Chapter 62
The Practice of Open Innovation in Chinese Enterprises

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ABSTRACT
Along with the increasing pace and complexity of technology, the importance of external knowledge exploitation has been acknowledged by many researchers and practitioners. How to manage the innovation efficiently is an important issue for firms to enhance competitiveness. Based on the essentials of open innovation, this chapter describes the conditions of openness in the process of innovation in Chinese enterprises. This chapter summarizes some modes for the organization of open innovation in Chinese enterprises, including all employees participate in the innovation process, users involve in the innovation, suppliers participate in the innovation, collaborations with firms in other industries and competitors, cooperation with universities and research institutes, and also intellectual property licensing. Finally, this chapter introduces a case of open innovation practice in Baosteel, which is a famous manufacturing enterprise in China.

INTRODUCTION
As the key factor to a company’s capability to thrive, innovation can make enterprises be more competitive. The research made by PWC England Corporation indicated that enterprises mastering innovation well grow quicker and create more profits than others. Innovation is becoming the driver and headspring of survival and development for enterprises with the more intense market competition (Kumpe & Bolwijn, 1994). Enterprises must attach importance to innovation to respond to the rapidly changing market, to satisfy users’ diversified needs and to maintain competitive advantage. Through continuous innovation, enterprises can apperceive and obtain those resources with latent value and characteristic more thoroughly, thus forming heterogeneous capabilities which can be imitated with great difficulties by competitors (Alchian & Demsetz, 1972).

Today the importance of innovation has been recognized by all practitioners. Intense
competition and the faster changing markets and
technologies have made sure of that. But techno-
logical innovation is an activity full of risk with
both high inputs and high rates of failure. With
competition getting more intense, companies that
don’t innovate will die. While most innovations
tend to fail, how to innovate is a key problem. In
today’s world where the only constant is change,
the task of managing innovation is vital for com-
panies of every size in every industry to remain
competitiveness. Innovation is a very difficult
process to manage.

In Chinese enterprises, the technological in-
novation capability is laggard compared with firms
in developed countries. R&D activities in most
enterprises are inactive. In 2011, only 11.5% of
enterprises to total number of enterprises above
designated size (with sales more than 20 million
yuan) have R&D activities. And the percentage of
expenditure on R&D to sales is 0.71 in Chinese
industrial enterprises. Thus the support of R&D
to technological innovation is relatively weak
and technology intensity is very low in Chinese
enterprises. R&D activities, especially basic
research activities, in Chinese enterprises are
usually inactive. Expenditures on basic research
were only 0.11% of the R&D expenditures and
the expenditures on applied research were 2.9%
of the R&D expenditures1. Therefore there is a
lack of original innovation in Chinese enterprises.

Enterprises have to face the global economic
circumstance. The increasingly intense market
competition is challenging the technological
innovation capability in Chinese enterprises
rigorously. The great change of market rule and
the rapid development of global economic inte-
gration lead to the radical change of enterprises’
survival environment. Only through innovation
can enterprises create new opportunity to exist
well and face the new challenge.

The open innovation paradigm campaigned by
Henry Chesbrough offers a new way of thinking
about and managing innovation (Chesbrough,
2003). Open innovation means that companies can
and should use external ideas as well as ideas and
take internal as well as external paths to market.
Open innovation emphasizes the role of other
departments besides the internal R&D depart-
ment, emphasizes R&D collaboration with outside
organizations, emphasizes integration of internal
and external knowledge, and emphasizes outside
distribution to market (Chen & Chen, 2005).

Open innovation may show the advantage
of free flow of new ideas. Through opening the
internal R&D process to outsides such as users,
suppliers, and even competitors systematically,
innovation provides access to more ideas than
could be developed in-house. Open innovation
can speed innovation and reduce the uncertainty
of technology and market. Open innovation may
bring many benefits to the advancement of in-
novation capability and fuel growth. In today’s
hyper-competitive environment, no organization
is capable of generating all the knowledge it
requires for innovation in-house. By leveraging
the discoveries of others, companies can produce
spectacular results (Silverthorne, 2003).

The new mode of innovation also shows a
new direction for Chinese enterprises to innovate
indigenously. More and more enterprises in China
are taking on the open innovation path. For Chi-
nese Enterprises, this new innovation mode may
be especially important. The internal innovation
resources are inferior and insufficient obviously
in Chinese enterprises. It is unable to compare the
scale and intensity of R&D investments of Chinese
enterprises with their multinational counterparts.
Therefore it is more difficult to realize indigenous
innovation by simply relying on internal resources.
Moreover, Chinese enterprises face the erosions
of closed innovation. The mobility of knowledge
staff is frequent, the speed of knowledge creation
and dissemination is getting quicker and venture
capital has been not new in China. Therefore, the
open innovation paradigm is not only the tendency
in the developed countries it but also will become
ubiquitous in Chinese enterprises.
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