ON USE OF LINGUISTIC AND QUALITATIVE GAMES IN FORMULATION OF PLATFORM-BUSINESS STRATEGY

Motonari Tanabu
Yokohama National University
tanabu@ynu.ac.jp

Ryo Sato
Yokohama National University
rsato@ynu.ac.jp

ABSTRACT

We propose a way to formulate corporate strategy in the light of platform. A type of linguistic and qualitative game has been defined and developed. Based on class experience of the game played by graduate students, we discuss the effectiveness and possibility/limits.

Keywords: business model formulation; linguistic and qualitative game; platform strategy
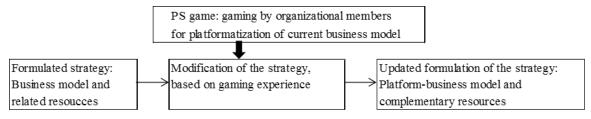
EXTENDED ABSTRACT

The motivation of this research is as follows. Today's manufactures are struggling for survival. The shorter lifecycle and commoditization of their products explains the reason. Once a product become accepted by the market, others soon develop similar product with low price. No manufactures cannot find a good position in, for instance, PC manufacturing. Because everyone in the world virtually can assemble it, if they can find components. In such commoditization environment, new corporate strategy is called for.

Two strategy theories draw our interest. They are platform and dynamic capability strategy theories. The former is important and fascinating because businesses on platforms are successful in the world, and the growth of users of a platform has positive feedback mechanism and then it works as an engine of the businesses expanding (Eisenman et.al(2006), Evans et.al. (2008), Gawar and Cusumano(2002), and Chesbrough(2011)). Examples are many: Online game companies, TSMC (Taiwan Semiconductor Manufacturing Company), credit cards, sea containers, and so on. The dynamic capability theory focuses on corporate strategy for change of resources to make competitive advantage in fast changing business environment (Teece et al (1997) and Teece(2009)). The theory points out that a dynamic strategy formulation process consists of three phases such as sensing, seizing and reconfiguring. In the case of platform business, continual participation of new users and finding and co-evolution with complementary companies will lead the business to sustainable competitive advance.

Mathematical modeling of logical structure of corporate strategy formulation is not only impossible but impractical. Because strategy is usually expressed in natural language and contains personal recognition and hope of doing new business. In other words, a strategy is an expression of "faith" in business and world (Teece(2009) and Tanabu et al(2014)). Even if a strategy does not have well-defined logical completeness, it is quite important. Therefore, a strategy needs to be expressed in a communicative way, and be evaluated by synthetic judgment. It cannot be analytic. By using natural language in a structured way, like CANVAS business modeling method proposed by Osterwalder and Pigneur(2010), people in an organization can use their own personal knowledge based on experience, prediction of possible result, and risk. Since we can not get any data on a new business before we start, and since there might be huge possible events that disallow to find meaningful historical development of the new business, the effectiveness of statistical methods is quite limited. In such a case, gaming is used to pull experienced people's synthetic wisdom together (Greenwald and Kahn (2007)).

In this research, we have developed and used a linguistic and qualitative game for corporate strategy formulation. It is called Platform Strategy game (PS game, for short). The game uses a decision table for internal state transition, the input variables are selection from a set of natural sentences on dynamic capability and platform strategy theory, and the structure is not complicated. The goal of using PS game is to help people sense new partner user groups, business partners, and platform-business opportunities in some ways. In playing PS game, players are strongly recommended to talk each other, ask each other, and answer each other. It would force them to be able to recognize personal bias, and possible new issue. Hopefully, it expands players' view on strategic dynamism, especially, in plat-

FIGURE 1
GAMING EXPERIENCE OF PS GAME AFFECTS STRATEGY FORMULATION

form business. Figure 1 shows the situation.

In a graduate class, students first select a business scenario mainly with IoT (Internet of things) application. Then, they formulate its business model in the form of CANVAS. Also they learn some concept in platform theory, after formulation of business models. At this point, they have their business models in CANVAS. Then, they play PS game. PS game has implemented in an ASP game generator. It is called YBG (Yokohama business game environment) that serves as business game platform for more than 100 universities in Japan for many years. Though PS game is single-player game, students should make a team and play the game as a team. So, while gaming they talk each other the decision they made and why the decision seems appropriate at a stage (round) of the game. The game stops when they reached to a final state of sensing business environment. While gaming, they are asked to think about possibilities of platform business and possible business partners with the partners' merit to use the platform. After the experience of PS game, the students again consider the business model. This time, they are requested to transform the business model into platform business. After that, they make presentation how they changed the business.

We believe that PS game or its variant can effectively cultivate strategic point of view in their own organizational functions such as sales, R&D, procurement, manufacturing, IT/IS, accounting, etc. Especially, a business process has strong relation to IT/IS and IT people has strong tendency to focus on only technology, PS game can be used to IT human resource development.

The game has room for further enhancement. Since corporate strategy has loose logical connection with its corresponding business operation process, players are required to imagine suitable operation and strategy together. Synthetic judgement is not always a silver bullet, so we need to make it ease. It is one of future works.

REFERENCES

Chesbrough, Henry (2011) *OpenServices Innovation: Rethinking Your Business to Grow and Compete in a New Era*, Jossey-Bass.

Eisenmann, T.R., ParkerMarshall, G. Van Alstyne, W. (2006) "Strategies for Two-Sided Markets", *Harvard Business Review*, 84-10.

Evans D. S., Hagiu An., Schmalensee R. (2008) *Invisible Engines: How Software Platforms Drive Innovation and Transform Industries*, MIT Press.

Gawar A. and Cusumano M. (2002) *Platform Leadership: How Intel, Microsoft, and Cisco Drive Industry Innovation*, Harvard Business School Press.

Greenwald, B.C., Kahn, J. (2007) *Competition Demystified: A Radically Simplified Approach to Business Strategy*, Portfolio.

Osterwalder, A. and Pigneur, Y. (2010) *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*, Wiley.

Teece,D. (2009) *Dynamic Capabilities and Strategic Management*, Oxford Univ Press.

Teece, D., Pisano, G, and Shuen, A. (1997) "Dynamic Capabilities and Strategic Management", *Strategic Management Journal*, 18- 7. 509-533.

Tanabu, M., Sato, R, Shirai, H. (2014) "On a Linguistic and Qualitative Game and its development to Dynamic Capability Theory", *Yokohama-Keiei-Kenkyu*, 35-2, 25-44. (in Japanese)