

Source of information and types of innovation activity in Albanian firms

PhD Dorjana Feimi
University of Vlora

Abstract

Innovation is widely seen as a basic factor of competitiveness, involved in the organizational structures, processes, products, and services within a firm. The purpose of this paper is to examine the information sourcing practices in telecommunication and banking sector associated with the development of different types of innovation activity (product/process). The relationship between different types of innovation and effect of innovation is also to be examined. The paper is based on a quantitative study of a sample of 104 companies (telecommunication and banking sector) located in Albania. The management completed a questionnaire analysing whether their firms had introduced new innovations and what were the sources of information behind these innovations. The introduction of new product and market innovations appears to be associated with the use of more or less information sources.

Keywords: Innovation types, source of information, innovation activity, Albania.

Introduction

Innovation is an important element of competitive advantage and it is a characteristic that encourages customers to buy novelties. Thus, the competitive position of economies, companies and other entities are less and less determined by available material, human, and financial resources. It is knowledge that gains importance, and especially innovative method of its deployment, allowing translating the acquired and processed information resources into innovation. The above seems to be confirmed by the current widespread of the concept of the “knowledge-based economy” (see OECD 1996). To use knowledge in undertaken activities it is inherent to have information. Information is in fact an important stream of messages, which after processing becomes knowledge that can and should be promoted in the organization and fulfilled in the form of innovation. The company which gathers knowledge and uses this valuable resource becomes innovative, and as a result gains a competitive advantage (Nonaka, Takeuchi 1995, p. 3; Nonaka 2007, p. 163).

The aim of this paper is to present sources of information for innovative activity used by Albania enterprises, classify them and show its essence and importance. Also this paper want to examine the information sourcing practices in telecommunication and banking sector associated with the development of different types of innovation (product/process). The structure of this study is as follows. The next section presents the review of literature on the type of innovation activity and innovation idea source. Section 3 shows the methodology of analysis. Data analysis and the presentation of results are shown in detail in Section 4. Finally, the Conclusion discusses the results obtained in light of existing literature and summarizes the main conclusions and contributions of this study.

Literature review

Particularly over the last two decades, innovativeness has turned into an attractive area of study for those researchers who tried to define, categorize and investigate its performance impacts, especially owing to its practical relevance. Innovations provide firms a strategic orientation to overcome the problems they come across while trying to achieve sustainable competitive advantage (e.g. Drucker, 1985; Hitt et al., 2001; Kuratko et al., 2005). Innovation as a term is not only linked to products and processes, but is also linked to marketing and organization. Schumpeter (1934) described different types of innovation: new products, new methods of production, the exploitation of new markets, new sources of supply, and new ways to organize business. Drucker (1985) defined innovation as the process of equipping in new, improved capabilities or increased utility.

To understand the level of innovativeness of Albania enterprises it is necessary in the first place to show the difference between innovative firms and innovation-active firms, both on the definitional and empirical levels. For the statistical and analytical purposes the innovative firm is perceived in the manner specified by the OECD in the Oslo Manual. The innovative firm is one that has introduced during the period under review at least one innovation, as defined by the OECD, regardless of the final result (success or failure) of the implementation of innovation (OECD 2005, pp. 58-59). This classification considers a company innovative when it uses its own innovative solution as well as when it uses solutions generated by other entities. The OECD has also identified in the Oslo Manual the institution of innovation-active firm which is "one that has had innovation activities during the period under review, including those with on-going and abandoned activities", for various reasons (OECD 2005, p. 59).

But how do connect with sources of knowledge affect the implementation of new practices? This study argues that having more such ties and having ties with a variety of knowledge sources both affect the implementation of new practices positively. The technology innovation literature focuses on actors like lead customers and suppliers (Utterback, 1994), as well as on a more diverse set of external knowledge sources as a driver of innovation (e.g., Hargadon, 2002; Katila and Ahuja, 2002). By using more knowledge sources firms increase their chances to find something useful – they draw from the pool of knowledge more often, which improves the odds of being lucky, and they stand a greater chance of gaining access to complementary knowledge because of the diversity of sources they consult (Leiponen and Helfat, 2005). More contacts with knowledge sources should therefore lead to more insights into new management practices that have worked in other settings and hence to more successful implementations. The greater the diversity of sources the firm has access to, the more likely it is that the insights gained from these sources are recombinable in creative and valuable ways (Hargadon, 2002). Anecdotal evidence from Kaplan (1998), Kleiner (1996) suggests that external parties often play a critical role in the early stages of introducing new management practices and Birkinshaw et al. (2008) likewise stress the role of external actors in the management innovation process. Therefore this

study argues that the greater the breadth of knowledge sources used by the firm, the higher the level of introduction of new management practices. But which categories of knowledge sources ought to be considered? This paper investigates four such categories – internal sources (i.e., anyone inside the legal boundaries of the firm), market sources (customers, suppliers, competitors, and consultants), institutional sources (universities or other higher education institutions, government or public research institutes) and other sources (Conferences, trade fairs, exhibitions, scientific journals and trade/technical publications). The paradigm literature (Abrahamson, 1996; Staw and Epstein, 2000) has stressed the role of market-based sources of knowledge as the primary driver of the uptake of new management practices. Thus, firms mimic their competitors by implementing management practices that appear progressive (Abrahamson and Rosenkopf, 1993), customers provide incentives to encourage firms to adopt new practices (e.g., Guler et al., 2002); suppliers push management innovations down the value chain, and consultants promote their own solutions (Abrahamson and Fairchild, 2001). In the aforementioned *Oslo Manual* OECD points out the essence of information sources of innovation activity. Among them (OECD 2005, pp. 78-80) are:

- Open information sources provide access to information and even knowledge without the need to pay high fees or free of charge. Open information sources do not provide access to ready-made solutions (machines, patents etc.);
- Acquiring knowledge takes form of a purchase of information or ready knowledge or employing employees with new ideas;
- Innovation co-operation based on active involvement in joint projects and exchange of information;
- Internal sources of information (R&D, marketing, and production departments etc.).

Methodology

Methodology is based on review of the scientific papers, national development documents and descriptive research design. This study collected quantitative data from 16 banks and 89 companies of telecommunications in Albania using a self-administered questionnaire. The questionnaires have been answered mainly by owners of businesses and sometimes by accountants of businesses..

Descriptive statistical analysis

The descriptive statistical analyses of the type of innovation activity, how were this product/process developed and innovation idea of the survey questionnaire are presented and categorized and appears to be an indicative representation of the business community (sector of telecommunication and bank) in Albania.

Type of innovation

The findings of the type of innovation activity were analyzed and divided into five categories: process innovation, product innovation, both product and process innovation, no innovation activity and ongoing or abandoned innovation as show in

table 1.
 Table 1: Type of Innovation activity

	Type of Innovation		
	Bank	Telecommunication	All
Process Innovation (%)	12.5	6.8	7.7
Product Innovation (%)	12.5	9.1	8.7
Both Product and Process (%)	62.5	54.5	55.8
No Innovation Activity (%)	6.3	13.6	13.5
Ongoing or Abandoned (%)	6.3	15.9	14.4

The results of the process innovation showed that: the majority was sector of bank (12.5%) and the minority was sector of telecommunication (6.8%). About product innovation, the results show that: again the majority was sector of bank with 12.5% and the sector of telecommunication only 9.1 %. In total, 8.7 per cent of enterprises had introduced new or significantly improved products or services in the sample period, and 7.7 per cent had introduced a new process.

The level of product and process innovation is considerably greater in sector of bank. The results of product and process innovation showed that: the majority was sector of bank (62.5%) and minority was the sector of telecommunication with 54.5%.

Regarding the ongoing or abandoned the innovation during the three years 2010-212, the results showed that: the majority was the sector of telecommunication (15.9%) and the minority was the sector of bank with 6.3%. More detailed information, broken down into telecommunication and banking sectors, is presented in Table 1.

Who developed innovations?

The findings of who developed innovations were analyzed and divided into four categories: mainly by enterprises or group of enterprises, together with other enterprises, institute or university and other as show in table 2.

The result showed that the Innovative companies most frequently were developed by own enterprises or group of enterprises for their product and process innovation (for process innovation 75 per cent bank, 64 per cent telecommunication; for product innovation 68.8 per cent bank, 57 per cent telecommunication). More detailed information, broken down into telecommunication and banking sectors, is presented in Table 2.

Table 2: Who developed Innovations?

	Product Innovation		Process Innovation	
	Bank	Telecommunication	Bank	Telecommunication
Owen enterprises/group of enterprise %	68.8	57	75	64
Together with other enterprises or % Institute or university %	25	40	18.5	9
Other %	-	3	-	-
	6.2	-	6.5	27
Total	100	100	100	100

Firm's Innovation Idea Sourcing

Information is essential for innovation and can be retrieved from a broad range of sources. In the questionnaire the firms were asked about the following 12 sources which can be split into four groups:

- (1) Internal sources: within enterprise or enterprise group,
- (2) Market sources: customers/clients, suppliers, competitors, consulting firms/commercial R&D service providers;
- (3) Institutional sources: universities/universities of applied sciences, public research organizations;
- (4) Other sources: conferences/trade fairs/exhibitions, scientific journals/trade/technical publications, associations/chambers, patent specifications, standardization committees/documents.

Respondents were asked to indicate their firm's innovation idea sourcing as shown in Table 3.

Table 3: Classification of Sources of Information for Starting Up Innovative Activity

	Information source	
	Bank (%)	Telecommunication (%)
Internal		
<i>Within your enterprise or enterprise group</i>	83.5	92.1
Market Sources		
<i>Suppliers of equipment, materials, components, or software</i>	70.1	70.8
<i>Clients or customers</i>	35.6	45.3
<i>Competitors or other enterprises in your sector</i>	71.1	72.5
<i>Consultants, commercial labs, or private R&D institutes</i>	12.2	10.3
Institutional sources		
<i>Universities or other higher education institutions.</i>	7.5	4.9
<i>Government or public research institutes</i>	5	5.5
Other sources		
<i>Conferences, trade fairs, exhibitions</i>	2.7	4.5
<i>Scientific journals and trade/technical publications</i>	5.9	6.4

The companies should indicate for each source whether it had a low, middle or high importance for the generation of ideas for new innovation projects or the conduct of innovation projects during 2010 and 2012 or whether the firm did not use the respective source. The question is only directed at companies with innovation activities. Innovative companies most frequently use information available within their own enterprise or enterprise group for their innovation projects (83.5 per cent

bank, 92.1 per cent telecommunication). Market sources are also widely used. The results showed that: 72.5 per cent of the companies in sector of telecommunication and 71 per cent in bank use information from competitors and both sectors 70 per cent information from suppliers. Only slightly fewer companies retrieve information from scientific journals and trade publications (5.9 per cent banking sector and 6.4 per cent telecommunication sector) and on conferences and trade fairs (2.7 per cent in bank and 4.5 per cent in telecommunication). 7.5 per cent of sector of bank consider universities as information sources. Although innovative enterprises use a large variety of information sources the contribution of specific sources to innovation projects is limited. From analyze, we can say that two sources seem to be most effective. 85 per cent of innovative enterprises declare internal sources as highly important. Customers, suppliers and clients play a highly important role for 52 per cent of companies. These two sources were also most widely used. All other sources seem to be far less important for innovation and their use appears to be less efficient. Between 10 per cent and 15 per cent of the firms get highly important information from consultants, commercial labs, or private R&D institutes per cent of the firms used these sources. Less than 7 per cent of the firms appreciate scientific journals and conferences respectively, as highly important source. The institutional sources universities and public research organizations serve as an important source for 5 per cent and 2 per cent of the firms. It seems that knowledge of the science sector is usually rather far from actual application and not ready to use in companies' innovation projects. More detailed information, broken down into telecommunication and banking sectors, is presented in Table 3.

Conclusions

Today, innovation is an important determinant of development and even the existence of business entities. Innovation becomes a good desired by many "actors" of the innovation stage. Innovation provides competitive advantage to enterprises. For consumers it is a tool to meet their needs, and for authorities it is a factor for the increase of prosperity. Due to the fact that these are the firms that are the main source of innovation it is becoming increasingly essential to recognize the sources of information about implementable products / services and other innovative solutions as well as assess their importance, including their impact on the level of innovation in enterprises.

From analyze, we can say that, the level of product and process innovation is considerably greater in sector of bank. Also the sector of bank introduces in three years more both product and process innovation than sector of telecommunication. The results of product and process innovation showed that: the majority was sector of bank (62.5%) and minority was the sector of telecommunication with 54.5%. Regarding the ongoing or abandoned the innovation, the results showed that: the majority was the sector of telecommunication (15.9%) and the minority was the sector of bank with 6.3%. The result showed that the Innovative companies most frequently were developed by own enterprises or group of enterprises for their product and process innovation (for process innovation 75 per cent bank, 64 per cent telecommunication;

for product innovation 68.8 per cent bank, 57 per cent telecommunication). Today, enterprises can benefit from a variety of sources to obtain information useful in terms of their possible conversion into knowledge and use of this knowledge to start innovation activity. We can say that the most significant include internal sources (within your enterprise or enterprise group employees, intramural R&D) and market sources (in particular suppliers, customers and competitors). Also institutional sources including R&D units, universities and other sources (conferences, fairs, specialized and scientific magazines) but only a small proportion of innovation-active firms considers these sources as significant which is disturbing since it reflects poor cooperation between business and science.

References

- Abrahamson, E. (1991). Managerial fads and fashions: The diffusion and rejection of innovations. *Academy of Management Review* 16 586-612.
- Abrahamson, E. (1996). Management fashion. *Academy of Management Review* 21 254-285.
- Abrahamson, E. (1997). The emergence and prevalence of employee management rhetoric's: The effects of long waves, labor unions, and turnover, 1875 to 1992. *Academy of Management Journal* 40 491-533.
- Abrahamson, E., Fairchild, G. (1999). Management fashion: Lifecycles, triggers, and collective learning processes. *Administrative Science Quarterly* 44 708-740.
- Abrahamson, E., Rosenkopf, L. (1993). Institutional and competitive bandwagons: Using mathematical modeling as a tool to explore innovation diffusion. *Academy of Management Review* 18 487-51.
- Birkinshaw, J., Hamel, G., and Mol, M.J. (2008). Management innovation. *Academy of Management Review* 33 1169-1191.
- Drucker, P.F., 1985. *Innovation and Entrepreneurship*. Butterworth-Heinemann, Oxford.
- Guler, I., Guillén, M. F., and MacPherson, J.M. (2002). Global competition, institutions, and the diffusion of organizational practices: The international spread of ISO 9000 quality certificates. *Administrative Science Quarterly* 47 207-232.
- Hargadon, A. B. (2002). Brokering knowledge: Linking learning and innovation. *Research in Organizational Behavior* 24 41-85.
- Hargadon, A. B. (2002). Brokering knowledge: Linking learning and innovation. *Research in Organizational Behavior* 24 41-85.
- Hitt, M.A., Ireland, R.D., Camp, S.M., Sexton, D.L. (2001). Guest editors' introduction to the special issue strategic entrepreneurship: entrepreneurial strategies for wealth creation. *Strategic Management Journal* 22, 479-491.
- Kaplan, R. S. (1998). Innovation action research: Creating new management theory and practice. *Journal of Management Accounting Research* 10 89-118.
- Katila, R., Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. *Academy of Management Journal* 45 1183-1194.
- Kleiner, A. (1996). *The age of heretics: Heroes, outlaws, and the forerunners of corporate change*. Currency Doubleday, New York.
- Kuratko, D.F., Ireland, R.D., Covin, J.G., Hornsby, J.S. (2005). A model of middle-level managers' entrepreneurial behavior. *Entrepreneurship Theory and Practice* 29 (6), 699-716.
- Leiponen, A., Helfat, C. E. (2005). Innovation objectives, knowledge sources, and the benefits of breadth. Unpublished manuscript, Cornell University, Ithaca, NY. *Management Review* 33(4): 825-845.
- Nonaka I. (2007), *The Knowledge-Creating Company*, "Harvard Business Review", July-

August, <http://hbr.org/2007/07/the-knowledge-creating-compa>

Nonaka I., Takeuchi H. (1995), *The Knowledge-Creating Company. How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press Inc., New York.

OECD, (2005). *Oslo Manual: Proposed Guidelines for Collecting and Interpreting Technological Innovation Data*. Paris.

Oslo Manual. *The Measurement of Scientific and Technological Activities. Guidelines for Collecting and Interpreting Technological Innovation Data (2005)*, Third Edition, OECD/Eurostat, Paris. DOI:10.1787/9789264013100-en (11.01.2013).

Schumpeter, J.A., (1934). *The Theory of Economic Development. An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Harvard University Press, Cambridge

Staw, B. M., Epstein, L. D. (2000). What bandwagons bring: Effects of popular management techniques on corporate performance, reputation, and CEO pay. *Administrative Science Quarterly* 45 523-556.

OECD, (1996), *The Knowledge-Based Economy*, OCDE/GD (96) 102, Paris, <http://www.oecd.org/science/scienceandtechnologypolicy/1913021.pdf>

Utterback, J. M. (1994). *Mastering the dynamics of innovation: How companies can seize opportunities in the face of technological change*. Boston: Harvard Business School Press.