

Book Review: The Architecture of Innovation: The Economics of Creative Organizations

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Abstract: *Josh Lerner in his book - Architecture of Innovation: The Economics of Creative Organizations explores the secrets of rising and falling of world top class corporations. These secrets are found to be embedded in understanding the art and architecture of innovation. The aim of presenting the book was to make it clearer to the 'top executives, investors, or policy makers' that how organizations and nations can sustain a leading edge in a competitive market with understanding the art of living with innovation. Organizations can not only compete but can also lead globally if key contributors - scientists/inventors/engineers are enable to focus on their innovations to meet the needs of customers. He claims that effective policies which focusing on how to be innovative can make a difference in the business venture. To this end, organizations can attract and retain the best minds across the globe with 'appropriate rewards', incentives, and can create a conducive working environment in their organizations.*

Keywords: Architecture; innovation; appropriate reward; incentives; conducive environment.

Introduction

The book - architecture of innovation: The economics of creative organization, by Josh Lerner (2012) published by Harvard Business School Publishing Corporation, is a wonderful attempt to open the eyes of business world. To this end, the author came up with a central idea that organizations can not only gain the competitive edge in the market but can lead also with effective policies. He appears to suggest that organization can focus on how to become innovative. In so doing, they can attract and retain the best minds across the globe with appropriate awards, through 'power of incentives' and conducive working environment. The book is assembled around eight chapters with full of exciting lived stories of top class ranking corporations. These stories are full of attraction to the people in business cycle. The author very convincingly presented to readers the rise and fall of organizations and the dilemmas and challenges associated with such organizations.

The architecture of the book is built on three sections such as part one, part two and part three followed by chapter one – the search for innovation and growth. In Part one – he discusses ‘the traditional model’ with two chapters: ‘Where R&D¹ came from’ – chapter 2, and ‘The changing face of corporate R&D’ – chapter 3. In Part two – ‘The venture alternative’ holds two chapters: ‘Getting venturesome’ – chapter 4 and ‘The shortcomings of venture capital’ – chapter 5. In part three, he came up with ‘The best of both worlds’ consists of three chapters: 1) ‘R&D, meet VC: the promise of corporate venturing’ – chapter 6, 2) ‘Levelling the innovation landscape’ – chapter 7, and 3) ‘Improving the design’ – chapter 8.

One of the strengths of this book appears that the author, Josh Lerner, interestingly captured the short sighted success stories of few top ranking corporate giants like Motorola which ultimately led to downfall in the market. The author argued that with ‘traditionally measure business success’ approaches (2012, p.2) Motorola could not understand the secrets of innovation to maintain the competitive edge in market. He further seems to justify his arguments with examples from Motorola where the ‘researchers who made at least ten patent filings sported gold-colored employee badges, while those with at least twenty-five wore platinum-hued ones’ along with financial bonuses for achieving these plateaus (2012, p.1) could not focus on innovations in its products with customer friendly and demand driven features but simply focused on designs only.

The architecture of innovation examines critically the question, how we can spur innovation in order to win the heart and mind of consumer. Providing some more examples like ‘hybrid models’ – initiatives that combine the best features of the corporate research laboratory and the ‘venture-backed start-up’ and sharing some real examples of short life success stories of corporations like XTV ventures that could produce products for leading edge. In so doing these corporates remained focusing on innovative ways to production with ‘thoughtful design and implementation’ (2012, p.12). He also came up with examples of the downfall of giant corporations, such as Xerox PARC and Motorola using traditional approaches to performance measures without being critical to needs of customers. These lived examples provide enough justification to claim that the author has successfully captured the real stories with a comparative lens to make the top executives, investors or policy makers realize about the question, ‘how important is the architecture of innovation’ to lead a competitive edge in the market.

Here, one of the interesting things can be interpreted from these short life success stories of hybrid venture corporates is the inconsistency in policy matters. For example in case of XTV, when the ‘top brass’ came to know that ‘midlevel functionaries in an obscure initiative were going to the highest-paid executives in corporation’ they could not bear this and changed the policy by breaking a contract. Probably, here the author tried to highlight the dilemmas which the corporations face due to their short sighted visions and inconsistent policies even at times of smooth functioning of successful ventures.

¹ Research and Development

However, the author at the same time informs and warns the higher ups of business ventures by sharing few of the lived experiences of different leading organizations' success and failure stories with real life examples. For instance, the classic model of R&D is embedded in 'pipeline model' that the more you invest in basic research the more innovation will result seems somehow an old taken for granted slogan. Whereas with emergence of powerful means of understanding the organizational cultures' model through applied research seems to be more interesting one. For example, from where innovation came from can be linked to "great man" theories where ...many of the biographers of technology industry leaders such as Bill Gates, Steve Jobs, and Larry Ellison attribute their success to a superhuman ability to spot innovations. The author indisputably came up with the idea of alternative ways of innovations that needs to understand the traditional model of innovation at the same time 'powerful systems' for 'efficiently producing new ideas' to see which works better.

Part One

In chapter two – where R&D come from, the author beautifully links with the historical developments of R&D leading to Frances Bacon' time and his thoughts about effective innovations. Such effective innovations appear to be embedded in strong reward systems, however, it reveals that innovation at any period of time needs rewards to encourage the creativity. Here I assert that the decreasing trend of federally funded research projects is one of the examples that can be seen as a kind of providing an open space for private sector to join the hands with government for venturing initiatives. For instance one can observe such kind of trend in case of few small nations like Holland, Greece and Poland where private spending in R&D is much higher than even big nations. The prime interest of private sectors' investment in R&D is clearly reflecting its focus on and looking at 'cases where firms change their structure' to improve performance and maximize the profit through innovative approaches to production (2012, p. 46).

Here, the author interestingly captured the stories of rise and fall of corporate R&D activities. Throughout the twentieth century such stories remained around the debate and efforts have made to establish centralized research facilities with justification that innovation in technology needs many brains to work together. However, many corporations with these dilemmas of having facilities under one roof, for innovations to boost up, had to close many projects of 'false starts' with repeated disappointment. Here it can be argued that the author's arguments about 'not well thought out projects' were fundamentally the result of 'false starts' may not be the case every time. It is because of the fact that none of the projects are basically designed without well thought out but the problems lies with inconsistency in policies, actions and commitment of the top executives, the decision making bodies, for many of their own justifications against such kind of inconsistencies.

However, the changes in working conditions in terms of creating conducive environment has been one of the main issues in the field of R&D to cultivate effective innovation in corporate sector. The author claimed that some of the issues seem to be similar in every corporate sectors in technological innovations for better results need to focus on an appropriate reward,

effective and powerful incentives etc. These claims also support by studies that ‘appropriately designed long term incentives can boost innovation’ (p.60). In this part of the book the author, to some extent, remained successful in convincing readers that although R&D is pain taking activity that really needs huge investments in order to achieve long term benefits. However, with short sighted visions, and with ‘confused objectives’ who will be responsible for the effective implementation of the findings of the research to boost up innovation. Moreover, who will provide more funds for research activities with consistent policies ensuring growth and development is found to be one of the dilemmas towards innovation.

Part Two

The basic concept of venture capital approach to funding for innovation was an alternative model to boost up activities for innovation. In such a case the investors not only finance the firms but also guide and monitor their activities to ensure that their investment should bring results based on its objectives. These funding and monitoring techniques basically using the Doriot’s vision by developing four basic milestones: 1) creating the investment model; 2) creating the fund model; 3) going global; and 4) going small (p.64). Here, the author successfully brought the lived experiences of success and failure and informed that how venture capital model can be one of the alternative ways to financing firms to encourage innovation. In all these real stories of the top ranking firms engaging technological innovations, especially after Second World War, informed that basic boosting fuel for innovation in firms is the intermediaries. The intermediaries who put tremendous efforts to make the grand ideas successful on ground by providing all necessary support that is required to make sure the innovation efforts are executable. The issues of venture capital model- a group of individuals making equity or equity like investments in growing firms, using funds raised from other people or institutions, and corporate research managers seem to be the same as both running highly uncertain projects by ‘knowledgeable, enthusiastic and often ‘overoptimistic champions’.

However, the author seems to agree that a powerful way to fund and oversee innovation, venture capital is not a universal solution to all problems. The stories revealing the problem with senior partners at established venture firms seems to be their limitations. Because ‘venture capital model is no panacea’ for all sorts of issues they are facing like impact of booms and busts, the mercurial public markets, and other limitations of shaping entrepreneurial actions.

Part Three

In the best of both worlds where author tried to capture a general view of the four most prominent waves of corporate activity in the venture capital arena in: 1) the late 1960s, 2) the mid-1980s, 3) the late 1990s, and 4) the early 2010s found to be in technological advances that highly impacted on all these activities of the firm. For example, Intel turned to corporate venturing to stimulate demand for its semiconductors and established funds to help next generation semiconductors. The authors highlights one of the major issues that corporate

ventures facing is around the ‘confused objectives’. Firstly, the problems seem to lie over the poor decision over central and divisional research, and secondly the partners unwillingness or close to willingness to the compensations offered by independent venturing groups. At the same time ‘naively mixing and matching’ models or ...‘poorly designed strategic alliance contract large corporate and the start-up have gone astray’ (2012, p.133). It was argued that without provision of government’ support to innovation efforts does not seem to achieve the desired objectives.

However, it seems to be a big challenge for every government to ensure its policies are friendly to keep ‘economic environment well-turned so that entrepreneurship and contracting between firms can flourish’ (2012, p. 156). Moreover, it was found that one of the best ways to ensure effective innovation endeavors to be successful is to create ways that hybrid between corporate laboratories and start-up. It was rightly argued that instead of many efforts to boost up innovations it was found that the most effective ‘drivers’ to innovations – a ‘right combination of incentives and organizational structures’ are still missing and without focusing on such kinds of drivers it seems to be very difficult to ensure innovation. The authors seems to agree that the ‘corporate innovation model’ needs to embrace a ‘sprit of trial and error concerning the ways in which innovation is pursued is likely to yield sustainable benefits both to corporate experimenter and to the society as a whole’ (2012, p. 177).

Educational Implications

The book - Architecture of Innovation: the Economics of Creative Organizations has many implications in education at different levels. First of all teachers at classroom level can use the art of effective innovation that can open their mind how teaching can be reshaped, such as culturally and contextually responsive pedagogies and that could be ‘glocal’² (Luitel, 2009) productive. In so doing, teachers can oversee the demands of the time and needs of learners based on their interest, their prior knowledge and with organizational (schools’) futuristic visions. However, it is easy to say but being innovative needs being critically reflective to self and others. In so doing, teachers as reflective practitioners become very sensitive towards their own notions, beliefs and actions associated with art of teaching, which is more challenging and needs commitment to change for improvement (Qutoshi, 2016).

Secondly, the architecture of innovation is an eye opener for administrators, principals, departmental heads and policy makers to think about the amount of time, resources and brain they use sincerely towards educative processes. The idea that innovation is a ‘complex and multifaceted’ endeavor that can be ‘measured’ needs time, resources and ‘awards’ including ‘appropriate incentives’, other benefits, ‘conducive working environment’ and improved life conditions of the brains working on innovative ideas is a powerful message to reflect on our roles and responsibilities. To this end, institutional higher ups can reflect on self that either we are performing our job towards cultivating innovation or just engaging passively with

² ‘glocal’ refers to a synergistic space that is created by simultaneous, conflated, reflexive and interactive relationships between global and local spaces (p. 312)

traditional ways of working without coming out of the box thinking. In so doing, they can create a space for improvement in self and others leading towards innovation in both teaching and learning.

Thirdly, the book can be a catalyst for change if the message of innovation is rightly understood and transformed into actions through consciously dedicated efforts at all levels. For example, the parents can reflect on their own role and responsibility with the level of their engagement with their children. In so doing they can ask questions of the kind, 'in what ways we are creating an environment at home for our children, and how that affect their motivation towards learning with fun and creativity by challenging old notions of doing homework, rote memorization and seeking help to solve mathematical problems, to name but a few'.

Culmination

The book - Book review - the architecture of innovation: The economics of creative organizations is a gift to many people at different level especially people at higher ups in organizations/schools, colleges/universities and at home. It is a gift to the top executives, investors or policy makers of corporate sector to reflect on how organizations can be innovative hubs for change to meet the needs and demands of customers in a very competitive market by attracting and retaining the bright brains. To this end, they can focus on how can an appropriate rewards, and incentives system in organizations along with creating a facilitating environment fully managing the rapidly changing technological innovations to gain and lead the edge among competitors. At the same time it is a gift to all stakeholders involved at different levels of educative processes to reflect on how the architecture of innovation has educational implications especially in the whole process of nurturing new bright brains in the market.

The lived stories of different corporates including educational institutions show that during the twentieth century and first decade of the 21st century seem still experimenting new models for innovation. However, it is argued that whatever experimentations through trial and errors are going on need to reflect on the most important drivers of innovations. Moreover, why appropriate combination of incentives and organizational structure are important to empower the right human capital to engage with innovative approaches to growth and development. With this view it appears to be equally important to think about how leadership creates conditions for organizations as learning ones (Qutoshi, & Rajbhandari, 2016). In this whole venture, governments need to provide support to all kinds of innovative efforts of both private and public organizations and encourage them to start up to develop hybrid systems for innovations.

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