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1.2.3 Why is it so difficult for incumbent companies to respond to innovation?

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Why are incumbent companies unable to adapt well to the environmental changes brought about by innovation?

1 Problems caused by the perception of change: Personal decision-making bias

Social psychology research has shown that, although we humans try to be rational in our intentions, our limited rationality[2] means that our decision-making is greatly influenced by the environment in which we live. Consequently, we will never be able to objectively grasp reality and make neutral decisions. Our perception of our environments and the decisions we make based on this perception are dominated by biased tendencies. This tendency toward bias in our decision-making is known as “cognitive bias.” Well-known cognitive biases include: (1) confirmation bias, (2) anchoring effect, (3) framing (i.e., defining problems), (4) the sunk cost fallacy, and (5) self-justification.

Confirmation bias is the tendency to only gather evidence that validates one’s opinion. In retrospect, it is possible to explain the inability of incumbent companies to cope with new innovations as being due to their overly optimistic attitudes and pride, which resulted in their overlooking environmental changes. However, the true cause of such situations actually stems from confirmation bias, whereby we attempt to cope with change by only gathering evidence that affirms our perception of the environment. This kind of confirmation bias can occur in a variety of ways. We underestimate the potential of new technologies, and

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2 Simon (1947)

consequently ignore them as irrelevant to our own company, because we tend to gather only the evidence that is convenient to us.

The anchoring effect is the effect whereby our decisions are influenced by an initially-defined reference point or reference points. This is one example of how the opinions of the person who starts a meeting can end up determining the direction of the entire meeting's discussion. This also happens in responses to innovation. Unlike startups that start from scratch, executives and company managers trying to realize new innovations evaluate the potential of new technologies and businesses using existing businesses as a starting point or reference point. As a result, their assessments will be unduly influenced by current technological developments, business characteristics, or market position. Another example of the anchoring effect is trying to excessively utilize one's existing strengths in developing new technologies and new businesses, even though the existing business and the new business area to be entered are not the same thing. These effects can be further exacerbated by organizational dynamics, as discussed later.

Framing (i.e., defining problems) describes the effect where, even when facing the same business problem, our decision-making varies greatly depending on the context in which that business problem is discussed. For example, it is known that respondents will respond very differently when two problems that bring about the same expected value are presented as a question of benefit (i.e., how much will be gained) or as a question of loss (i.e., how much will be lost). When the question is presented in terms of benefit, people tend to be risk averse; conversely, when the question is presented in terms of loss, people tend to be risk-seeking. Changes brought about by innovation are both an opportunity and a threat. It depends on how we define the changes that innovation brings. Therefore, depending on how the problem is defined, the potential of an innovation may not be recognized properly.

Sunk costs are the costs of past investments that are not recoverable after the fact, and are a well-known economic concept. The magnitude of this sunk cost has a significant impact on our decision making. It also impacts our striving to find a job that makes use of the experience and capabilities we have accumulated to date: as the energy, time, and monetary cost of human investment cannot be recovered in and of themselves, people try to recover it using job income that matches their investment. As mentioned earlier, unlike startups, incumbent companies possess core businesses, and they continuously invest in these core businesses to maintain their market position. Additional investments are thus made with the intention of recouping the costs invested in the business, even if it is already clear that the investment will not be sufficiently profitable in the near future. The reason for continued reinvestment in these unprofitable businesses is that decision-making is being tied to sunk costs. As a result, the need to invest in the development of new technologies and new business development is relatively neglected in favor of ongoing reinvestment in existing businesses.

Finally, as the term implies, self-justification is the tendency to interpret environmental changes in a way that is favorable to our own situation. When we find a gap between our beliefs and ideals and reality, we fall into a state of "cognitive dissonance." In order to resolve this unstable state, we create explanatory logic that interprets reality to fit our beliefs and ideals, and act accordingly. For example, when you put in a lot of effort and the results are not forthcoming, the problem is not with the amount of effort you put in or the way you put it in, but with something else. It is not because we do not recognize the signs or perceive the ominous signs in the environment surrounding incumbent companies as not relevant to our own company or as someone else's problem. Rather, the problem lies in how we interpret the signs in a way that is convenient for us.

These cognitive biases are essentially problems of environmental awareness that occur at the individual level, and are issues that relate to the ensuing biases in decision-making accompanying these issues of environmental awareness. However, these may be further amplified in the process of integrating the decisions of the individuals making such decisions into the decisions of the organization. This is the structure of the first pathology that prevents incumbent companies from properly recognizing environmental changes.

2 Problems caused by coping with change: Group dynamics

Even if the decision-making biases described above can be overcome at the individual or group level, large incumbent corporations still have challenges to overcome in terms of coping with change. If problems of perception are the primary structure that creates the first pathology, then the second structure is the pathology caused by group dynamics. This is the effect of the group dynamics that occurs when individuals operate within an organization. In management science, a situation in which a company is unable to adapt well to environmental changes is described as "organizational inertia," which refers to a situation in which a company has difficulty adapting to environmental changes brought about by innovation because it does not change itself in response.

Organizational inertia stems from low motivation to change on the one hand, and from a lack of ability on the other. In other words, organizational inertia can come from having little motivation to change, or having the motivation to change but lacking the ability or resources to do so. The inability of many incumbent companies to cope with new innovations despite having the resources and capabilities to cope with change is the result of a lack of motivation. Why is it that there is less incentive to proactively deal with change in established companies, resulting in organizational inertia?

There are three main reasons. First, there is a substitutional relationship between existing and new businesses. Obsolescence of existing technologies resulting from promoting the development of new technologies, the cannibalization of existing product lines resulting from the development of new businesses, and declining profitability and business value are all examples of the economic substitutability that occurs between new and old technologies and between new and old businesses. We refer to this as cannibalization. Organizations typically follow the idea and opinion that focusing on existing business, which is visible and certain, is more rational than focusing on new business, which is invisible and uncertain. Moreover, new businesses are often dramatically smaller in scale than existing core businesses in their initial stages, and their profit margins are often low due to the initial investment. Accordingly, the decision and actions of not venturing to do something new are "rational." This group dynamic based on economic rationality is the primary reason.

Second, there is a group dynamic that stems more from political factors than from economic rationality. Developing new technologies and promoting new businesses will not only reduce the profitability of existing businesses, but change the organizational structure, compensation system, positions within the organization, and the power structures based on it—all of which all designed to optimize existing businesses. This change will have a more significant impact on people at higher levels within the organizational hierarchy. In other words, the entry of new businesses will require a change in the existing management system, which has been optimized to suit existing businesses. As the people at the top of the organization are also at the top of the existing management system, entering a new business inevitably threatens their raison d'etre, careers, and the positions they hold within the organization. As the management team, which ought to be the starting point for change, will be the most affected by the change, they tend to exhibit the greatest resistance to that change.

Third, there are group dynamics that can be observed regardless of the organizational hierarchy, such as the managerial layer or site staff, which stem from the implicit customs and values formed through day-to-day business activities and the accumulation of those established customs and values as organizational culture. These group dynamics dictate further group-level behavior. Past decisions and events influence the company and define its future direction. We can never escape the influence of the past, as the path we have taken will shape the norms and values of what is right, appropriate, and what should be done in the organization. The explicit and implicit customs, rules, and values established within an organization are called "organizational routines." It is these established organizational routines that result in an organization's inability to adapt to its environment at the group level. As such routines are often implicit, it can be difficult for even those inside the organization to recognize their existence, making organizational routines a fundamental factor inhibiting the ability to adapt. As the size of an organization increases or the longer the experience in an existing business, so organizational routines develop that are harder to recognize and change. The less uncertain and the more stable an existing business is, the more highly developed the organizational routines will be.[3]

As such, in addition to the issue of perceptions at the individual level, the three group dynamics at the organizational level are impediments to environmental change in incumbent companies. This paper is a summary of Chapter 3 of Hitotsubashi University's Institute of Innovation Research(2017), please refer to this book for further detail.

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3 For an interesting point about how disagreements and frictions can lead us to rethink assumptions and become a source of creativity, please refer to Stark (2011).

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