Accounting-based valuation of innovation: challenges and perspectives

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Abstract

This paper presents a study of scientific literature on the valuation of innovation in the area of traditional and modern accounting. Innovations are intangible assets of company that create value in long term, but that value is not always properly recognized as intangible assets. In traditional accounting innovations usually are recognized as an expense and are not covered by the concept of asset as they do not meet the strict recognition criteria. Integrated reporting (as a part of social accounting) could be a way of innovative accounting used to assess innovation from the perspective of the creation of company’s value.

Keywords: Innovation; intangible assets; accounting.

1. Introduction

Innovation as an innovative way of economic growth is widely studied in the business sector taking into consideration its managerial and organizational aspects (Chesbrough, 2003, Fagerberg, Mower, Nelson, 2005), economic aspects (by performing the financial valuation) as well as its developmental and selection aspects (Bivainis, Staskevičius, 2001 Zabielaivicienė, 2009). The study also looks at how important innovation is for competitiveness (Lydeka, Kavaliauskas, 2003; Lin, Huang, 2012). Hall (1992, 1993) and Teece (1998) highlight the importance of the intangible assets as a source of competitive advantage and value creation for business (López, Somohano, Martinez, 2013).

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The topic of intangible innovation is less explored in the area of traditional financial accounting (Canibano, Garsia-Ayuso, Sanchez, 2000; Wyatt, 2001; Mackevicius, Jarmalaite, 2011; López, Somohano, Martínez, 2013). The intangible innovation has a great impact on a company's long-term value creation. Most measurements on company innovativeness have been focused on different types of tangible innovation (Andersson, 2011).

According to legal requirements (IAS 38, BAS 13) investments to intangible innovation are recognised as expenses, thus it is not seen as a long-term competitive advantage.

The aim of this paper is theoretical investigation of accounting-based valuation of innovation.

The study presents a review of scientific literature on the valuation of innovation from the point of view of traditional and modern accounting.

2. Method

The applied classification of innovation consists of seven categories: product, organizational, strategy, marketing, process, technology and management innovation (Stankevice, 2010; Baltisti, Stoneman, 2010; Damanpour, Aravind, 2012; Lindgren 2012 et al.). This classification is wider in comparison with other authors (Schumpeter, 1934; Johne, 1999; Meluzin, 2008; EPSIS, 2013) using the following classification: product, process, market and organizational innovations.

This paper presents the valuation of innovation in the financial, management and social accounting consistent with the chosen classification.

Financial accounting. The asset, which creates the innovative activities, is usually recorded as an intangible asset in the company's financial report (Zabielaviciena, 2009). Legal requirements (IAS 38, BAS 13) define intangible assets as an identifiable non-monetary asset without physical substance, which is controlled by a company expecting to obtain direct and (or) indirect economic benefits from the use of such asset and the cost of which is equal to at least the minimum cost of intangible assets set by the company. Examples of intangible assets include brand names, patents and licenses, copyright and related rights, development activities, computer software, goodwill, emission allowances related to integrated pollution prevention and control (BAS 13, IAS 38). Development activities may result in the creation or development of test samples with physical substance, however the physical element of the asset is secondary to its intangible component, because the main objective is to improve the product, therefore, such expenditure shall be attributed to intangible assets (BAS 13).

Intangible assets should be recognized if the incurred costs meet the definition of intangible assets and the following recognition criteria. These criteria are (BAS 38):

1. The company can reasonably expect to obtain direct and (or) indirect economic benefits from the assets;
2. The acquisition cost of the assets can be reliably measured and separated from the cost of other assets;
3. The company can manage such assets, control them or restrict the right of others to use them.

The key problem related to the recognition of intangible assets is the application of the control criteria. For example, companies much invest in human resources, but cannot control this. Flash Eurobarometer 369 refers that intangible assets are created over time and through investment, and are identifiable as separate assets. They may add value to the company. Intangible assets are increasingly recognized as playing an important role in the growth of developed economies, although their impact has been identified as difficult to quantify.

Management accounting is applied in order to calculate the costs of products, services and other objects including innovation activities (Hansen et al, 2007; Zabielaviciene, 2009, 2012). Companies must account for the materials, labour and other manufacturing costs that are going into building the product or process. Nonmanufacturing costs are not related to the production of good and have two components: selling and general and administrative costs (Drury, 2005; Heisinger, 2009). In the management accounting perspective, innovations are usually included in the costs of sales or recognized as period costs.

Social accounting has a broader and more flexible disclosure boundaries compared to traditional accounting. The topics of social information disclosure are classified into: human resources, human and labour rights, safety of product/service, environmental and social areas (Zhang, Jang, 2008; Lanis, Waller, 2009; Holder- Webb et al, 2009; GRI G4, 2013).

Disclosure of social information in the context of innovation is relevant in the following areas: development of new products and improvement of existing products, choice of consumers (Snieska, Juscius, 2008), customer’s
loyalty for organic products (Grundey, 2009), consumer relationship through product brand (Mohr, Webb, 2005),
safety, quality and environmental impact (GRI G4, 2013; Murthy, 2008; Zhang, Han, 2008). Increasing disclosure of
information about customers, supply chain, investors, and other partners may demonstrate company's transparency
(Dagiliene, Bruneckiene, 2010). One of the most important social accounting quantitative indicators, related to
innovation, is investment for R&D.

Lithuanian Law on financial statements of entities (2008), like in many European countries, establishes
mandatory non-financial information disclosure relating to environmental and employee matters, activities in the
field of research and development in the annual report.

3. Results

The results of valuation and disclosure of innovation in traditional and modern accounting are showed in table 1.
Traditional accounting includes financial and management accounting areas, modern one includes social accounting
area. Because there are not established uniform object in social accounting, so these areas of accounting are
included: safety & responsibility of product/ service, labour, environmental, human rights and social.

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<th>Accounting type</th>
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(+ ) shows disclosure of innovation in social accounting

Product, process and technology innovations can be recognized as intangible assets in financial accounting,
because the criteria of recognition are satisfied. Organizational, marketing, management and strategy innovations
recognized as expenses at the time when they are incurred, are as follows: staff training, advertising and
representation, relocation or reorganisation of the company and etc.

Manufacturing costs cover product, process and technology innovations activities in the management accounting.
Nonmanufacturing costs cover others innovations by administrative costs, with exception of marketing innovation,
which is calculated by selling costs. Administrative costs are related to management of the company, including
human resources and general costs.

Product, process and technology innovations could be disclosed in all fields of social accounting depending on
the activity and the sphere of influence. Organizational, strategy and management innovations could be disclosed
only in human and labour rights and environmental areas.

Innovative marketing ideas and tools should be safe for making a product as well as environment-friendly.
There are no innovations that could be disclosed in social area.

4. Discussion/Conclusion

The value, which is created by innovations in the economic and social life of the company, is disclosed in the
financial, management and social accounting in different ways.
Innovations are intangible assets of a company that creates a long-term value. However, the innovation is not always recognized as an intangible asset in the financial and management accounting. In the perspective of traditional accounting, innovations usually are recognized as expenses and are not covered by the concept of assets as they do not meet the strict recognition criteria.

Financial and management accounting do not provide full information about the value of innovations. In the future perspective, it would be more convenient to provide some comprehensive information for investors and other stakeholders.

It would be much easier to find all the information about financial and non-financial information of the company in one unified report. Integrated reporting (as a separate development of social accounting) is a process founded on the integrated thinking that results in a periodic integrated report by a company about value creation over time. (IIRC, 2010) Integrated reporting could be a new way of accounting to assess innovation from the perspective of the creation of company’s value. Valuation of innovation should be included in the company’s value-added indicators in the short and long term period.

References


