
How do faculty members of business schools contribute to the value chain of companies? A new perspective on knowledge

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Research question

This paper addresses the following questions: 1) To what extent do academics in business schools supply services and expert advice in the value generating activities composing the value chain of companies? 2) How are academics in business schools positioned on the different interdependent elements that constitute a business model? 3) How do faculty members of business schools from different disciplinary backgrounds come to develop differentiated business models of provision of expert advice to companies? 4) What implications do the results of this study indicate for the management of business schools, and the development of public policies supporting knowledge transfer in business schools and value generating activities of the value chain of companies?

Current understanding

The review of prior studies on knowledge transfer suggests major methodological and theoretical difficulties that need to be taken into account in order to advance knowledge. They are related to the study population, the measurement of dependent variables and explanatory factors.

Difficulties associated with the unit of analysis and the composition of the study population: Most studies on university research transfer target the number of technologies commercialized using university technology transfer offices as their unit of analysis (Harmon et al., 1997; Agrawal, 2001; Hanel, 2006; Landry et al., 2007). In this paper, we adopt the researcher's perspective by making our unit of analysis the knowledge transferred by individual researchers. This unit of analysis is especially appropriate to investigate the knowledge transfer activities of faculty members in business schools because a majority of their knowledge transfer activities is not part of the mandate of university technology transfer offices. Furthermore, such a unit of analysis is especially well suited for the study of knowledge transfer activities involving the supply of services and expert advice to companies.

Difficulties related to the measurement of the dependent variable knowledge transfer: Most studies on knowledge transfer are based on data on patents, licensing and spin-offs because this offers a perfect tool for an objective, quantitative analysis of knowledge transfer (Agrawal, 2001). This paper contributes to the advancement of knowledge in university research transfer by taking into account a more comprehensive picture of the mechanisms by which knowledge moves from researchers to companies. In this paper, we assume that faculty members in business schools deliver value to companies through the provision of a large variety of services and expert advice, such as helping firms to develop strategy and plans, assess markets, etc. In this paper, the services and expert advice provided by faculty members to companies are integrated in the Porter's value chain. The presentation will also discuss various alternatives used to measure the variable knowledge transfer.

Difficulties associated with the identification of factors explaining the knowledge transfer activities of faculty members in business schools: The explanation of knowledge transfer is still problematic. There is no general theory for the field (Landry et al., 2007; 2009). This paper builds from prior studies on knowledge and technology transfer to develop an integrative framework of the factors that affect the knowledge transfer activities and service offering of faculty members in business schools. In this paper, we use constitutive elements of the business model framework as an integrative foundation for deriving insights and hypotheses on knowledge transfer activities of faculty members in business schools.

Integrating knowledge and technology transfer expert advice provided by faculty members in business schools in a value chain conceptual framework

Knowledge moves from university to industry with the help of intermediaries (Howells, 2006). Most studies on the transfer of academic knowledge to companies focus their attention on university technology transfer offices as intermediary agents between academics and companies. This study shifts the emphasis from the organizational level to the individual level and adopts the individual faculty member as its unit of analysis. Two arguments justify this choice of unit of analysis. First, academics are not required to disclose to their university administrators activities that do not lend to the commercial exploitation of their inventions and discoveries. Moreover, as shown by Siegel et al. (2003), Thursby et al. (2007), and Hall et al. (2003), many academics do not disclose commercial knowledge transfer activities to their university administrators, although prescribed by law. In order to capture as comprehensively as possible the services and expert advice provided by individual faculty members to companies, we conducted a survey asking faculty members in business schools to report various types of services and expert advice they provided to companies. Second, we assume, as pointed out by Searle Renault (2006), that academics make many key decisions about how to transform their research results and expertise into marketable product innovations. Therefore, understanding how faculty members in business schools make decisions is critical to shed light on the contribution of university knowledge in the value chains of companies.

Furthermore, prior studies on the transfer of academic knowledge to companies usually use patents, licensing and spin-offs as their dependent variables because such data offer a perfect tool for an objective, quantitative analysis of knowledge transfer (Agrawal, 2001). The use of these easily available quantitative data has come at the expense of investigations into other forms of knowledge and technology transfer. We suggest that focusing on patents, licensing and spin-off launching captures only a small fraction of economically valuable services provided by faculty members in business schools. Indeed, faculty members in business schools deliver value to companies through a much larger variety of ways. Howells (2006) has developed a more comprehensive perspective in approaching the ways intermediaries help companies at the different stages of their innovation process by focusing on functions and roles such as foresight and diagnostics, scanning and information processing, knowledge processing and combination/recombination, gatekeeping and brokering, testing and validation, accreditation, validation and regulation, protection of results, commercialization, and evaluation of outcomes. Following Lundquist (2003) and Phan and Siegel (2006), we assume that knowledge and technology transfer occurs within value chains. In knowledge and technology transfer, a generic value chain involves a chain of value-adding activities undertaken to transform knowledge and expert advice into commercialized product innovations sold to customers. Therefore, we disaggregated the services and expert advice provided to companies into a sufficient level of detail, in order to better understand how individual academics may help companies in the different value-adding activities of their value chains. Then, we integrated the services and expert advice provided to companies into the technologically and economically distinct value creation activities of Porter's value chain because his value chain is both generic and well known in the milieu of faculty members in business schools. The value chain framework of Michael Porter provides a model to analyze how the expert advice provided by faculty members in business schools may help companies to create value and create competitive advantage.

Linking the expert advice provided to companies to business model elements

There is no general theory for the field of knowledge and technology transfer (Molas-Gallart et al., 2002; Reisman, 2005). Furthermore, Howells (2006) concluded his literature review of intermediaries, such as faculty members in business schools, in the innovation process by pointing out that existing studies have not generally been well-grounded theoretically. Once an academic has chosen the type of expert advice he should offer to companies, the next question is to figure out how to create value for companies, what types of companies to reach, how to relate to companies, through which resources, with what strategies and finally, how to make money? Each of these choices involves different elements of business models. For individual academics, the formulation of a business model is a key decision because once the model is set, the expertise well developed, it becomes difficult to change the business model due to entry costs, forces of inertia and resistance to change (Zott and Amit, 2009). Ostenwalder et al. (2005) have reviewed the most common building blocks of business models. In this paper, we propose to rely on the Chesbrough (2007; 2009) approach to the business model concept because it provides generic components to analyze the different sources of value rather than specific sources of value for particular types of companies. However, as pointed out by Teece (2009), the business model concept constitutes a conceptual framework, not a theory. Therefore, as pointed out by Rasmussen (2007), it does not enable to derive predictions about choices to be made by individual academics, but, however, it helps to identify factors that could influence the choices to be made. Therefore, we have integrated, into a business model framework, six building blocks likely to influence decisions regarding academics' expert advice offerings: customer value proposition, market segment, revenue generation mechanisms, key resources, positioning within the value network, and strategies.

Short CV
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Dr. Réjean Landry is a Fellow of the Royal Society of Canada since 1999. He is the holder of a Chair on Knowledge Transfer and Innovation funded by the Canadian Health Services Research Foundation and the Canadian Institute of Health Research. Dr Landry is a professor at the Department of Management of the Faculty of Business at Laval University in Quebec City where he teaches on knowledge transfer and knowledge management. He has published extensively on public policies, innovation and knowledge transfer. His research team edits a weekly electronic newsletter: E. Watch on Innovation in Health Services, which is disseminated to 7000 people, including about 400 researchers and 6600 managers and professionals in health services in Canada and abroad. Réjean Landry is also the head of the Réseau Innovation Network (RIN) which brings together more than 650 members, comprising 50 university researchers and students, and 600 partners from public, private and not-for-profit organizations. The RIN edits a weekly electronic newsletter: INNOV. His ongoing research projects concern knowledge transfer and innovation. Réjean Landry has worked as a consultant on innovation for various national and international organizations.

Selection of recent articles

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