

Disruptive Innovation Absorption Methodology, K³.P.I., Extension of Clayton Christensen Principles for Corporate Leaders and Its Followers

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Abstract

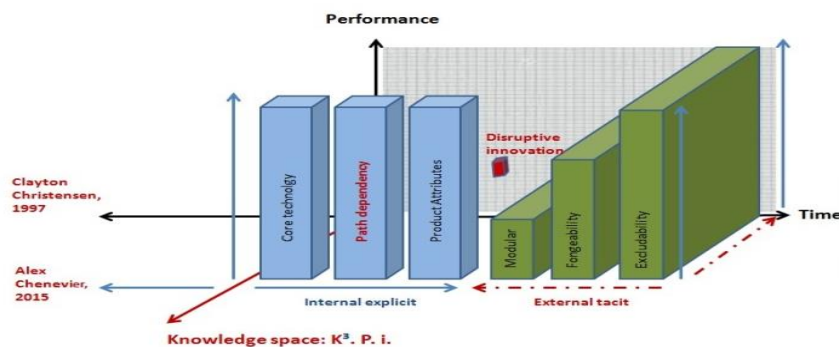


Fig. 1 Disruptive innovation methodology key³ performance indicatorSM

In *The Innovator's Dilemma*, published in 1997, Clayton Christensen – Harvard Professor – pinpointed the reasons that so many companies fail against the odds. ‘In this revolutionary bestseller, Clayton Christensen demonstrates how successful, outstanding companies can do everything “right” and yet still lose their market leadership – or even fail – as new, unexpected competitors rise and take over the market. Why? Because the inner technological capabilities of established organizations have been arguably altered/hold up by board member decisions interpretation hindered by cognitive limitations i.e. decision making heuristics of managers e.g. expertise, experiences, networks, company contract ties build upon efficiency. What is the solution? The solution is to reconcile organizations with their technological potential, legitimately available for disruptive innovation absorption, by providing on a systemic manner a workable diagnosis and absorption framework which is non-judgmental. In this paper, the author introduce its logic incl. knowledge space, path dependency and knowledge fusing, ultimately surfacing a unified model, perhaps for the first time found as definite, quantifiable, measurable and therefore applicable in business terms i.e. the scientific equation of Key Performance IndicatorSM.

Keywords: Innovation, disruptive innovation, innovation systems, absorptive capacity, strategy

1. Introduction

Despite lineage going back to when societies began engaging in barter exchange, business models have only been explicitly catapulted into public consciousness during the last decade or so. Driving factors include the emerging knowledge economy, the growth of the Internet and e-commerce, the outsourcing and off shoring of many business activities, and the restructuring of the financial services industry around the world (Teece, 2010).

Notwithstanding the legitimacy of these models, aforementioned intertwined factors have been scaling up the world economic machine to new layers of complexities. Specifically, organizations strategic crafting is found paired unsatisfactory. Internally, focusing too much on alignment and short term results will satisfy the balance sheet, but changes in the industry will blindside the firm sooner or later. Externally, too much attention to the adaptability side of the equation incl. adequacy and verisimilitude means building tomor-

row's business at the expenses of today (Birkinshaw and Gibson, 2004).

This striking insight reveals in part that the conscious process by which information is gathered and used to assist in the decision making at all levels of an organization is technically slower than the pace of progress. The figures are self-explanatory, any one explicit information equals scientifically 300,000 tacit ones incl. anthropology, psychology, sociology, and economics. Further, explicit knowledge is about to double every few years, leaving us with an inexhaustible supply of facts, models, and concepts at our disposal (Morris, 2011).

This article reveals a methodology to articulate efficiently the explicit/tacit relationship into (I) a knowledge space (II) its path dependency and (III) the knowledge fusing (tacit side), ultimately surfacing a unified model, perhaps for the first time found as definite, quantifiable, measurable and therefore applicable in business terms i.e. the scientific equation of K^3ey Performance IndicatorSM.

1.1 ELIMINATE risk of irrelevant exploration, by seizing your organization definite territory i.e. your company's "knowledge space"

Explicitly, content knowledge is a continuous augmentation of the global basket of hard sciences, which has been emulating in all industries incentivized by social purpose along the line of firm history e.g. Dutch Bicycle, English sports, Japanese walkman, French Pasteur vaccination,. Explicit information or hard sciences to-date are augmented by tacit fusing i.e. research.

Recently, researchers have been able to disentangle this relationship i.e. explicit/tacit, by establishing a systemic dynamic based on a computation of categorized knowledge i.e. know-what, know-why, and Know-how within a firm. And, it is delivering innovation on a systematic manner. Further, it has also been providing the vehicle for understanding the specific characteristics of the innovation process in any organization (Jensen, M.,B., Johnson, B., Lorenz, E., and Lundvall, B-A, 2007).

The knowledge space provides unrivalled clarity on the technical trajectory's DNA and at the same time legitimate cognitive directions to absorb tacit knowledge.

This pillar research brought a shift in interpretation by opening a company analysis upon three axes, revealing a knowledge space. Indeed, upon the tried adage, "We do not pick up mushroom at the beach". Similarly, the opportunity that a Dutch tulip will be subject to research at Microsoft is highly unlikely. It would again otherwise distract the authenticity of the firm. Therefore, we come up therefore with a structuring factor that is definite, therefore exploitable, upon tractability i.e. company specific cognitive distance.

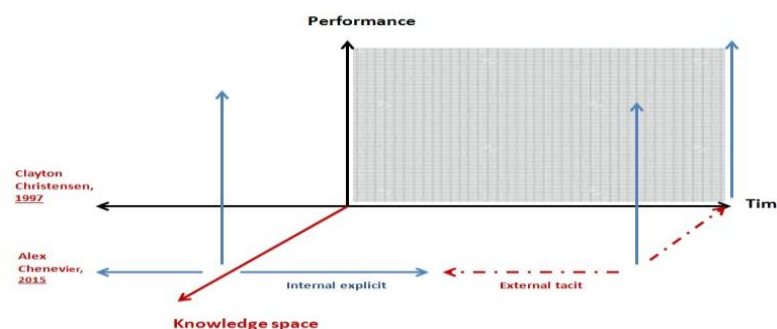


Fig. 2 It seizes the opportunity to compile all organizational rents due to the firm's resources & capabilities i.e. strategic assets, complementarity, scarcity, low tradeability, inimitability, limited substitutability, appropriability, durability.

2. RETREIVE within your knowledge space, your organisation’s unique technological expertise, its “path dependency”

2.1 Path Dependency

Arguably, firms, lacking managerial framework, are subject to market failures because of resources based imperfections, differing in and out of the equilibrium as they can’t operate in perfect market. This incapacity lies in the inability to captain firm technological trajectory tacit side, albeit available.

Indeed, boards’ organizational plurality of expertise, hindered by cognitive limitations of the managers’ heuristic decisions attached to their expertise, experiences, networks, cultural misinterpretations, company contract, build upon efficiency and therefore immediate results (Sebastiao, H., 2011), alleviate by essence and practice the future of technological trajectory epistemic knowledge distribution.

Foremost, in the “innovator dilemma” book published in 1997, Dr. Clayton Christensen extracted an economic pattern occurring identified tensions between actors i.e. economic maturity of established organizations vs. opportunistic management of outsiders, due to a new set of values applicable in every industry: disruptive innovation.

Since that inductive record, numerous academics have been building complementary theories, but management practitioners were still left without an axiological foundation.

To confound the existing knowledge space into workable business management blocks, Brian Glassman findings in co-creativity balancing common perspectives (procedural knowledge) and extremes perspectives (indigenous knowledge) brought pillar components to fulfill the knowledge space at right angles, around customer exploration, product boundaries, core technology boundaries, market molding, value proposition and synergy with know-how (Glassman, 2013).

The static knowledge filter highlights core technology and the products attributes. These two blocks are in pair spanning the historical technological trajectory and its today’s status i.e. the visible innovation. Its opportunity to make a scientific link is down to the path dependency e.g. unwind continuous accumulation of knowledge.

Indeed, most of Fortune 500 has been encountering along the course of their histories dramatic changes, nevertheless a path dependency remains.

2.2 The nicotine is the path dependency of the ciga- rette industry.

E-cigarettes are battery-powered devices designed to look similar to regular cigarettes incl. the action of inhalation to mimic burning. A battery-powered vapor- izer heats up a cocktail made up of nicotine and a mix of chemicals that is then inhaled by the user. Because they contain nicotine they are unquestionably addictive (K.C. Sokol 2014).

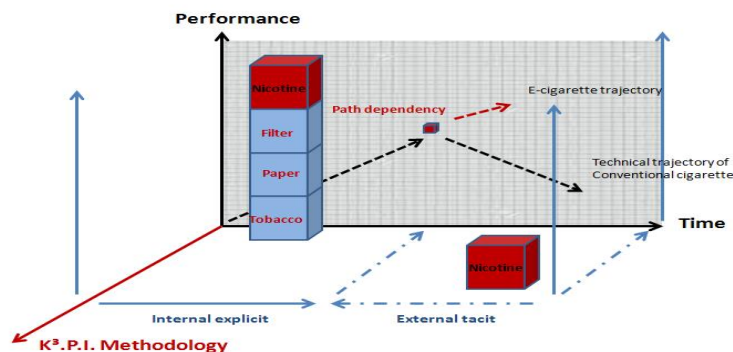


Fig. 3 Once this technical diagnostic is established, it gives us variable rationality i.e. a definite identified platform of explicit knowledge legitimately waiting to fuse tacit information on the prospect of absorbing disruptive innovation.

3. The path dependency is the new trajectory defining component of an established organization

In accordance with human nature, its society is permanently evolving and its organization alike. In the specific context of profitable organization e.g. corporate, this goal is conditional to an improvement or “augmentation” upon the spectrum possibly defined as incremental, significant or disruptive. It is applying, in some sort, a novel idea of economic significance upon a justified price, typically allowing an organization to sustain or improve its profitability.

The idea-profitability tension means that an organization is not prepared to learn without safeguarding some degree of innovation certainty. The objective therefore lies in the promise that the knowledge creation will, at some point produces, a tangible result i.e. aligned in an economic significance manner while fusing the incumbent technical trajectory. This alignment is down to the incumbent’s technological congruence.

In the context of disruptive innovation we actually observe a shift in the buying behavior, questioning the relevancy of improvement causality. Recently, some argue that disruptive innovation initiated from disruptors or outsiders are provoking a dislocation effect to the incumbent (Kandybin, 2015).

So why in the context of disruptive innovation, the incumbent absorptive capabilities do not meet the appropriate realities? Because disruptive innovation economics does not follow a technological congruence but a trajectory transformation.

Technical trajectory transformation or “by-expertise trajectory” means that we need to identify the right mobility among institutional diversity of knowledge (Cowan and Foray, 1995) between the old trajectory and the new one. This is where the path dependency becomes an essential asset that can be found scientifically with the economics of codification.

In this vein, from both theoretical and empirical viewpoints we cannot separate the analysis of knowledge production from the analysis of knowledge distribution. Structural conditions -the knowledge space and its path dependency-, at the same time, constrain human creativity in a recombinant and cumulative self-sustained and path-dependent

production of new knowledge and innovation (Consoli and Patrucco 2004).

Indeed, the efficiency is not an intrinsic attributes of the codification of a certain type of knowledge, but is rather the result of the emergent properties of the system under consideration; it is hence a creator of expertise (Cowan, and Foray, 1997), (Hatchuel and Weil, 1995). New knowledge is stochastically determined by old knowledge. The development of intangible capital assets such as knowledge and competences determine the local external conditions and irreversibility of production factors that generate path dependence⁹, as per the K³.P.I. Methodology.

3.1 ACTIONATE your “path dependency” to ABSORB legitimate tacit information of disruptive nature, in “perfect market” (Amit, R., and Schoemaker, P. J. H., 1993)

Once this technical diagnostic is established it gives us variable rationality i.e. a definite identified platform of explicit knowledge legitimately waiting to fuse tacit information on the prospect of absorbing disruptive innovation, by retrieving on a scientific manner the discrepancies between the historical track of decisions made and vs. the unique technological expertise. New knowledge being scholastically determined by old knowledge, the aforementioned path dependency is the authentic codified knowledge platform for recombination.

To appropriate the asymmetric technological cognitive demand in perfect market, it implies a specific disruptive innovation transformation or process e.g. group of cubes of knowledge, scaling away on the name of modularity, fongability and excludability i.e. the tacit dimension of the knowledge space.

Upon the non judgmental path dependency or platform of codified knowledge, the sociological science of knowledge provides the mechanical tools to apply a generation-recombinant mode opening ex poste and conditional distribution.

The former applies the incentivized modularity bridging localized blocks of complexity, later broken down in smaller blocks leading to inescapable several or unique disruptive technological stories, opening social purpose compliance i.e. true cultural authenticity of the firm.

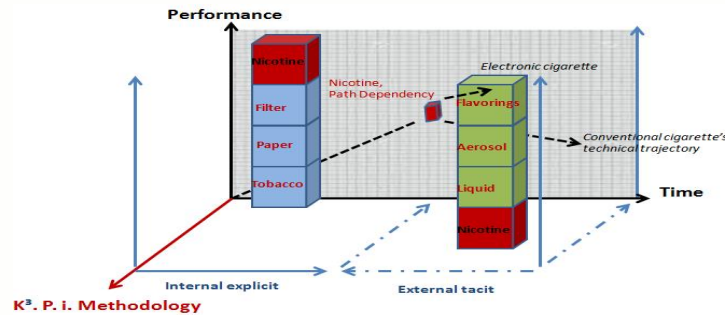


Fig. 4 Retrieved tacit knowledge in the cigarette industry

4. Conclusions

Its appropriation offers the opportunity to Fortune 500 type of companies' long established legitimate authenticity in their respective industries, to mature disruptive models repetitively, opting out from "false" sustainability albeit appearing compliant with established rules of risk management, repositioning the importance of sustaining innovation and inter industry endeavors.

The unified model is advocating the plurality nature of the board. Its appropriation offers the opportunity to Fortune 500 type of companies' long established legitimate authenticity in their respective industries, to mature disruptive models repetitively.

Reference

- Teece, J. D., (2010), *Business model, Business strategy and Innovation*, Long Range Planning 43, P 174
- Birkinshaw J., Gibson C., (June 2004) *Building an Ambidextrous Organization*, Advanced Institute of management research, paper n°3, P 3
- Morris, L., (2011), *The Innovation Master Plan*, Innovation academy, the innovation Process, P 144
- Jensen, M., B., Johnson, B., Lorenz, E., Lundvall, B-A, (2007), *Forms of knowledge and modes of innovation*, Aalborg Science Direct, Research Policy 36, P 680-693
- Sebastiao, H., (2011), *The Role of Competencies, Contexts, and Constraints in Creating Opportunities from Disruptive Technologies*, Journal of Strategic Innovation and Sustainability, Vol. 7, No. 1, P 2
- Glassman, B., (2013); *Opportunity identifications*, Polytechnic School of Engineering at New York University, Lecture Slides, Introduced February 2nd to the Innovation Juggernauts
- K.C. Sokol, Loyola University, (2014) *Tort as a disrupter of cultural manipulation: Neuromarketing & the dawn of e-cigarette*, paper 2015-01 P 211
- Alexander Kandybin, PWC New York (2015), *Strategy+Business, Diagnosing dislocation*

- Cowan R., Foray D., (1995), IIASA Working paper, *The changing economics of technological learning*, P 12
- Consoli D., Patrucco P. P., (2004) *Industrial dynamics, Innovation and development, The economics and governance of collective technological knowledge*, P 4
- Cowan R., Foray D., (1 Sept. 1997), *The economics of codification and the diffusion of knowledge*, P 3; P 4
- Hatchuel and Weil, (1995), *Un fondement formel à la théorie de l'innovation*, P 5
- Amit, R., Schoemaker, P. J. H., (1993) *Strategic Management Journal*, Vol. 14, P 35

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