Chapter 11

Business Research and New Technologies

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ABSTRACT

The development and exploitation of new scientific and technological knowhow is a prime engine of economic growth. Different innovation systems have developed different approaches to this problem and have built upon varying combinations of public and private support for Research and Development (R&D) over time. In this context, inclusive approach to research and new technology intermediaries play an important brokering and entrepreneurial role. This chapter aims to understand the inclusive approach to business research, review new technologies, and their applicability to business research. The study responds to the need to gain a better understanding of possible ways to strengthen the capacity of business research to generate value and thereby bridge the gap between theory and practice. The discussion presented in this chapter offers a number of useful lessons for the development of new inclusive policy instruments to benefit the field of research in general and business research in particular.

INTRODUCTION

Business research is deemed to be of more value when it rightly augments the economic development processes. Research in business area and any other social sciences cannot be merely theoretical—there is greater need for the researcher to understand and include the practical aspects. This is commonly referred to as applied research or applied sciences research. Whatever be the aim of the researcher, the 21st century has presented the professional researcher with a myriad of challenges and opportunities. In particular, there are a number of new and exciting digital technologies, which offer researchers considerable advantages in terms of speed, access connectivity and economy. Researchers all over the world are using these new, innovative methods to design and develop and conduct research. However, this brings greater responsibility on researcher and there in comes the need for understanding the changing dynamics in the field of business and social sciences research.

While qualitative research methodologies have grown in importance the approach to understand the differences between research testing and
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theory, has become blurred. The international business arena, has accepted a qualitative stance to develop research approaches with dynamic management techniques, incorporating the cyclical openness to move in and out of a system thinking approach that provides cause and effect parameters for a global business enterprise approach. This means that qualitative techniques used in business planning research, focusing on a dynamic cyclical recall method, can be linked with global management thinking which is moving towards inclusive strategies. The management targets interlinked with the literature and the hypothesis can provide the basis of identifying the means of staging a direction to this new theory. The overall mission of this valuable study would be to aid researchers in recognizing the gains of adapting inclusive approach for using the latest technologies, the advantages offered and also to safeguard against the pitfalls therein so that the world of academia continues to excel in its role of knowledge creation, knowledge transfer and knowledge dissemination. The chapter has the following objectives:

1. Review approaches to business research with focus on current thinking.
2. Discussion of new technologies as enablers of business research.
3. Discuss inclusive approach for business research.

Background

There is great ferment in the academic and policy debate around the opportunities and risks of extracting value from the knowledge generated in public research environments through increased direct exploitation of capital (for example lab facilities) and intellectual assets (human capital and IP). No consensus exists on the best ways to achieve these goals, which are typically multidimensional and reach deep into the fundamental ethos and operating practice of public research organizations. Moreover, different economic systems have developed very different approaches to this problem and these also depend on long-standing historical traditions of funding the creation and use of new knowledge.

In recent years the perception has been growing that technical change is becoming more distributed, modular and globalized. This raises a number of questions – by and large unresolved in the literature – related to vertical disintegration pressures, the benefits of and limits to the growth of network-type organizational forms, intensive use of flexible contractual arrangements and effective strategies for fast-changing industrial settings. Stronger international competition, higher costs of R&D and increasingly complex goods and services – it is argued – have intensified the fundamental uncertainty associated with investments in research for innovation. These factors are claimed to have contributed to the perceived diffusion of more ‘open’ models of innovation (Chesbrough, 2003) and have also brought about dramatic changes in the role of higher education institutions (Etzkowitz, 2002; Audretsch & Phillips, 2007; Antonelli, 2008). These changes go hand in hand with the concomitant development of new ways of organizing the provision of capital (as reflected by the growth of the VC sector), the emergence of advanced intermediate markets for knowledge (patents and licenses) Antonelli and Teubal (2006) and the creation or substantial update of institutional/organizational channels for the transfer of technological knowledge. The innovation and R&D management literature has been particularly active in research on knowledge exchange but there is no agreement on the relative effectiveness and efficiency of solutions as diverse as changes to patent policies, direct subsidies or, for example, the creation of science parks.

Knowledge exchange is an important component of research policies. Conceptually, it is a fundamental mechanism by which new knowledge is diffused throughout the system and different organizations participate in the innovation process along the timeline that goes from the development of a new idea with market potential