

The Impact of Organisational Learning on Organisational Performance

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Abstract

Purpose: The aim of this article is to analyse the theoretical views and results of empirical research concerning the relation between organisational learning (OL) and organisational performance (OP).

Methodology: The study was carried out through extensive literature research, including relevant literature review from databases such as ProQuest, Elsevier, Emerald and EBSCO (the phrases: “organisational learning”, “learning organisation” and “organisational performance” were searched in the keywords, titles or abstracts).

Findings: From a theoretical point of view, the relation between OL and OP is neither obvious nor clear, but the analysis of the empirical studies allows one to assume that OL has an essential impact on OP. However, differences in the strength of the relation were shown and some contradictions related to the presence of the relation between OL and selected (mostly financial) performance aspects identified. Furthermore, the article discusses the significant differences and inconsistencies in the methods of measuring OL, measuring OP, selecting contextual factors and adopted methods of data analysis.

Implications: Inconsistencies and gaps found in the studies of the relationship between OL and OP made it possible to designate the direction for promising further research.

Value: The article presents valuable insight through its in-depth, critical analysis of the organisational learning and organisational outcomes. First and foremost, this indicates that the formula of the previous empirical studies does not allow for the development of precise solutions pertaining to organisational learning management for the benefit of OP improvement.

Keywords: organisational learning, organisational learning capability, organisational performance

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Introduction

It is commonly believed that functioning in a dynamic, unpredictable, complex and non-continuous environment leads to the search for the sources of the competitive advantage not in specific products, technology or resources but in the ability to develop newer and newer useful knowledge (Grudzewski, Hejduk, 2001; Beer et al. 2005; Cutcher-Gershenfeld, Ford, 2005; Wu, 2010). Moreover, this pertains to the claim that the survival and development of modern enterprises requires learning faster and more effectively than competitors (Santos-Vijande et al., 2012). Organisational learning is also considered to be a mechanism which triggers the conditions for developing a knowledge-based economy (Mikuła et al., 2002).

The purpose of the article is to analyse the theoretical views and results of empirical research concerning the relation between organisational learning and organisational performance. It will be demonstrated that from a theoretical point of view, the relation between organisational learning and organisational performance is neither obvious nor clear. The analysis of the empirical studies allows one to assume that organisational learning has an essential impact on organisational performance, however, there are differences the strength of the relation and some contradictions related to the presence of the relation between organisational learning and selected aspects (mostly financial) of performance. The article discusses the significant differences and inconsistencies in the methods of measuring organisational learning, measuring organisational performance, selecting contextual factors and methods of data analysis.

The study was carried out through extensive literature research, including a literature review from databases such as ProQuest, Elsevier, Emerald and EBSCO. The phrases “organisational learning”, “learning organisation” and “organisational performance” were searched in the keywords, titles or abstracts. The works published from 2005 to 2015 were searched (obviously, the analysis carried out later required including the purposefully selected earlier works).

The results of organizational learning – the theoretical perspective

The relation between organisational learning and the positive results of organisation’s activity has long been an object of the scholars’, managers’ or consultants’ theoretical considerations, with little empirical support (Perez Lopez et al., 2005; Campbell and Armstrong 2007; Imran et al., 2011). From this perspective, this relation is neither obvious nor clear.

On the one hand, the view of the positive influence of organisational learning on organisational performance was arbitrarily assumed. Defining organisational learning or the learning organisation, many scholars emphasised “proper learning” leading to specified results such as the increase in the organisation’s intelligence, the improvement of its knowledge base, the increase in shareholders’ satisfaction, the increase in long-term organisation’s adaptation ability, the improvement of organizational productivity, the more effective activities for customers and partners, the development of the competitive advantage (e.g. de Geus, 1988; Stata, 1989; Dodgson, 1993; Fiol, Lyles, 1985; Huber, 1991; Kim, 1993; Grundy, 1994; Dixon, 1997; Nevis et al., 1995; Schwandt, 1996; Garvin, 2000; Senge, 2000; King, 2001; Grudzewski and Hejduk, 2001). This tendency is particularly visible among the supporters of a learning organisation (Tsang, 1997).

On the other hand, certain studies have shown that non-productive learning cannot be omitted. Organisational learning, analysed from the perspective of a process not a result, can lead to different results; it can also be dysfunctional (March and Olsen, 1975; Kim, 1993; Argyris and Schön, 1996, Kim and Senge, 1994). It has been postulated that organisational learning is desired. However, numerous factors (e.g. cultural, personal, political, structural) lead to the discontinuation of the organisational learning cycles; some models and methods dedicated to the improvement of the conditions which would support learning that is free from any dysfunction have been suggested. It has been suggested is that various types or levels of organisational learning have drastically different organisational results (Pawłowsky, 2001). For example, the results of adaptive learning (single loop) is different from the result of creative learning (double loop) and the compatibility of learning types depends on the dynamics and complexity of the organisation’s reality (Senge, 2000; Śliwa, 2001). Similarly, March (1996) proves that explorative and exploitative learning will produce different results. The essence of explorative learning is the improvement and expansion of existing competences, technologies and paradigms and the results are predictable, close and positive. The essence of exploration is experimentation with new alternative proposals and the results are uncertain, postponed, often negative and not so unambiguously related to a specific activity. Thus, maintaining balance between exploration and exploitation is a key determinant of system survival and development.

The results of organizational learning – the review of empirical studies

The empirical studies verifying the influence of organisational learning on organisational performance are very promising. The analysis of several dozen empirical studies was

the basis for the synthetic conclusions referring to the relations between organisational learning and the organisation's results. Particular attention should be directed to the selected and comprehensive studies of this issue: Baker and Sinkula (1999a, b); Perez Lopez, Peon and Ordas (2005); Prieto and Revilla (2006); Jiménez-Jiménez and Sanz-Valle (2011) and the study by Goh, Elliot and Quon (2012) (they did not conduct their own empirical studies but carried out a meta-analysis of 33 major works). Appendix 1 includes a simplified characteristics of selected studies – those which have been considered most important, those which are more complex as well as those which are emblematic of a variety of approaches to the studies in this field. What dominates are studies which confirm the positive influence of organisational learning on:

- general organisational results (including financial): Baker, Sinkula (1999a, b), Calantone et al. (2002), Ellinger et al. (2002), Perez Lopez et al. (2005), Khandekar, Sharma (2006), Panayides (2007), Hung et al. (2010), Imran et al. (2011), Jiménez-Jiménez, Sanz-Valle (2011), Frank et al. (2012), Ting (2012);
- organisation's innovation: Perez Lopez et al. (2005), Hongming et al. (2007), Lin et al. (2008), Jiménez-Jiménez, Sanz-Valle (2011), Goh et al. (2012);
- strategy effectiveness and strategic flexibility (Santos-Vijande et al., 2012);
- the results of projects (Murray, 2003);
- employees' satisfaction (Goh et al., 2012);
- the results of human resources management (Bhatnagar, 2006).

However, some studies show that the relation between organisational learning and the financial results is not unambiguous (Goh et al., 2012), those showing no relation, for example, Prieto and Revilla (2006) as well as Suliyanto and Rahab (2012) or those, according to which this relation is very weak, for instance, Ellinger and associates (2002), Perez Lopez and associates (2005) or Kocoglu and associates (2012).

Numerous studies show that the relation between organisational learning and its performance has an indirect influence through the impact of organisational learning on innovation (e.g. Baker and Sinkula, 1999a; Hongming et al., 2007; Lin et al., 2008; Pesämaa et al., 2013), market orientation (Bakera and Sinkula, 1999a; Mahmoud and Yusif, 2012) or the practices of human resources management (Lin and Kuo, 2007).

Albeit in the majority of cases, the results of the empirical studies confirm the positive relation between organisational learning and organisational performance, they are significantly different in terms of the strength and character of this relation. Those differences probably result from different methods of measuring organisational learning,

measuring organisational results, the properties of the enterprises under analysis as well as partially from the differences in the adopted methods of data analysis.

The method of measuring organisational learning in the studies on the relation between organisational learning and organisational performance

Most of the previous studies have analysed the impact of the organisational learning processes and learning orientation on the results of the organisation's activity. More seldom is the phenomenon of the organisational learning capability studied.

Learning orientation is measured most of all by a scale offered by Baker and Sinkula (1999a). This concept assumes a limited cultural perspective of organisational learning (it examines involvement in learning, developing a common vision and openness to differences in views). In measuring the organisational learning processes, the scales based on four subprocesses of organisational learning suggested by Huber (1991) (e.g. the scale of Perez Lopez et al. (2005)) are used. In addition, the questionnaire measuring the learning organisation's properties (DLOQ – Dimensions of the Learning Organisation) devised by Watkins and Mersick (1999) is used.

An alternative to the analysis of organisational learning processes is organisational learning capability. It supports *meta-learning* and can consider several factors important for organisational learning which are not the manifestation of the organisational learning sub-processes.² Only in two studies, which examined the impact of the organisation's learning capability on organisational performance, was an empirically verified measurement scale of learning capability adopted: the scale worked out by Jerez-Gomez et al. (2005) which encompasses four dimensions measured by 16 items and the scale devised by Ya-Hui (2008), in which two dimensions are measured by eight items (after: Ting, 2012). Thus, those scales measure learning capability in a simplified way.

The method of measuring organisational performance in the studies on the relation between organisational learning and organisational performance

There is no agreement on the manner of measuring organisational performance in relation to organisational learning (Panayides, 2007; Goh et al., 2012). In the studies quoted in this work, what is mostly taken into account is the financial measures – those measured objectively (return on investment or return on assets) as well as subjectively

² Zgrzywa-Ziemak (2009) points out that such factors can be the development of organisational continuity, system thinking, corporate culture, leadership, organisational structure or strategy.

(profit, income and sales in relation to competitors or their variability in time). Some scholars use non-financial measures such as productivity, market share, flexibility, adaptability, competitiveness, innovativeness, employee innovation, efficiency and job satisfaction.

The following works constitute an important step towards a more comprehensive approach: Jiménez-Jiménez and Sanz-Valle (2011), who have used a multidimensional Quinn and Rohrbaugh's scale (1983), which refers to the four models of organisational effectiveness (usefulness, system, internal processes and interpersonal relations) and Prieto and Revilla (2006), who have adopted the interest group approach.

In previous studies of the impact of organisational learning on the success of organisations, there is a gap which involves an overly simplistic method of measuring an organisation's effectiveness. Thus, it seems essential to adopt such a concept of performance assessment which would assess not only the short-term performance of the organisation but its genuine ability to build a permanent long-term value.

The selection of contextual factors in the studies on the relation between organisational learning and organisational performance

The impact of organisational learning on organisational performance was examined in enterprises of various sizes in terms of:

- size, for example, in small-sized enterprises (Ruiz-Mercader et al., 2006), small- and medium-sized enterprises (Lin et al., 2008; Michna, 2009; Frank et al., 2012; Suliyanto and Rahab, 2012), medium-sized enterprises (Santos-Vijande et al., 2012) as well as large companies (Perez Lopez et al., 2005);
- activity type: production (Santos-Vijande et al., 2012) and service (Pesämaa et al., 2013);
- industry, among others, in high technology enterprises (Hung et al., 2010), in the medical service sector (Pesämaa et al., 2013), in the banking sector (Imran et al., 2011), in logistic companies (Panayides, 2007), in educational institutions (Akhtar et al., 2011);
- ownership form: in private and state-owned organisations (Pesämaa et al., 2013);
- profit orientation, also in non-profit organisations (Mahmoud et al., 2012; Som et al., 2012).

Moreover, the previous studies have been carried out in Europe – in Spain (Perez Lopez et al., 2005; Jiménez-Jiménez, Sanz-Valle, 2011; Santos-Vijande et al., 2012;

Prieto, Revilla, 2006), in Germany (Jiang, Li, 2008), in Austria (Frank et al., 2012) and in Poland (Michna, 2009); in Asia – in India (Jashapara, 2003; Khandekar and Sharma, 2006), in Pakistan (Akhtar et al., 2011; Imran et al., 2011), in Taiwan (Lin, Kuo, 2007; Lin et al., 2008; Hung et al., 2010), in China (Panayides, 2007; Hongming et al., 2007), in Malaysia (Rose et al., 2009), in Singapore (Som et al., 2012), in Israel (Pesämaa et al., 2013); in Australia (Murray, 2003); in Africa – in Ghana (Mahmoud and Yusif, 2012) as well as in the United States (Baker and Sinkula, 1999a, b).

In few studies, contextual factors (*i.e.* organisation's size, age, industry, ownership form, activity type, national culture or environmental properties) were the basis of looking for differences in the relation between learning among the organisations of various properties or functioning in different conditions and organisational performance. However, those differences are significant, as corroborated by the unique studies carried out by Jiménez-Jiménez and Sanz-Valle (2011). They have found that this relation is significantly influenced by such factors as organisation's size, age, and industry or environment turbulence. Other studies (the last studies concerned only SMEs) supporting the above statement are by Frank and his associates (2012), who claim that apart from environment dynamics, environment hostility has an impact on this relation. Thus, larger-scale research, especially from a cross-cultural perspective, would be important.

Research methods in the studies on the relation between organisational learning and organisational performance

The research which analyses the relation between organisational learning and performance on the basis of cases studies can be indicated (*e.g.* Crossan and Berdrow, 2003; Khandekar and Sharma, 2006; Campbell and Armstrong, 2007). However, what dominates are statistical studies (Baker and Sinkula, 1999a, b; Perez Lopez et al., 2005; Jiménez-Jiménez and Sanz-Valle, 2011; Akhtar et al., 2011; Imran et al., 2011; Panayides, 2007; Hung et al., 2010; Pesämaa et al., 2013; Santos-Vijande et al., 2012; Prieto and Revilla, 2006; Lin and Kuo, 2007; Lin et al., 2008). Scholars rarely reach for less advanced methods such as correlations (Martinette and Obenchain-Leeson, 2012), regression analysis (Imran et al., 2011; Akhtar et al., 2011; Sahaya, 2012) or ANOVA (Murray, 2003). Most often, for the verification of the relation between organisational learning and the results of organisations' functioning, structural modelling was used (Ting, 2012; Alegre and Chiva, 2008; Lin et al., 2008; Suliyanto and Rahab, 2012), in particular – confirmatory factor analysis (Baker and Sinkula, 1999a, b; Perez Lopez et al., 2005; Jiménez-Jiménez and Sanz-Valle, 2011; Hung et al., 2010; Pesämaa et al., 2013; Santos-Vijande et al., 2012; Prieto and Revilla, 2006; Lin and Kuo, 2007; Michna, 2009).

Conclusions

The first works on results of the organisational learning were limited to the analysis of the results of organisational learning. At present, the scholars have disregarded the course of particular organisational learning cycles and turned their attention to the analysis of learning the entire organisation and refer to the entire organisation's activity performance.

Many empirical studies proving the positive influence of organisational learning on organisational performance have been carried out. The comparative analysis has shown significant differences in the strength of this influence and even contradictions in the presence of the relation between organisational learning and the selected results (especially financial). Those differences result from variations in measuring organisational learning and organisational results, the properties of the enterprises under analysis or the methods of data analysis. However, what needs to be highlighted is that the previous studies provide a solid basis for assuming that organisational learning has an essential influence on the improvement of organisational results. What is more, it has been confirmed in numerous cultural contexts and types of organisations in a range of industries and conditions.

However, the studies carried out so far are too limited to allow to form a precise solution as regards organisational learning management³ in order to achieve organisational performance. Firstly, the adopted methods of measuring organisational learning (organisational learning processes, learning orientation, learning organization or organizational learning capability), though sufficient for the verification of the relation between organisational learning and performance, are too simplistic to form the basis for developing the methods of organisation improvement. Obviously, several studies offer the methods, techniques or instruments whose aim is to intensify the organisational learning processes (e.g. Argyris, Schön, 1996; Crossan et al., 1999; Garvin, 2000), learning organisation shaping (e.g. Pedler et al., 1997; Senge, 2000) or developing the organisational learning capability (e.g. Ulrich et al., 1993; DiBella et al., 1996; Czerska and Rutka, 1996; Zgrzywa-Ziemak and Kamiński, 2009). However, these solutions have not been related to organisational performance – their influence of the results was arbitrarily assumed. Secondly, only in a few studies were factors other than organisational learning

³ There are also the opinions that the complexity of organisational processes makes them impossible to plan. Looking at the course of organisational learning from the social perspective shows that this process is largely spontaneous (Easterby-Smith and Araujo, 1999). The author of this study agrees with the statement that due to its nature organisational learning must be partly spontaneous. However, it seems possible to specify such conditions which speed up and direct the learning processes. "Learning will always remain a kind of art; however, even artists can perfect the technique" (Garvin, 2000, p. xi). The theoretical basis for such a view is provided by concepts of *meta-learning*, including that of organisational learning capability.

important for shaping the organisational results. For example, Baker and Sinkula (1999a) took market orientation into account; Lin and Kuo (2007) analysed the practice of human resources management. Only in the context of other factors are we able to fully understand the contribution of organisational learning to shaping organisational performance. Similarly, the majority of the studies did not examine the contextual factors which indeed have a significant influence on the selection of specific management methods and techniques. Finally, organisational performance, which was the object of the study, was, as a rule, of very general character and in most cases the studies were related to long-term results and did not allow to holistically assess the organisation's effectiveness.

Further empirical and theoretical studies should focus on developing methods of organisational learning management in order to improve organisational performance.

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Appendix 1. The characteristics of selected studies on the relation between organisational learning and organisational performance

Authors and research purpose	Research method	Key (selected) research results
<p>Authors: Baker and Sinkula (1999a)</p> <p>Purpose: to measure the degree to which market orientation (MO) and learning orientation influence OP, independent of their effect on product innovation (PI).</p>	<p>Learning Orientation measure: an 18-item scale consisting of three sub-constructs: commitment to learning, shared vision and open-mindedness</p> <p>OP measure: a 3-item scale measuring change of sales revenue, market share and profit over the past year relative to the largest competitor</p> <p>PI measure: a 4-item scale evaluating changes over the past three years</p> <p>MO measure: a 20-item scale consisting of three sub-constructs: intelligence generation, intelligence dissemination and responsiveness</p> <p>Sample: 411 companies, USA</p> <p>Statistical method: structural equation modelling</p>	<p>Learning orientation influences OP both directly (very low influence as standardized value = 0.23) and indirectly through its impact on product innovation (moderate impact as standardized value = 0.41).</p>
<p>Authors: Perez Lopez, Peon and Ordas (2005)</p> <p>Purpose: to establish the relationship between OL and OP</p>	<p>OL measure: OL consists of four dimensions (25 items): knowledge acquisition, distribution, interpretation and organizational memory</p> <p>OP measure: two indicators: innovation and competitiveness (7 items) and economic/financial results (4 items). The satisfaction levels with firm's performance were investigated</p> <p>Sample: 195 large companies, Spain</p> <p>Statistical method: structural equation modelling</p>	<ul style="list-style-type: none"> ■ The impact of OL on innovation and competitiveness is quite high (standardized value = 0.53). ■ OL influences financial performance both directly (very low influence as standardized value = 0.2) and indirectly through its impact on innovation and competitiveness (moderate impact as standardized value = 0.37).
<p>Authors: Prieto and Revilla (2006)</p> <p>Purpose: to explore the link between OLC and OP evaluated in both financial and non-financial terms</p>	<p>OLC measure: a 25-item scale consisting of two dimensions: learning flows and knowledge stocks</p> <p>OP measure: stakeholder approach, an 11-item scale consist of non-financial and financial sub-constructs</p> <p>Sample: 111 companies, Spain</p> <p>Statistical method: structural equation modelling</p>	<ul style="list-style-type: none"> ■ The relationship between OLC and non-financial performance is very high (standardized value = 0.827). ■ The direct impact of OLC on financial performance is statistically non-significant. ■ There is a significant relationship between non-financial performance and financial one (0.681).

<p>Authors: Jiménez-Jiménez and Sanz-Valle (2011)</p> <p>Purpose: to verify empirically the relationship between OL and both performance and innovation</p>	<p>OL measure: scale proposed by Perez Lopez et al. (2005)</p> <p>OP measure: scale proposed by Quinn and Rohrbaugh (1983) – 8 items measure open-internal model results, rational model results and human relations model results; the evolution of the performance during the previous three years (decrease/increase)</p> <p>Innovation measure: product, process and administrative innovation (9 items); the evaluation in relation to the largest competitor</p> <p>Moderate factors: size, age, industry and environmental turbulence</p> <p>Sample: 451 companies, Spain</p> <p>Statistical method: structural equation modelling</p>	<ul style="list-style-type: none"> ■ The effect of OL on innovation is stronger (standardized value = 0.66) than its effect on performance (0.26), but innovation influences OP quite strongly (0.57). ■ Size, age of the firm, industry and environmental turbulence moderate these relations: between OL and performance – the relation is stronger for smaller and younger firms, services and in high turbulent environments; between OL and innovation – the relation is more intense in the group of firms that are smaller, older, in high turbulent environments and in the service sector.
<p>Authors: Imran, Rizvi and Ali (2011)</p> <p>Purpose: to find the relationship between OL and OP; and the impact of five major strategies of LO on OP</p>	<p>OL measure: Dimensions of Learning Organization Questionnaire (DLOQ) proposed by Watkins, Mersick (1993)</p> <p>OP measure: an 11-item scale, including both financial and non-financial indicators</p> <p>Sample: 110 Private Banks, Pakistan</p> <p>Statistical method: multiple regression</p>	<ul style="list-style-type: none"> ■ There is significant relationship between OL and OP ($R^2=0.351$; $F=22.6$; $p<0.001$). ■ Only selected LO strategies has a significant impact on OP, namely: continuous learning and empowerment.
<p>Authors: Mahmoud and Yusif (2012)</p> <p>Purpose: to examine the impact of the adaptation of market and learning orientation on NPO performance</p>	<p>Learning orientation measure: a 17-item scale developed by Calantone et al. (2002)</p> <p>OP measure: an 8-item scale were measuring both economic and non-economic performance</p> <p>Market orientation measure: a 20-item scale capturing the generation of, dissemination of, and responsiveness to, information anchored on donors and users or beneficiaries, and other issues affecting them</p> <p>Sample: 118 NPOs, Ghana</p> <p>Statistical method: multiple regression</p>	<p>The results show (among others) a statistically significant and positive relationship between learning orientation and non-economic performance ($R^2=0.265$; $F=37.84$; $p<0.001$) and economic performance ($R^2=0.261$; $F=37.35$; $p<0.001$).</p>

Appendix (Continued)

Authors and research purpose	Research method	Key (selected) research results
<p>Authors: Zandi and Sulaiman (2015)</p> <p>Purpose: to empirically test the relationship between organizational learning and performance in SMEs in the ICT industry in Malaysia</p>	<p>OL measure: a 17-item scale developed by Calantone et al. (2002)</p> <p>OP measure: a developed by Prieto, Revilla, 2006</p> <p>Sample: 278 SMEs, Malaysia</p> <p>Statistical method: confirmatory factor analysis</p>	<p>The findings show that the effect of OL on OP in SME in the ICT industry is very strong (standardized value = 0.91).</p>