and solve the contradiction through a process called “middle-up-down” management.

The middle-up-down management process highlighted the important role middle managers play in the knowledge creation process. They resolve the contradictions between the “what should be” mindset of top management and the “what is” mindset of the front-line workers by creating mid-range concepts. In this sense, middle managers are the “engineers” of the knowledge creation process. They remake reality according to the company’s vision (“what kind of a company do we want to become in the future”). As such, they “engineer” knowledge needed for the future. And since strategy is about future creation, as we mentioned at the outset, middle managers play an important role in formulating and executing strategy as well. This view is in stark contrast to other schools of thought in strategy, which oftentimes ignore them, or worse, treat them as an unnecessary evil.

Since the *Knowledge-Creating Company* book was written, Jiro Nonaka and I have come to realize the important role “*ba*” plays in the knowledge creation process. *Ba* – which is translated as place, space, or field – refers to the context in which human beings interact with each other. People participating in a *ba* share their subjective views, build “here and now” relationships, and try to create new meaning. Think of a pub as an informal example of a *ba*. Here, strangers talk casually about their immediate concerns or problems, sometimes triggering insights or solutions. They see themselves in

relation to others and try to understand each other's views and values inter-subjectively. In essence, *ba* is a shared context-in-motion, with members coming and going, relationships changing, and contexts shifting over time.

Ba can be both physical and virtual. A physical *ba* may take place in a variety of face-to-face settings, such as a training program, a project meeting, an ad hoc study group, a conference, an offsite retreat, a convention, a team-building exercise session, a company-sponsored family or sport event, an informal hobby group, a smoking room, a café or canteen, a karaoke room, or a pub. *Ba* can also take place in virtual settings, such as a video-conference or tele-conference, a social network system, an on-line game, a groupware, or a learning management system.

To create new knowledge, it is necessary to connect various *ba* on a constant basis and link the knowledge created in them, transcending boundaries. An organization in KBS thinking is perceived as a multi-layered network of diverse *ba* intertwined with each other. Ideally, the organizational boundaries across various *ba* should be permeable, with members coming and going and forming self-organizing teams. Since we believe that strategy must be embedded in the organization, we cannot separate out how an organization is structured from strategy. They are linked to each other.

3. STRATEGY AS A DYNAMIC PROCESS

Individuals interact with each other to transcend their boundaries and realize their vision of the future. As a result, they change themselves and others, the organization, and the environment. KBS is characterized by the active creation of change rather than the passive reaction to change. It is based on the belief that firms can shape its environment while they are being shaped by it.

The future to be created by KBS will not be a mere extension of the present. Discontinuity will be the only constant. Everything will be in continuous "flow", including industry boundaries and resource requirements. In such a world, we need managers at all levels to make judgments knowing that everything is contextual, make decisions knowing that everything is changing, and take actions knowing that everything depends on doing so in a timely fashion.

Sam Walton, the legendary founder of Wal-Mart, and Toshifumi Suzuki, the *chuukou-no-so* or a "restorer who came in mid-stream and acted like a founder" of Seven-Eleven Japan, share one common

trait. They both believe that everything is in a flux, that there could be no fixed way of doing business. A close friend of Sam Walton recalled the many occasions when Sam was asked to reveal the secret of his success, but Sam would tell a different secret every time. Indeed, his friends cited Sam's agility as one of his most endearing traits. People close to him chuckled that "Change" was his middle name.

Toshifumi Suzuki also emphasized flexible thinking. He believed that there was no sense in trying to create a long-term plan under conditions of short-term change. He warned employees not to dwell on past success because they might overlook opportunities that required a new way of thinking. He did not advocate ignoring past experience, but rather, making experience the raw material to generate new hypotheses that suited the "here-and-now" situation. He constantly told his front-line employees to place orders for items that they believed will sell in the future, not items that sold well in the past.

Jiro Nonaka and I used the "rugby" metaphor to describe this agile world, using new product development as a case in point. As in rugby, the ball gets passed around within the team as it moves up and down the field (ba) as a unit. The ball gets kicked around when the players pose for the "scrum". The ball does not move in any defined or structured manner; ball movement is unpredictable and the players have to make judgments on the spot ("here and now").

In addition to being agile, KBS assumes that the real world is filled with contradictions, opposites, and paradoxes. KBS synthesizes them through the use of dialectic thinking derived from Hegel. This dynamic process is composed of three stages of development: a thesis, which gives rise to its reaction, an antithesis, which contradicts or negates the thesis, and the tension between the two being resolved by means of a synthesis. Over time, however, synthesis eventually turns into becoming the thesis, which forces another round of thesis-antithesis-synthesis resolution. This continuous process can be visualized as a spiral.

The concept of "spiral" is used to depict the dynamic nature of KBS at different levels. At the epistemological level, new knowledge is created by a dynamic interaction of tacit and explicit knowledge through the SECI spiral. At the ontological level, knowledge developed at the individual level is transformed into knowledge at the group, organizational, and community levels. The truly dynamic nature of KBS can be depicted as the synthesis of these two spirals over time, in which the interaction between tacit and explicit knowledge is



amplified as it moves up the ontological level. This dynamic process fuels innovation.

The more turbulent the times, the more contradictions there are. As a result, corporate success has never been more fragile. Only a few companies have proven themselves capable of changing as fast as the environment around them and dealing with complexities surrounding them. One of the main reasons why companies fail today is their tendency to kill contradictions, opposites, and paradoxes by sticking to old routines created by their past success.

Toyota faced two horrific setbacks in recent years: the first being the massive recall in the 2009-2010 period ignited by accidents caused by cars that ran out of control and couldn't be braked to a stop in the U.S., and the second being the production disruption caused by the March 11, 2011 earthquake and tsunami in the Tohoku region. The company has recovered from these crises relatively unscathed, partly because it was able to discard old routines (e.g., shrinking the board by half and taking out layers of management) and to connect emotionally with customers through its products.

Toyota was also able to get back on track in a short period of time because of its ability to harness the negatives as a wake-up call to energize itself. Facing contradictions, opposites, and paradoxes have always been a way of life within Toyota. The company is known for moving forward gradually while also advancing in big leaps. It is frugal with its resources while spending extravagantly on people and projects. It is both efficient and redundant. It cultivates an environment of stability as well as paranoia. It is hierarchical and bureaucratic, but encourages dissent. It demands that communication be simplified while building complex communication networks that are analog in nature. Being accustomed to dialectic thinking came in handy for the company during times of crisis.

4. SOCIAL AGENDA OF STRATEGY

A firm creates value to society by asking and answering on a daily operational basis the question, "Why do we exist?" The answer to this question sets KBS apart from other schools of thought. According to KBS thinking, firms exist to improve the human condition and to create a better future. A firm creates a better future not only by maximizing profit for shareholders, but also by serving the common good of its employees, its customers, its suppliers and other stakeholders as well as the society at large, including the environment.



The environment is in the minds of the founding fathers of Shimano, the bicycle components company with a high worldwide share in both the road bike and mountain bike segments, whose mission statement reads as follows: To promote health and happiness through the enjoyment of nature and the world around us. The customer is what Walt Disney had in mind when he first wrote down the company's mission back in the 1920s: Create universal, timeless family entertainment. The employee is also what Marvin Bower, a *chuukou-no-so* of McKinsey & Company, had in mind when he established Our Mission over two decades ago as: To help our clients make distinctive, lasting, and substantial improvements in performance and to build a great Firm that attracts, develops, excites, and retails exceptional people. Society at large is what Tadashi Yanai, the founder and CEO of Fast Retailing that operates UNIQLO stores, has in mind with the following mission statement: Changing clothes, changing conventional wisdom, changing the world.

According to the KBS view, the firm has to have its own future-building vision on how it would like to be in the future and how it would like to change society in the future. This vision should not simply be an extension of the present, but be closer to a leap towards fulfilling a dream or an ideal. A vision holds meaning when people in top management put their heart and soul into creating one that is unique to the firm; also, when they repeatedly share their vision with people inside and outside the firm. Inside the firm, the use of a formal system of apprenticeship is useful in sharing their experiences, contexts, and time with employees at all levels. The use of stories and metaphors is also useful in expressing the difficult-to-articulate essence of that vision.

A firm also creates value to society by asking and answering on a daily basis another question, "What is good?" We draw on Aristotle's concept of *phronesis* to show how values, aesthetics, and ethics are an integral part of strategy. *Phronesis*, which is commonly known as practical wisdom or prudence, can be interpreted as the higher-order tacit knowledge acquired from practical experience that enables humans to make prudent judgments and take timely action appropriate to a particular context and situation, guided by values, aesthetics, and ethics. Aristotle identified two other forms of knowledge: *episteme* and *techne*. In contrast to *episteme* (universally valid, scientific knowledge or "know-why") and to *techne* (skilled-based technical "know-how"), *phronesis* is "know-what-should-be-done" for the common good.

The embracing of *phronesis* into strategy allows the firm to create another spiral at the teleological (purpose) level. *Phronesis* spirals up the synthesis of tacit and explicit knowledge by guiding the firm to do what is good, what is right, and what is just for the firm and for society. Doing so elevates strategy from something objective, analytical, and profit-driven to something akin to a calling from on high.

When Honda was developing the CVCC engine, a low-emission engine that would meet a revised Clean Air Act in the U.S. in 1970, the founder of the company Soichiro Honda said that it would put the car company in a position to beat out the Big Three, who opposed the new law. But Honda engineers objected to Soichiro, suggesting that they were developing the engine to make the world a better place by reducing harmful emissions. They went to say that they were doing it for their children. As the story goes, Soichiro was so ashamed of himself when he heard this that he decided it was time for him to retire.

5. IN CONCLUSION

In the knowledge-based view of strategy, firms differ because they envision different futures. The practical wisdom to be drawn out of this paper is three-fold:

1. We know that we cannot predict what the future holds, but we know that humans can *make* the future
2. We know that discontinuity is the only constant awaiting us in the future, but we know that we can proactively and dynamically embrace it
3. We know that the narrow view of capitalism – which pits business against society – has not worked, but we know that the future to *make* must be based on a new form of capitalism based on *phronesis* – which is focused on creating both economic value and social value.

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NOTES

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