

OPEN INNOVATION PARADIGM: MAKING INDIAN BUSINESSES COMPETITIVE

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ABSTRACT

In the new millennium, it is almost given that enterprises can and should use external ideas as well as internal ideas, and internal and external paths to market, to discover and realize innovative opportunities. This approach to innovation is called Open Innovation (OI). The Open Innovation model can be compared with the traditional, closed model in which enterprises generate, develop and market their own ideas, usually organised in an internal R&D department. Many researches on OI has demonstrated that partnering for innovation stimulates creativity, reduces risk in the innovation process, accelerates or upgrades the quality of the innovations made, and signal the quality of firms' innovation activities. Engagement with OI may therefore involve purely inbound OI, where technology and knowledge move from outside to inside the firm, outbound OI where technology and knowledge move from inside the firm to the outside, or both. The paper tries to investigate the potential of OI and use of OI in Indian companies making them globally competitive.

Keywords: *Open Innovation, Closed Innovation, Venture Capitalists*

INTRODUCTION

Open Innovation assumes that enterprises can and should use external ideas as well as internal ideas, and internal and external paths to market, to discover and realize innovative opportunities. The traditional, closed model is one in which enterprises generate, develop and market their own ideas, usually organised in an internal R&D department. This closed model has become outdated due to increased mobility of workers, better education, growing presence of venture capital, increasingly shortened product life cycles, growing competition, and wide availability of knowledge from multiple sources (Chesbrough, 2003a, 2003b). In the OI model, enterprises can still initiate and nurture innovations within the borders of their organisations, but they may also draw on alternative pathways to bring ideas to the market and to benefit from external knowledge (Drucker, 1988; Christensen, 1997; Thomke, 2001). The importance of India as a market and the competitiveness of Indian companies in global markets have made Indian companies valued targets of specialised global, independent technology suppliers.

LITERATURE REVIEW

Open Innovation Perspectives

The OI can be clearly understood from nine different perspectives. They are as follows:

- a. *The spatial perspective* relates to the globalization of innovation. The access to markets, resources, new communication and information channels increasing information sharing facilitate innovation to be carried out by different parties located at different places in the world.
- b. *The structural perspective* relates to the increasing division of work in innovation. More complex technologies engender specialization which in turn engenders alliances and R&D outsourcing. This is meant to increase competence sharing and innovation efficiency.
- c. *The user perspective* relates to the integration of users in the innovation process. This enables organisations to know users' requirements.
- d. *The supplier perspective* relates to the involvement of suppliers in the innovation process. Early involvement of suppliers in the innovation process augments significantly innovation performance.
- e. *The leveraging perspective* relates to the use of external technology and IP in order to leverage internal technology and IP, and vice-versa. Technology and/or IP neglected by an organisation can be useful to another one.
- f. *The process perspective* relates to the three processes in open innovation. (1) Outside-in process which consists of seeking out technologies outside the organisation. (2) Inside-out process

which consists of selling out technologies. (3) Coupled process which gathers the two previous ones.

- g. *The tool perspective* relates to the set of tools that are required in order to integrate users and/or integrate external problem solvers to the innovation process.
- h. *The institutional perspective* relates to the free revealing of inventions, findings, discoveries and knowledge in order to accelerate innovation and get it more efficient.
- i. *The cultural perspective* relates to organisation mindset. In OI, the not-invented-here mindset is something that must be overcome. This implies that value must be given to outside competence and know-how to cope with increasing products and technologies complexity.

Open Innovation and Indian Organisations

Indian organisations can benefit from adopting an open innovation philosophy. Some of the Indian companies that have used OI at the strategic and system integration level are as follows:

Tata Motors entered into the small car market via the Indica, and Mahindra entered into the high-end SUV market through the Scorpio. These were the outcomes of OI. Both the companies worked with a wide range of technology suppliers and design consultants. This integration led their inputs into successful products. This approach was cheaper than taking the vehicle design from a single source and allowed the companies to create their own distinctive product and brand identities (Krishnan, 2011).

Eureka Forbes, which has one of the biggest markets for retail water purification in the world, has been using OI very successfully. It is considered a pioneer in the water filtration/purification business in India, and its Aqua Guard has tremendous brand recall. The company has focused on building the ability to translate knowledge into innovation and operational excellence and have an open invitation for technology partnerships on their website. One of Eureka Forbes' recent products, AquaSure, is based on an integrated multi-stage technology that the company sourced from the Argonide Corporation of the US. This disruptive technology based on a Nanoceram filter allows the transformation of contaminated water into water as clean as bottled water without the use of chemicals (Krishnan, 2013).

Biocon, India's largest biopharmaceutical company has successfully used ideas from outside to complement ideas generated from within. Biocon after starting its own proprietary oral insulin product entered an alliance with Nobex, a small American company that had developed an innovative delivery mechanism for oral insulin. Later, Biocon bought out Nobex's intellectual property rights and used these assets to build a strong patent platform in the oral insulin domain (The Economic Times, 2004).

Tube Products of India, a unit of Tube Investments of India Limited, is a steel tubes manufacturer based in India. TPI has joined Advanced Steel Processing and Products Research Center (ASPPRC), a US-based steel processing consortium. ASPPRC has close links with the Colorado School of Mines. Membership of this consortium has helped TPI learn about processing steel in a more comprehensive manner. Leading global steel makers and automobile companies are a part of this consortium, and this helps TPI get a clear product perspective (Krishnan, 2011).

Ideaken founded in 2009 and having offices at Bangalore and Singapore strives to remain the most usable platform for collaborative innovation. Ideaken created a campaign for innovation in sanitation technology in India. They used the method of OI using their platform. They were seeking sanitation system design, suitable for mass rural installation and usage. This project was launched on 19th November 2010, 'World Toilet Day'. This is what a collaborative innovation can do (Gupta, 2010).

Haier, one of the world's largest consumer durables company, has hired a Bengaluru based startup, Ideapoke, to help develop a technology that would enable refrigerators to detect pesticides and harmful bacteria in fruits and vegetable using sensors. Haier has joined hands with Ideapoke through its innovative platform called Haier Open Partnership Ecosystem (Hope). The association with Haier will empower innovations in the consumer electronics segment by offering Internet of Things (IoT) – a technology where devices communicate with each other (Abrar, 2015).

Open Innovation at Wipro seeks to deliver unique business value to it and its partners and customers by discovering, aligning and collaborating with start-ups, academia, expert networks, venture capitalists (VCs), incubators and technology consortia (Wipro).

SOSA, global open innovation platform with a global network of tech innovation hubs, started in 2013 by 25

leading Israeli investors and high-tech entrepreneurs, brings together start-ups, entrepreneurs, corporations and investors (SOSA). It enables Indian businesses to identify cutting-edge technologies and start-ups from Israel. SOSA has helped HP Tech Ventures to adopt best innovative practices on its defined verticals. Through SOSA, DCF Ventures will facilitate a connection with start-ups from Israel in areas of fintech, big data, clean tech, insure-tech, mobility solutions, industrial solutions, cyber tech and supply chain management.

Net App Inc., a Fortune 500 American multinational storage and data management company, launched its start up accelerator programmes Net App Excellerator Programme in India. The company has issued a statement saying that the programme has been so successful that it would be launching a new programme that would enable product-ready start-ups to work with it on an ongoing basis (Vardaan, 2017).

DISCUSSION

Chesbrough (2003a; 2003b) first proposed the concept of OI. He believed internal R & D is no longer the invaluable strategic asset that it used to be. In the traditional model of closed innovation, firms relied on the assumption that innovation processes need to be controlled by the firms and that was based on self-reliance. However, with the changes in the society in general and the industrial world have led to increase mobility of knowledge workers and the development of new financial structure (such as venture capital) and these taken together have caused the boundaries of innovation processes to start breaking up (Chesbrough, 2003a). Dynamism and flexibility are key aspects of OI. There are many ways of practising OI. Some of those suggested by Enkel & Gassmann (2007) are customer and supplier integration, listening posts as innovation clusters, applying innovation across industries, buying intellectual properties and investing in global knowledge creation.

In the arena of OI, much has not been researched about management, governance, skills, technologies and policy matters. Above all, at the policy-making level, not enough work has been carried out to facilitate familiarisation of positive aspects and impact of OI by the policy initiators functioning at the different socio-economic levels. Furthermore, the role of the government remains uncharted with respect to many facets of the decision-making process in the context of OI at the national level.

The Indian business environment has long been subject of stifling regulations making Indian companies non-competitive globally. However, with the liberalisation of the Indian economy, spurred by competition, the Indian firms in the private sector have improved the quality of their products and services and have rapidly expanded making their presence felt globally and India has become the locus of innovation. The process of making innovation an open-ended process has now become an accepted practise by most of the Indian firms. Indian firms are spending very highly on research and development. The study highlights some of the ventures in open innovation of the Indian firms. It is clearly visible that in sectors like automobiles, consumer goods, capital goods, etc. open innovation is the key driver to growth.

CONCLUSION

Open innovation involves projects with high risk, high impact, and uncertainty. Stage-gate type of innovation may work best for incremental product development where details of what to build are given and where risk is minimal. However, enterprises are beginning to experiment with processes that are more agile. Indian businesses are showing keen interest in OI. Innovation and entrepreneurship are now the focus of the Government of India. In order to make a comprehensive mass movement and encourage innovation MHRD, AICTE, i4c and Persistent Systems have come together to organise Smart India Heckathon (SIH) 2019, a unique Open Innovation Model for identifying new and disruptive technology innovations to solve the challenges faced in our country. However, Indian companies need to improve their capabilities in technology assessment, forecasting, valuation, scaling up and integration if they are to take advantage of the opportunities provided by the open innovation paradigm.

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