Evidence delivering management accounting

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Introduction

Accounting and its role has been a point of concern since the early industrial years, with consideration given to its role as a language of finance (Coleman, 1949, p. 179) serving management and the public at large in order to understand the financial position of a company. Coleman (1949, p. 183) claims that accountants should be granted the right to interpret, not only to prepare financial statements that represent a picture required by law, not by management. He also points to the difficulty of using just the language of finance to depict the exemplary historic cost and current value of growing timber (p. 182).

Intensive interest in the behavioral approach dominated the field for a long time (Einhorn, 1976; Joyce, Libby, 1981), it was also expressed in the field of management accounting that was depicted as a behavioral process (Caplan, 1966, p. 496) and was followed by a proposal to develop extensive behavioral teaching methods (Castellano, Roehm, 1977). The growing concern and longer debate of the role of management accounting has been triggered by an observation of management accounting’s loss of relevance (Johnson, Kaplan, 1987; Kaplan, 1984, 1985). It has been observed that the business world is being shaped by many external factors like competitive environment, structural changes, innovation, and technological development in data processing. It is further argued that these factors made management accounting integrated into businesses operations. Therefore, what is important, is not the change of the role itself, but instead a deeper involvement into business operations and related information (Baldvinsdottir et al., 2009a, 2009b).

It has been suggested that the role of management accounting evolved from „bean counters” (number crunchers) to a „business partner” position (Baldvinsdottir et al., 2009c). It has further been claimed that management accounting is evolving towards active involvement in the strategic and operational decision making processes in their businesses (Siegel, 2000, 2003a, 2003b). The meaning of management accounting has been underlined with a resource-based view perspective where, it is claimed, that the resources in themselves do not allow a firm to function without measured accountability (Toms, 2010, p. 649). To elaborate, the financial assets of the firm are only one possibility among the forms of resources (Kristandl, Bontis, 2007, pp. 1513–1514).

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On the other hand, there are comments arguing that the role of management accounting is being constantly diminished (Clarke et al., 1999), with fewer personnel involved in operations and with a serving, not a leading role (Cooper, 1996). There is also the question about the theoretical framework of management accounting (Malmi, Granlund, 2009).

This article is meant to be kept on a general, scientific level and to be inspirational rather than applicable in its content. It is also oriented towards formulating hypotheses, not verifying them. The aim of this paper is to propose a role of management accounting congruent with the concept of evidence-based decision making. The method applied is theorizing (Weick, 1995, p. 387; Czarnecki, 2007, p. 16) which leads to formulating hypotheses, and in this particular case, to propose the concept of the role of management accounting. In doing so, the article goes through a description of general, non-interrelated perspectives that finally lead to offering a sensible interpretation, which is an element of the process of theorizing (Weick, 2011, p. 141). The offered hypothesis is a concept of a threefold approach to management accounting and its role.

The article begins by focusing on an evidence-based approach in management and pointing to the limitations of evidence due to bounded rationality. The result is that we base our decisions on intuition, experience or data. However, neither of them are by themselves evidence-based decision making. The article goes further by explaining how the human brain pushes us towards a construct far from evidence: accepting visible factors as significant; accepting cause-effect relationships, accepting that the cause-effect relationship works in a short time span; finally, accepting a so-created hypothesis as the one to be proven. All these assumptions together constitute an unavoidable á priori – a set of factors limiting human perception. With this equipment we go further to see management accounting in the light of unavoidable á priori. The article ends with a concept of a threefold role of management accounting as a discipline in science, as a partner in business, and as a practical activity.

1. Evidence based approach

Let us begin here with a quotation from a philosopher, his text originally written in 1637: „The most widely shared thing in the world is good sense, for everyone thinks he is so well provided with it that even those who are the most difficult to satisfy in everything else do not usually desire to have more good sense than they have (..) this is rather a testimony to the fact that the power of judging well and distinguishing what is true from what is false, which is really what we call good sense or reason, is naturally equal in all men, and thus the diversity of our opinions does not arise because some people are more reasonable than others, but only because we conduct our thoughts by different routes and do not consider the same things” (Descartes, 2008, p. 6). Not earlier than 440 years later, Herbert Simon received a Nobel Prize in Eco-
nomics. The award was granted for his theory of bounded rationality. The decisions we make are satisfying, not rational, and yet there is an assumption and expectation that we should base our judgments and actions on evidence: facts and perceptions that are shared, and that lead to similar conclusions. There is, however, „no expectation that evidence may lead to certainty” (Pfeffer, Sutton, 2007, p. 155).

An evidence-based approach to decision making arrived in the field of management at the turn of the 21st century. Interestingly, it arrived from the field of medical science. It is believed that evidence-based thinking in medicine (evidence-based medicine) originated some time in 1847, when Ignaz Semmelweis postulated that newborn infants’ fever (and later mortality) was produced by the doctors, who had carried germs between dead bodies and the pregnant women. The observation was the foundation for germ theory, which developed and became standardized knowledge forty years later (Rousseau, 2006, p. 258).

Even though the evidence-based practice should be taken for granted in medicine (at least this is what patients would like to believe), there is a multi-dimensional debate about evidence based medicine as to its: meaning (Green, Ellis, 1997; Stuart, 2002), results (McAllister et al., 1999), teaching practices (Green, Ellis, 1997), and actual applications (Provonost, Vohr, 2011), where, in each case, „evidence-based” means „evidence-informed” decision making (Learmonth, Harding, 2006, p. 246).

Evidence-based curiosity has been transferred to management, resulting in more questions than answers. Yet as Stewart puts it „evidence-based medicine has led to (...) a way of thinking that can and should be applied more generally in management” (Stewart, 2002, p. 17). For the beginning, these who address evidence-based management sweetened a bitter pill with observations that medical doctors make their diagnoses and develop therapy on the bases of their personal experience and recollection of the content that has been transferred to them during their studies (Pfeffer, Sutton, 2006). When it comes to management, another sweetener applied is the remark that, contrary to medicine, management is not a formally regulated professional activity. In both cases there is something at stake. In the case of non-evidence-based medicine there is the health and the life of the patient. In the case of non-evidence-based management there is the capital invested in good faith by the stakeholders of an enterprise. Riding on a wave of non-professionalism in management, there comes the explanation that we all live in the world of „half-truths, half-nonsense” (Pfeffer, Sutton, 2006a, 2006b). In fact, a review of the literature up to 2008 reveals that there is no single article on evidence-based management, among over 40 analyzed, that keeps sufficient methodological rigor to represent evidence-based approach (Reay et al., 2009). In essence, there is no evidence that there actually exists in practice something like evidence-based management. There are arguments in favor of it (Reay et al., 2009, p. 11; Rousseau, 2007), there are stories and anecdotal evidence (Reay et al., 2009, p. 11; Hall, Jennings, 2008), systematic questions asked (Zell at al., 2007) and brilliant analyses but there’s no actual evidence for evidence-based management (Reay et al., p. 13).
From the point of view of accounting in general and management accounting in particular, here we arrive at the “end of the line” of thinking. A cry for evidence-based management stops at the general, philosophical level and does not go deeper – to the tools of, methods of or applications of it. It seems natural to extend this thinking to management accounting – a discipline devoted to the measurement of the efficiency of the application of resources that firms use. However, literature on management accounting is empty in this area. It relates to many aspects (later indicated), but not to the possibility of taking management accounting as a natural ally in supporting decisions with an evidence-based approach. In other words, there is an open invitation to fill the gap in an evidence-based approach with management accounting.

In fact, when we assume that an evidence-based approach leads to evidence-based decisions, it is easy, therefore, to see the evidence that a specific medicine kills germs and, at the same time, protects us from disease. It is not so easy, however, to see the evidence that a price increase did diminish sales because drop in sales may have come from other reasons, for example from that that there are other, products in the market with the same price but better characteristics. In both cases there is an assumption implied. In the first one, that germs carry and apply diseases to an organism. In the second, that two products (services, offers) have the same characteristics. In reality, the first assumption used to be tested, and the other one used to be adopted as an axiom. The same is true with management accounting – relationships between data are adopted as axioms in many tools, including a balanced scorecard (Nørreklit, 2000).

From the point of view of the relationship between measured facts and decisions (later management) we have several types of approaches to decision making: intuition-based decision making (management), experience-based decision making (management), data-based decision making (management), and, finally, evidence-based decision making (management).

Management accounting is present in one of them, namely data-based decision making.

Intuition-based decision making comes with a psychological attitude like “nothing may go wrong” or “I know it will be fine”. The Columbia Shuttle disaster happened because everyone intuitively knew that nothing like this could happen. On the other hand, millions of people invest in securities on the basis of their intuition and have success. A key word for intuition-based decisions is luck. Things go in a favorable direction when we are lucky; the more we are lucky, the more we believe in our luck. When we are not, there are always factors that could not have been expected that spoil the idea. There is no need for management accounting in this model.

Experience-based decision making comes from practising, and leads to a psychological attitude like: “I know, I have dealt with that so many times”. Typewriter (Smith Corona) managers knew that people would use typewriters forever because they would not stop writing, leading the company to bankruptcy. On the other hand, the experience of Shell’s managers in scenario analysis resulted in the company’s
Evidence delivering management accounting

(relative) well-being during the oil crises. A key word for data-based decision making is occurrence. Things go in a favorable direction as long as the cycles of events occur often enough, and long enough that we have a chance to see and learn the pattern – once for some people, many for others. When things go wrong, there are always factors that can be pointed to, that had been beyond the decision maker’s control. In both of these cases the decision making (followed by management) are subjective, tied to a person or a group. There is little need for management accounting here, and even if there is, it is just to prove how right the decision was.

Data-based decision making comes from modeling, discovering and identifying correlations, a co-existence of measurable events or happenings which are translated into facts. This method leads to a psychological attitude like: “I know, the numbers tell me”. Three Nobel Prize winners in finance have been involved in data-based activity that was supposed to lead to everlasting success, however it led to disaster. On the other hand, Wal-Mart decided to build its warehouse centers on the basis of an analysis of costs related to the transportation and storage of goods. A key word for data-based decision is measurability. Here come the principles of objectivity: everyone, with the same data, would make a similar decision. When things go in a favorable direction there is proof that the analytical model is correct. The problem here is that the objectivity is not real, and that is because the relevance of data is strong as long as there is an occurrence of patterns of data. The problem is that when things go wrong, this is the model that should be rechecked, redone, remodeled; the danger is that a fear of being blamed builds a temptation to trust the model, and to analyze the facts again, instead. Here comes a need for management accounting that would present data illustrating the adopted models. However, there is no realization that whatever accounting model verifies the assumptions adopted at the very beginning; the assumptions often represent a faith validity approach (Kinley, Ben-Hur, 2013, p. 207) which builds and enforces the claim that the data model does not have to be verified (Kaplan, 1985).

Evidence-based decision making comes from testing a cause–effect relationship hypothesis in the real world through a large-sample randomized controlled trial (RCTs). Here we come again to medicine. Medical procedures have strong evidence basis (e.g. evidence from epidemics). They are later reflected in management decisions on functioning of health care institutions – one example could be a design of operation wards characterized by a limited access, repetitive counting of tools, or one entrance principle. Such approach is not popular in management beyond the health service organizations. There is usually more art than evidence in management. One of exceptions to point to could be safety management in the shipping and oil extraction industries (Håvold, 2007). The key word for evidence-based decision is testing. Measurable resources and their cause-effect relationships could be built, tested and later verified, with management accounting.
2. Decision making modes

There are good reasons for management being far from an evidence-based approach, or a data based approach. We, humans, rarely use evidence, we do not even have a feeling that we do lack evidence, but many of us would swear that we represent a role model of evidence-based management. There are some hard reasons why evidence-based management is out of reach. The main reason for the lack of evidence is the construction of the human brain and its limited abilities to process information (Crick, 1995). The capacity of the mind’s information processing happens to be lower than the amount of inflowing information. The net result is Simon’s bounded rationality: our brain makes simplified pictures of reality, taking pieces and structures as building blocks of cognition and understanding. The brain learns patterns and stereotypes at high speed. We do not read in the sense of following letters, words and sentences. Instead, our brains guess what the letters are in a word by identifying some of them and the length of a word. The same is true about sentences and pages. So called „fast reading” techniques teach how to achieve perfection in omitting evidence – the sequence of letters, sentences, and pages (Crick, Koch, 1997; Crick, Koch, 2002). We begin such an activity in early infancy, learning a few characteristics of our mother’s face, and are soon able to recognize her face, seeing only a fraction of it. In early infancy human brain or human genes choose the objects that are differentiated from the environment, the ones that later are reference points for cognition. From then on, people continue such an ability through their lives, mastering it in the application of the ability to new fields and areas. In fact, in interpreting reality, we work with patterns, fixed routes, and „taken for granted” explanations. In the picture „two vases – two faces,” people see either two vases or two faces. In fact, more information does not constitute better information (Weick, 2001, p. S72). The good news is that we can learn to see differently. In the „two vases – two faces” case it is enough to see white as the background and black as the shape to see the faces; it is enough to see black as the background and white as the shape to see the vases – there is just a different assumption of the mind, not a rebuilding of the brain. Here is the origin of later stereotypical cognition, and explanations that follow cognition. We tend to extend this to the perception of more complicated facts and brain images. In doing so, we follow another great philosopher, David Hume. In his methodological approach of cognition through experimentation, the highest form of scientific truth is the cause-effect relationship between factors. The relationship has to fulfill three conditions to be a cause-effect one: contiguity, priority, and constant conjunction (Hume, 1968, p. 17). The first is proximity, coexistence of the cause and the resulting effect. The second is the sequence in time (cause first, effect second). The third, the continuity of the relationship – whenever a certain, specified cause appears, it will always bring the same effect. The tradition of getting cognition through experimentation, well-established in hard science like physics, chemistry and biology, has its advocates in soft science, like social science, including management. The three-horned dilemma appears in
Evidence delivering management accounting

every piece of research, and „can be viewed as a series of interlocking choices, in which we try simultaneously to maximize several conflicting desiderata” (McGrath, 1981, p. 179), the desiderata being: „generalizability with respect to populations; precision in control and measurement of variables related to the behavior(s) of interest; and existential realism, for the participants, of the context within which those behaviors are observed” (McGrath, 1981, p. 184).

On top of that, there is the question of hypothesizing. Solving problems of whatever nature involves hypothesizing about reality and testing a hypothesis (Smallman, 2006, p. 773). We do that often in everyday life – we test how much of our behavior our parents, or teachers, would bear; we test the hypothesis that fifteen minutes from here to the railways station is enough, and so on. An intuitive approach tells us to formulate a hypothesis, and to prove it (Cortina, 2003, p. 420). It seems like a small methodological error, however, it is not: „big things have small beginnings” (Cortina, 2002). Methodological correctness requires two hypotheses – one to represent the assumed reality (H₀), and the other one, the one to be tested (H₁). This is exactly like it should be in a court of justice: it is the professional duty of the judge to assume that the defendant is innocent (H₀) – a hypothesis to be held. There is another hypothesis – that the defendant is guilty (H₁). In everyday language we talk about proving this or that hypothesis. In the court’s practice the hypothesis of innocence (H₀) is either rejected or there is reason to reject it, when the opposing hypothesis (H₁) has been explored „beyond a reasonable doubt”. The reasonable doubt approach, with its origins in criminal law as a test in criminal justice (Simon, 2012) is also used in business (Blat, Philipich, 2009). Beyond reasonable doubt goes along the lines of everyday logic, if not common sense, with behavioral heuristics when dealing with data: chasing data extremes to what seems normal; congruence (non-congruence) with the other data; congruence (non-congruence of data from other sources); or consistency (non-consistency) of trends in behavior of one particular data (Cortina, 2003, p. 358).

Following Hume’s discovery, and our early experience, our brains tend to automatically accept some major assumptions. The first one claims that situations or events we perceive can be reduced to a handful of explanatory factors. Thus an employee’s low performance can be explained in a simple way, as can a company’s financial results. The second assumption tells us that these factors are around, within easy reach. So an employee often comes late, and financial results go down in July. We follow with the third assumption that makes us believe that events going together do influence each other. Thus, the employee’s late arrivals result in him not having enough time to actually do the job, and people do not buy our goods when they are taking vacations. Finally, we tend to assume that things influence each other, more or less, immediately. An employee, we assume, is a low performer when he is late – even though sometimes it does not come true. There are people and organized groups of people (companies) that follow this way of thinking: the customer who received a gift is more likely to come soon to make another purchase, and, eventually, to become our loyal customer. Reasoning behind such assumptions is in putting together facts mistakenly
taken as evidence: Which of our competitors does not give gifts? What actually is the value of a loss because of the gift giving?

In fact, what we assume is that the evidence is in what we feel it to be (comprehend), that we have identified the factors correctly, that the factors are in a cause-effect relationship, and that a short chain of events prevails. All together the assumptions describe a requirement of Simon’s satisficing problem solution. Bounded rationality produces satisficing solutions (Simon, 1955; Velupillai, 2010) or, as Simon initially named them, satisfactory (Simon, 1955, p. 104).

In reality, when analyzed with methodological rigor, each of the assumptions proves what it is, an assumption taken for evidence. And yet we intuitively, either unconsciously or subconsciously, undertake actions to make another methodological error, which is to make assumptions come true by proving them. The problem begins when we, as managers, go along these same lines in business situations, arriving at non-evidence-based management. In reality, there is a dynamic of a positive or negative feedback loop of seemingly unrelated events that dynamically coexist in long time chains (Forrester, 1968; Senge, 2006), in other words there is a correlation. In the beer game presented in Senge’s book, the players order beer for sale, however they are left with an excessive amount of storage and no cash at hand. The players, Senge explains, usually make the same, wrong assumptions: that what is the factual demand at the beginning will persist for a long time; that having more beer equals selling more beer; finally that the problems and solution to the problems appear in a short time fame (Senge, 2006, pp. 44–49), and more – “they tend to see their responsibilities as limited to the boundaries of their position” (Senge, 2006, p. 18).

3. Unavoidable á priori

It is worth remembering that despite being equipped with all possible tools, methods, and technologies, humans cannot stop themselves from assuming á priori. Unavoidable á priori is always with us, it reveals the cross point of searching for the cause-effect relationship, and shortcuts in the search for evidence of these relationships. At the same time, humans accept satisficing solutions to problems, even if they lead to intuitive-based, experience-based or data-based decisions, not evidence-based decisions. There are still two general observations to be made. The first one related to a paradigm accepted in running businesses, the second related to the use of tools in management. From these comes a conclusion about the role of management accounting.

In the last two decades we have been witnessing a process of dispersion in many aspects of business management, and strategy. Organizations are widely dispersed geographically, personally, and processually (Muethel et al, 2012). The dispersion reached spheres like power (Mainarde et al., 2011), workers and knowledge (Corso et al., 2006), manufacturing (Zhan et al., 2005), and ownership (Kraft, Niederprum, 2009), among others. Dispersion that has happened is not just decentralization, because de-
centralization is connected with making decisions about a scope of action and responsibility (Mintzberg, 1976, p. 209). This is not relocation either, because relocation is a decision about intentionally „sliced” resource allocation (Contractor et al., 2010, p. 1419). Dispersion is a natural process, beyond the decision of any company – the resources are located where they are, the resources are where they have emerged. This is on the companies’ side to build methods to reach resources and to use resources, in order to build their unique capabilities (Garicano, Yanhiu, 2012, p. 1384).

Not surprisingly though, there is a related increase in the use of technological, and managerial tools, including data warehouses or business intelligence that allow the dispersed reality to be better analyzed, assessed and interpreted. Some of these tools can be used with greater precision and appreciation than before, because they are now placed in a different cultural and social business environment. The point is illustrated in an analysis of the Tableau de Bord of 1932 in France, and the Balanced Scorecard of 1992 in the United States (Cheffi et al., 2010). Whereas both tools are fundamentally similar (Cheffi et al., 2010, p. 8), they have distinguishing characteristics on a cultural and social level. The Balanced Scorecard, the authors claim, was introduced into a society that has characteristics of a high level of individuality, is non-hierarchical, has low centralization, respects contracts and is fair. The other social characteristics are that reward is perceived as an opportunity; external professional control is accepted. There is also an increasing level of education in the societies resulting in the belief of, and trust in, managerial professionalism, and the management tools that the managers use (Cheffi et al., 2010, p. 12). This general picture from 1992 has developed even further in the last two decades, making the Balanced Scorecard a tool to be used, and understood, at any level and place of a contemporary organization. These same tools, including the BSC, can be used to integrate an understanding of the processes that are running across dispersed resources multi dimensionally – including risk (Ballou, 2011), social responsibility (Creel, 2012), management, and performance improvement (Gates et al., 2012).

The net result is that, together with the dispersion of tools and knowledge, the methods of management accounting, and behaviors specific to management accounting have also been dispersed. They are now becoming a significant component in business training in any functional area, with the approaches and analytical techniques previously reserved to management accounting specialists. In essence, what happened is a dispersion of management accounting applications across organizations as a routine activity carried out by specialists of different disciplines. When taking into account the transformation of culture and of the social dimension of behavior, this is not bad news as it had previously been perceived (Clarke et al., 1999; Cooper, 1996). On the contrary, management accounting is beginning to have a chance to evolve into the real position of a real business partner (Baldvinsdottir et al., 2009c; Siegel, 2000, 2003a, 2003b).

Meanwhile, the position of management accounting is reported to be getting worse, as can be seen from the results of two surveys (Clinton, White, 2012a, 2012b).
In 1993 Ernst & Young, together with IMA, conducted a 2003 *Survey of Management Accounting* on a sample of about two thousand IMA members. The very same research was replicated in 2012 (Clinton, White, 2012b, p. 37). In the opinion of the commentators of the survey: „Unfortunately, the disturbing findings from 2003 haven’t changed for the better in 2012” (Clinton, White, 2012b, p. 37). It shows from the research that during the ten-year period, management accounting was focused on implementing tools and solutions directly related to financial reporting. The very same message also comes from other sources (Kremer et al., 2000, p. 150; Bettinghaus et al., 2012, p. 6).

It is further stressed in the report (Clinton, White, 2012a, 2012b) that the use of costing tools such as activity based costing (ABC), target costing, theory of constraints, and value-based management went down between 2003 and 2012. At the same time, enterprise resource planning systems, reporting and business intelligence software, and budgeting procedures – relatively old applications – were the only new initiatives in companies that had not had management accounting tools (Clinton, White, 2012b, p. 39). It looks like dispersion is moving on, leading to an enhancement of a practical point of view – with a short perspective aimed at achieving a superior performance. On the one hand, cost management is a key input to strategic decision makers. On the other hand, all the parties involved value most actionable cost information (Clinton, White, 2012a, p. 37). There is also a line of reasoning indicating that management accounting works in favor of the „earning game” – a belief that managing and beating the market’s expectations about next period’s earning will increase shareholder value (di Piazza, Eccless, 2002, p. 4) accompanied with an observation that „accounting is designed to meet fiduciary requirements rather than give transparency to operational performance” (Brimson, Antos, 2004, p. 61).

4. Concluding remarks

In the view of the author of this paper, the role of management accounting appears as a threefold solution, each of them having to do with reshaping unavoidable *à priori*, and, at the same time, having an evidence-based approach in view. The *à priori* trio is located in the assumptions, each of them on a different level of analysis: management accounting as a discipline, management accounting as a business partner, and management accounting as a practical activity.

On the level of management accounting as a discipline, we assume that the methodologies applied by management accounting are good enough to deal with the reality. The problem is, however, that they do address, nor claim to address the cause-effect chain relationship (Malmi, Granlund, 2009, p. 602), whereas the purpose of the theory of, or theorizing in, management accounting is about explaining its causes and effects (Luft, Shield, 2003, pp. 189–193). The role of management accounting in this perspective should be to build theories, or theorizing in the field, taking into account the
Evidence delivering management accounting

changing nature of resources used in business as drivers of competitive advantage. An example of the application could be evidence-oriented research on the influence of transparency provided by the Internet to changing the view of a wrong-doing, bad willed agent who has to be controlled by the principles. Maybe there is room for an evidence-supported cause-effect chain of the influence of transparency that would make it possible to reject an á priori claim about the need of building cost consuming sophisticated mechanisms and tools of governance.

On the level of management accounting as a business partner, we assume that we know the cause effect relationship, so we can provide data for evidence-based decisions. In reality, the cause effect chains are assumed, with no evidence supporting their real existence. There is, however, room for hypothesizing and testing the real relationships in a particular market, industry, or even a single company. In making assumptions, we go along the lines of general trends; with management accounting we may hypothesize and test through informed, large sample, randomized controlled trials. An example of the application here could be building and testing a set of cause-effect chain hypotheses related to a cost model in combining and using – on a short-term basis with a long-term perspective – resources dispersed in various formats. Maybe we would be able to reject an á priori claim about an explanatory force of performance measurement limited to anything that is inside the boundaries of an organization.

This leads us to management accounting as a dispersed resource in itself. On the level of management accounting as a practical activity, we assume all of the above: that the methodology is relevant and, therefore, that it provides data for evidence-based decisions. In a practical application, however, there is no room for building models or theories, or to test cause-effect hypotheses. In a dispersed application of dispersed management accounting there is only the question about measuring the performance of resources. The question whether data illustrates cause-effect or whether what is being measured leads to evidence based decisions, is far beyond the application. The á priori claim here can only be rejected together with the rejection of the method or technique, or data relevance.

5. Implications for future research

It looks like there are lines of reasoning that point to the direction of management accounting supporting the view expressed in the literature earlier: management accounting should be the first field of interest for management because of its role in verifying the use of resources; it should also be based on the logic of a process, not on the logic of a structure. Since resources are unique for a company, so should the model of management accounting in every company be (Czarnecki, 2005, p. 31). Since an organizational structure undergoes many changes, the effort of management accounting should be directed towards the processes of creating value (Czarnecki, 2008, p. 54).
Support for these proposals comes from many directions.

First, management accounting is less about international standards, and more about the effectiveness of the use of resources in a particular organization. Management accounting is about providing evidence that would diminish a private risk enveloped in the firm’s performance with evidence based decisions. Brimson and Anton (2004, p. 61) point to the weakness of accounting that is „designed to meet fiduciary requirements rather than give transparency to operational performance. This is a weakness that dooms the current accounting model to be largely irrelevant”.

Second, in the world of dispersed resources (Ballou, 2011; Creel, 2012; Gates et al., 2012) and an overflow of information (Weick, 2001) the authors stress an increasingly emerging need for getting tools and professional help in obtaining evidence for evidence-based management, and decision making (Malmi, Granlund, 2009).

Third, there is no doubt that management accounting is not just the language of finance as was once claimed (Coleman, 1949). With the ever growing complexity of businesses and their environment, this perspective of financial accounting ceased to be a single one (Kristandl, Bontis, 2007). On the contrary, it has to be supplemented with more effective ways of assessing the efficiency of the use of resources in different forms (Kremer et al., 2000), including accountability measurement (Toms, 2010).

Fourth, there is a call for a theoretical framework of management accounting (Malmi, Granlund 2009; Luft, Shields, 2003) that would make accounting actively involved in the decision making process (Siegel 2000, 2003a, 2003b).

Fifth, the methods of management accounting, and behaviors specific to management accounting – that are resources in themselves – have already been dispersed together with the dispersion of other resources.

The reasoning presented in this paper, kept on a non-practical, inspirational level, can be extended and followed by further research. Management accounting – in the light of the literature – presents itself as a system oriented on data-based decision making. A lack of perception of the discipline as a collection of evidence-based methods invites us to extend our thinking beyond the existing scheme. One path would be to practically test, in real companies, maybe with the use of a questionnaire, to what degree their models of management accounting systems tend to be evidence-based oriented. This is a challenge in itself as the presented above conclusions from the literature review indicate this only to a small degree. The next step could be to develop models on a theoretical level of management accounting related to evidence-based thinking.

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Evidence delivering management accounting

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Summary
The paper aims to propose a role of management accounting congruent with the concept of evidence-based decision making. The method applied is theorizing – building and presenting a model by describing non-interrelated perspectives; interpreting the meaning of a threefold approach to management accounting and its role – a sensible interpretation. The argument leads through an evidence-based approach in management, pointing to the limitations of evidence due to bounded rationality. People tend to base decisions on intuition, experience or data, none of them evidence-based decision making. The article goes further by explaining how humans accept a construct far from evidence: accepting visible factors as significant; accepting cause-effect relationships, and accepting that the cause-effect relationship works in a short time span; finally, accepting so created hypothesis as the one to be proved. The set of assumptions constitute an unavoidable á priori – a set of factors limiting human perception. Equipped with such limi-
tations, people use management accounting as a tool of unavoidable à priori. The article ends with characteristics of a concept of a role of management accounting as a discipline in science, as a partner in business, and as a practical activity.

**Keywords:** management accounting, evidence based management, evidenced based decisions.

**Streszczenie**
**Rachunkowość zarządcza zgodna z koncepcją podejmowania decyzji opartych na dowodach**

Celem artykułu jest prezentacja propozycji roli rachunkowości zarządczej zgodnej z koncepcją podejmowania decyzji opartych na dowodach. Zastosowaną metodą jest teoretyzowanie, w tym przypadku, dokonanie interpretacji nadającej sens. Droga postępowania metodologicznego prowadzi przez przyjęcie trzech niezwiązanych perspektyw (podejście oparte na dowodach, ograniczona racjonalność, rachunkowość zarządcza), interpretacja ich znaczenia oraz budowa i prezentacja trzypoziomowego podejścia do rachunkowości zarządczej. Argumentacja dotyczy postępowania opartego na dowodach, które jest obserwowane z punktu widzenia niedoskonałości, jakie nakłada na nie ograniczona racjonalność decyzji. W rezultacie tego zderzenia, podejmujemy decyzje na podstawie intuicji, doświadczenia lub danych (niekiedy przypadkowych), ale żadne z tych podejść nie jest podejmowaniem decyzji opartym na dowodach. W postępowaniu decyzyjnym i wyjaśniającym, akceptujemy przy tym konstrukcję, która każe traktować czynniki dostępne naszemu tymczasowemu postrzeganiu jako istotne; przyjmować założenie o związku przyczynowo-skutkowym między tymi czynnikami; przyjmować założenie, że relacja taka zachodzi w krótkim czasie; zakładać wreszcie, że tak opracowany zestaw hipotez należy udowodnić. Taki zbiór założeń opisuje nieuniknione à priori ludzkiego działania. Artykuł kończy prezentacja koncepcji rachunkowości zarządczej jako (jednocześnie) dyscypliny naukowej, partnera w przedsiębiorstwie i w codziennej działalności praktycznej.

**Słowa kluczowe:** rachunkowość zarządcza, zarządzanie oparte na dowodach, decyzje oparte na dowodach.