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Entrepreneurial Orientation and Firm Performance – Challenges for Research and Practice

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ABSTRACT

Objective: The aim of the article is to critically review the body of literature exploring the nature and various contexts of EO-firm performance relationship, as well as identify contemporary challenges of this stream of research.

Research Design & Methods: The article is an overview of the most important articles of the last two decades of research devoted to EO- firm performance relationship, based on the amount of citation references provided by Ebsco scholar database. The review focuses on: (i) the performance indicators applied in research, (ii) sampling and time frame of the studies as well as (iii) moderating factors of this relationship.

Findings: Despite huge progress made, the review reveals important issues that have been side-lined or neglected and remain to be challenged.

Implications & Recommendations: This paper presents four major suggestions for a more inclusive, broader stream of research: (i) to take inspiration from stakeholder theory, (ii) to spread the research of EO-firm performance relationship across different entrepreneurship contexts, such as social, non-profit and institutional, adjusting scales and measures, (iii) to apply a more dynamic approach to EO-firm performance relationship, and (iv) to diversify the applied research methods.

Contribution & Value Added: The article serves to broaden the scope of EO-firm performance relationship. The discussion presents significant potential contributions brought to EO domain by stakeholder theory. It issues a call to identify and pursue research questions that more effectively address contemporary challenges. Not only does it outline issues and methods worthy of greater attention in future study, but more importantly, leads to extending EO research beyond its current boundaries.

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INTRODUCTION

Entrepreneurial orientation (EO) refers to the entrepreneurial activity of the firm and has been for decades perceived as leverage for market penetration, innovation and new market entry, all of which are associated with enhancing firm performance. Maybe that is why there is a tendency to regard entrepreneurship as something firms should always pursue (Wiklund, 1999). This paper takes a look at perhaps the most obvious assumption in popular entrepreneurship perception: the conviction that entrepreneurship positively effects business performance (Peters & Waterman, 1982). In a study conducted by Andersen (2009) this assumption has been challenged on a number of fields. In a critical analysis of statistically significant relationship between firm-level entrepreneurship with firm performance, Andersen points out that this relationship is not obvious and complicated, calling for caution and not generalizing research findings. Parallel to that, in a meta-analysis of 51 studies, Rauch et al. (2009) indicated a correlation between the two constructs under study to be at 0.242. Similarly to Andersen (2009), these authors also signalled that the relationship is sensitive to different operationalizations of key constructs and contexts.

This paper intends to make a different contribution. Its aim is not to determine whether EO has a positive, statistically relevant, influence on firm performance. It does not aim to determine the level of that relationship. Instead, the driving goal of this review is to critically analyse the body of research devoted to EO-firm performance relationship, identify potential gaps and drawbacks and hopefully propose new approaches to this stream of research.

There are a few reasons why it is important to keep addressing the EO and firm performance relationship. First, as traditionally entrepreneurship has been associated with a mercantile approach, economic models of entrepreneurship are based on the assumption that entrepreneurial activities are undertaken when if it pays off to do so (Benz, 2009). For both start-ups and existing firms entrepreneurship carries the pursuit of business opportunities, the hope of business expansion, profit and wealth creation. As entrepreneurship is a very pragmatic discipline, which findings are expected to be applicable in the real world, researchers owe it to the practitioners to deliver systematic and accountable results in this field. A review of state of the art will assess that duty.

Second, Zahra and Wright (2011) have noted that entrepreneurship research remains fragmented, due to the fact that entrepreneurship scholars derive from numerous disciplines and continue to contribute various perspectives. This problem of fragmentation and group activity dominating over a broad public debate bears the risk of shifting away from what might be the core of entrepreneurship and that is its practical implications relevant to individuals, firms and societies (Shepherd, 2011). This paper is an attempt to bring together existing research and its various perspectives to assess their value and applicability.

Third, it appears that a look at performance measures in entrepreneurial and various organizational contexts is needed. Some authors note that popular measures applied by entrepreneurship scholars do not pay sufficient attention to results achieved by the entrepreneurial process and call for systematic measurement and richer indicators (Zahra & Wright, 2011). Given the expansion of entrepreneurship theory over areas of social and non-profit undertakings, this suggestion seems extremely up to date.

A look at different aspects of performance is needed. This paper will suggest broadening the spectrum of performance measures applied in EO research.

Finally Hughes and Morgan (2007) suggest that an important challenge facing entrepreneurial firms is how to maximize the various benefits deriving from their EO practice. It is therefore crucial to establish the benefits for which undeniable empirical evidence exists as well as factors moderating the impact EO bears on firm performance. It is just as important to suggest new avenues of exploration, for the benefits that we sense exist, but where research does not provide enough evidence.

The main question driving this study is: what are the performance parameters that are affected by corporate entrepreneurship and which of these have been empirically tested? And consequently: which performance parameters have not been tested enough or not addressed at all? Ultimately it poses the question of where is the EO-firm performance relationship going. This seems to be an important issue in the perspective of research responsibility. It is highly likable that the performance we, as scholars, are exploring and testing defines to a large extent how the role of EO is perceived: as a money making machine or as a management approach practice that can and should benefit numerous areas of company performance and equally its numerous stakeholders.

LITERATURE REVIEW

The Promise of Entrepreneurship - Why Firms Adapt an EO?

There has been lately some discussion about the terminology regarding firm level entrepreneurship (Dess & Lumpkin, 2005; Covin & Lumpkin, 2011; George & Marino, 2011). This paper adapts the terminology of entrepreneurial orientation, when referring to firm-level entrepreneurship, as Covin and Lumpkin (2011) note that the concept of EO is well established as a focus of scholarly attention and is a construct used increasingly often when referring to firm-level entrepreneurship. Their analysis revealed that among papers published between 2008 and 2010 in this domain, 109 adapted the term 'entrepreneurial orientation', while only 66 studies followed the term 'corporate entrepreneurship'.

In spite of the fact that earlier publications (Zahra, 1993; Dess & Lumpkin, 2005) suggest that entrepreneurial orientation (EO) represents a firm's orientation toward, rather than actual entrepreneurship behaviour, up-to-date publications imply that "occasional exhibition of firm-level entrepreneurial behaviour is insufficient to infer the existence of an EO" (Covin & Lumpkin, 2011, p. 858). The following article follows that line of thought and considers EO to consist of sustained behavioural patterns, which presence enables entrepreneurship to be recognized as a defining attribute of the organization. These specific behavioural patterns are frequently viewed as consisting of three dimensions: innovation, risk-taking and proactiveness (Miller, 1983). Viewed collectively, they constitute a composite construct indicating a firm's overall level of EO (Covin & Slevin, 1991). The traditional 9-item Miller/Covin and Slevin scale incorporated items that reflect both dispositions and behaviors manifested by organizations at different strategic business units (Covin & Lumpkin, 2011). This article recognizes these widely applied dimensions and acknowledges the line of thought of George and Marino

(2011) continuing with the three-dimension definition, which has been used by the majority of researchers, to maintain consistency and avoid confusion within the field.

Performance, on the other hand, has been defined by the Mirriam-Webster dictionary (merriam-webster.com) as the fulfillment of a claim, promise, or request. There is no consensus to what firm performance is. Firm performance in its broadest sense as the outcomes of organizational activities can be characterized in financial and non-financial parameters (Chenhall & Langfiels- Smith, 2007).

Financial performance is often measured using traditional accounting key performance indicators (KPIs) such as sales growth, return on assets or return on sales. The advantage of these measurements is their general availability, since every profit-oriented organization produces these figures for the yearly financial reporting. However, balance sheet manipulations and choices of accounting methods may also lead to values that allow only limited comparability of the financial strength of companies (Chenhall & Langfield-Smith, 2007). The non-financial performance can be measured using operational KPIs. Market share, innovation rate or customer satisfaction are prominent examples. Some non-financial parameters pose a challenge, since there are no universal indicators of, for example, company's social performance. Thus many researchers use self-reported measures to operationalize performance (Chenhall & Langfield-Smith, 2007).

EO-firm performance relationship has always been at the heart of EO research. Research into the nature, determinants and effects of firm level entrepreneurship has grown rapidly ever since 1980ies. The coexisting convictions regarding EO are rather completing than competing, all referring to the identification, evaluation and pursuit of opportunity (Stevenson & Jarillo-Mossi, 1986; Jones & Butler, 1992; Shane & Venkataram, 2000). Opportunity is referred to as the dominant thread in current entrepreneurship research (Venkataram & Saravathy, 2012) and EO is no exception. It is the opportunity for various future gains. The potential ways in which entrepreneurial activities enhance the overall firm performance have been recognized and depicted by EO literature.

First and foremost, opportunity being advantageous circumstances carries the possibility of profit gains. Shane and Venkataram (2000, p. 220)define entrepreneurial opportunities in a Schumpeterian tone as "those situations, in which new goods, services, raw materials and organizing methods can be introduced and sold at greater than their cost of production". Recently Shane has explained that this definition does not imply that entrepreneurship requires profit generation, but only indicates the possibility: "our definition suggests only that the probability new goods, services, raw materials and organizing methods could be introduced and sold at greater than their cost of production exceeds zero" (Shane, 2012, p. 15). This definition clearly implies potential profit gains as the dominating motive for entrepreneurial opportunity exploitation. Economists very early identified the entrepreneur as bearer of non-insurable uncertainty and thus legitimized the profits collected by him (Say, 2007, p. 110). Although the majority of scholars agree that entrepreneurial opportunities cannot always be profitable (Singh, 2001), it is clear that profit probability is one of the most important motivation factors for entrepreneurial undertakings and so EO has been traditionally associated with improved financial performance and wealth creation.

As "growth primarily results from the location of new markets and the development of new products" (Miles & Snow, 1978, p. 57), the second potential benefit of EO is market or product leadership. Most authors agree that the essential act of EO is new entry, which is accomplished by entering new or existing markets with new or existing goods or services (Lumpkin & Dess, 1996, p. 137). Other market relevant gains noted by authors refer to market or product leadership (Ireland et al., 2001), competitive advantage, increased market share (Haber & Reichel, 2005). All of these ultimately lead to future profit gains, although in the short term profitability might suffer.

All of the above listed potential gains have its financial bottom line; they all serve the purpose of enhanced short-term or long-term financial performance. Yet, an emerging body of research provides insight into non-financial motivation of organizations engaging in EO. Luke et al. (2007) have identified additional gains that organizations hope to achieve engaging in EO such as creation of new competencies or establishing new relations. This is consistent with findings that firms which want to launch innovation often develop networks of partners teaming with new ventures, universities, research labs and institutions (Hitt et al., 2011). These partnerships help exchange and develop new know-how and new competencies. Generally speaking, EO plays a notable role EO in organizational learning (Wang, 2008). It has often argued that entrepreneurial behaviors of firms contribute significantly to increased learning within organizations (Dess et al., 2003), As organizational learning is a valuable strategic factor helping to develop new competencies and leading to enhanced overall performance (Grant, 1996), it presents a strong argument for engaging in these practices for firms.

There is yet another factor that firms take into account when pursuing EO and that is to create social value and address social or environmental needs. Morris et al. (2011) suggest that the social purpose motivation of organizations is a factor too often overlooked by scholars. Firms may practice corporate venturing for non-profit reasons. These new ventures are often a part of their CSR programs, often initiated and developed by their employees and are referred to as 'corporate social entrepreneurship'. Entrepreneurship works across different settings and aspects of human activity and offers the opportunity to improve firms, societies and their environments. For the companies that do engage in social change, it is necessary to measure how corporate venturing impacts all aspects of their performance.

As EO research has spread over numerous settings and contexts, including international (Luke et al., 2007), institutional (Maguire et al., 2004), academic (Laukkanen, 2003) attention is drawn to a much more complex set of motivation factors engaging in firm level entrepreneurship, such as creating stakeholder value or improving public image (Lumpkin & Dess, 1996) and employer branding (Morris et al., 2011). Hence, there is a number of potential motivation factors identified by the literature for which organizations engage in EO, as it holds the potential of many areas of growth and development. That is the promise of entrepreneurship. All of the mentioned motivation factors are aspects of the firm's overall performance, since all of them affect the value of the company. The literature overview assess whether all the above mentioned aspects of firm performance have been addressed and included in the EO–performance relationship research.

The Effects of Firm Level Entrepreneurship: State of Research

The first contemporary empirical insights into the EO-firm performance relationship were exploratory in character and raised questions rather that provided answers, for example a pioneer study by Zahra in 1986. The positive association encouraged further research, provoked discussion and provided worthy conceptual contributions. The research that followed was mostly explanatory, of empirical character often adapting the contingency perspective. This papers reviews a vast body of empirical research devoted to exploring the EO-firm performance relationship. The study analyzes the studies according to the following criteria: employment of various and diversified firm performance indicators, geographical setting of the research samples, time frame, methods employed and tested moderating factors.

Performance Parameters

In the course of investigating EO and firm performance relationship, existing research reflects a clear focus on financial performance. Sales growth clearly stands out as the most common and widespread indicator of firm performance, much widely employed than profit growth. This occurs for a number of reasons. Since EO often involves costly venturing into dynamic markets, it might increase company sales, even though profits may suffer (Zahra & Garvis, 2000). Moreover, EO often involves R&D long-term investment and innovation effecting negatively short-term profitability. Furthermore, sales growth is very likely to be driven by increased demand for the firm's products or services (Wiklund, 1999). An insightful meta-analysis conducted by Rauch et al. (2009) revealed the correlation between EO and growth at a level of 0.245 and the correlation between EO and profitability at .259.

It is a common practice among researchers to examine growth and profitability jointly (e.g. Antoncic, 2006; Kreiser & Davis, 2010), as well as introducing other financial performance measures. As noted in the 90ies, entrepreneurial activity may at times lead to different outcomes in various performance dimensions (Lumpkin & Dess, 1996) and since single financial indicators of performance portray a very narrow area of performance, most of the papers rely on three or more financial indicators. Authors attempt to capture not only the growth, but the development of the firm as well. Return on assets is most commonly employed measure of development driven investment. Authors argue that ROA reflects the redeployment of firm's assets in innovative ways (Zahra & Garvis, 2000).

Another way of tackling the problem of fragmented financial performance measurement is suggested by Vozikis et al. (1999), who suggest a model of evaluating EO impact on firm performance through additional value creation: greater than expected dividend growth rate. These authors merge efficient market theory and financial theory with EO to suggest that corporate entrepreneurial activities are more accurately evaluated by the market stock value. They argue that "market valuation takes into consideration all EO actions such as risk- taking, innovativeness and how EO activities are actually managed" (Vozikis et al., 1999, p. 41), as opposed to single dimension investigations that accounting measures provide. This logic was followed by Antoncic and Hisrich (2004) in including wealth creation as a complementary measure of firm performance to growth and profitability.

Since EO has been traditionally associated with new entry and competitive advantage, market performance is another indicator that remains a center issue for a number of authors. Zahra and Covin (1993) found that firms adopting EO were faster to the market due to shorter product and business model life cycles, which is consistent with early findings of Miles and Snow (1978, p. 62), who found that entrepreneurial firms follow the sequence of evaluate-act-plan, suggesting that their time of stepping into action is critical for future success. The commonly used indicators of market performance are market share growth (Obłój et al., 2010) and competitive advantage (Covin & Miles, 1999). These are however applied as complimentary measures of performance; no research relies solely on market measures for evaluating performance.

Many researchers have used subjective comparisons with competitors' performance within the same industry. This information, whenever accessible, provide background information on market trends (Madsen, 2007). EO engaged firms are expected to show growth patterns that differ substantially from their industry standards. Above average industry growth suggests superior performance and validates other financial performance measures.

Interestingly, only one of the reviewed studies incorporated relative employment change as one of performance parameters (Madsen, 2007). Employment, as an important aspect to capture, is problematic in EO context, since there is to some extent an inverse relationship between capital investment and employment growth, suggesting employment growth of assets should be measured at the same time.

Concluding, the existing body of research suggests that EO leads to higher performance. However the strength of this relationship varies among studies, with a moderate level on average.

Sample, Geographical Context

Most past research into EO-firm performance relationship has been conducted in the U.S. or by U.S. researchers. Within that body of research very few studies research international EO influence on performance (Zahra & Garvis, 2000). Only a few studies have been published using data from non-US companies in the 1990ies. The last decade has brought significant change in this area and publications from various countries have appeared, including data from transition economies and developing countries. A growing body of research has emerged from European countries including samples from Sweden (Wiklund, 1999), Norway (Madsen, 2007), Spain (Lim et al., 2008), The Netherlands (Van Doorn & Volbeda, 2009) and Austria (Frank et al., 2010). Research in Central and Eastern Europe is still very scarce (Antoncic & Hisrish, 2004; Antoncic, 2006; Obłój et al., 2010) and suggests that western theory and predictive models on EO and firm relationship may not be as powerful in all international contexts. Similar findings derive from South Africa (Goosen et al., 2002) and China (Tang et al., 2007). Studies comparing data form various countries, focus on EO initiatives within multinational organizations (Birkinshaw, 1997) or US companies pursuing EO in foreign markets (Zahra & Garvis, 2000). The fact that there is very little studies comprising of samples from different countries can be explained by a recent comment made by Miller (2011) that the demonstration of entrepreneurship would vary depending on the context and different sets of influences. This suggests that the EO-performance relationship is context sensitive. A noteworthy attempt to address EO complex nature was a replication study conducted by Frank et al. (2010). These authors replicated the work of Wiklund and Shepherd (2005) in a different national context.

Moderators

Since the mid-1990s the research devoted to EO and firm performance relationship took a shift towards a contingency approach. In 1996 Lumpkin and Dess argued that "the relationship between EO and performance is context specific and the dimensions of EO may vary independently of each other in a given context" (1996, p. 136). These authors proposed alternative contingency models for testing the EO-performance relationship. This proposed framework was followed by a study extending the theory to configurational approaches that align EO, environment and performance (Lumkin et al., 1997). These efforts impeded expansion of research and testing the influence of a broad spectrum of variables. Numerous publications from the last two decades investigate the contingency factors and test different moderators of EO-firm performance relationship.

The primary contingency factors examined focused on environmental hostility (e. g. Zahra & Garvis, 2000) and heterogeneity (Dess, Lumpkin & Covin, 1997). Attention has also been given to internal moderators, most of which were associated with firm resources (Obloj et al., 2010), organic structure (Lumpkin & Dess, 1996), autonomy or/and managers' traits such as need for achievement, tolerance for ambiguity and change (Goosen et al., 2002; Todoronic & Schlosser, 2007). Some work was done to capture the moderating effect of marketing factors (e. g. Barrett et al., 2000) concentrating on the new entry notion of EO. Among soft moderators the most common are: organizational culture and social capital (Stam & Elfring, 2008). Recent works explore various internal and external contingency factors of a moderating character, as well as the dynamics of EO-firm performance relationship. Rauch et al. (2009) in a meta-analysis of 51 studies included three contextual moderators of the EO-firm performance relationship: national culture, type of industry and size of the firm. Their findings suggest that examining EO-performance relationship in another country, does not provide sufficient value added, as the meta analysis did not reveal any statistically significant differences between continents. The first moderating factor these authors were able to code was industry type, providing statistical evidence that high-tech industries benefit more from pursuing EO than low-tech firms. The tests also revealed that micro business exposed a stronger EO-performance relationship than larger units, since they are more flexible and quicker to act upon arising opportunities. Yet the examination of the sampling error variance indicated the presence of additional moderators.

Concluding, contingency theories are fundamental to develop organizational sciences by recognizing the importance of fit among key constructs (Burns & Stalker, 1961). The existing works, however, do not always bring clarification to the EO-performance relationship problem, but rather prove that the addressed variables form complex combinations of relationships. Many times, statistical evidence is not strong enough to support the hypothesis.

Methods Employed

Researchers have made extensive use of mail surveys in collecting data. Self-perceived performance measures clearly dominate EO research. Reliance on single respondent surveys has been combined, in a minor number of cases, with senior managers interview data (Van Dorn & Volberda, 2009) or archival data collected from secondary sources. Most studies have adapted the traditional testing of hypothesis approach and relied on statistical analytical tools in data examination. Case study methods have been sidelined, which is surprising given the multidimensional nature of both EO and performance constructs, as well as the interconnectivity of various performance indicators. An early case study of EO effects on performance was conducted by Kuratko et al. (2001), after which qualitative research was downsized to occasional interviews serving a complimentary role for respondent surveys.

Time Frame

The works of the 1690s agreed that EO is a long term phenomenon and there is much uncertainty regarding the time horizon over which EO activities can be expected to yield positive returns (Block & MacMillan, 1993). Some authors follow that suggestion by conducting longitudinal studies, which involved collecting data over a longer period of time (Zahra & Covin, 1995; Wiklund, 1999; Madsen, 2007) confirming the hypothesis that EO- performance relationship increases over time.

Table 1 presents an overview of the most important articles of the last two decades of research devoted to EO- firm performance relationship.

MATERIAL AND METHODS

To address the research questions the paper first portrays an array of potential benefits listed by the existing literature that EO can bring to the firm to enhance its performance. Then it presents a synthetic analysis of EO and firm performance relationship research based on an overview of the most important articles of the last two decades devoted to EO- firm performance relationship. The choice was based on the amount of citation references provided by Ebsco scholar data base, as well as the inclusion of the articles in previous critical assessments of EO-firm performance relationship research (Andersen, 2009; Rauch et al., 2009). Only these articles were covered by the study, which specifically analyzed or tested the EO-firm performance relationship.

The review focuses on the following aspects of this stream of research:

1. Performance indicators applied in research assessing whether all of the identified aspects of firm performance have been addressed and included in the EO–performance relationship research.
2. Sampling and geographical context of existing studies.
3. Moderators of EO-firm relationship that have been tested up to date.
4. Methods applied in studies (quantitative vs qualitative).
5. Time frame of the studies.

The overview and evaluation of leading studies documenting EO various performance outcomes aims at assessing the progress made as well as revealing potential aspects of firm performance, which have been neglected in the up to date research. The findings

Table 1. Articles included in the research

Year and author	Focus	Sample/method*	Conclusions
Zahra (1986)	EO impact on firm financial performance	59 US companies from Fortune 500 list, five industries ROI and net income-to-sales ratio as financial performance indicators	Reveals multidimensional nature of the EO-performance relationship
Covin (1991)	Identification of strategy patterns and performance levels of conservative and entrepreneurial firms	111 small US manufacturing firms Subjective self-reported financial performance indicators	Evidence for higher financial performance among entrepreneurial firms
Zahra (1993)	Environmental influence	102 US manufacturing companies	Suggests environmental hostility moderates EO-performance relationship
Zahra and Covin (1995)	Contextual influences on the relationship, longitudinal study (7 year period)	69 US manufacturing companies, 50 chemical companies, 59 Fortune 500 corporations Annual secondary data: ROS, ROA	EO and environmental hostility interact to determine firm financial performance and this relationship holds over time
Lumpkin and Dess (1996)	Contingency variables related to EO-performance relationship	Review of literature	Proposition of alternative models for testing the OE-performance relationship; multiple contingency variables: structure, strategy, strategy-making processes, resources, culture, top management team characteristics, environment and industry
Dess, Lumpkin and Covin (1997)	Testing the predictive power of two approaches of exploring EO–firm performance relationship	32 US firms, various industries Subjective self-reported data as performance indicators: sales growth, profit growth and ROI over last five years	Configurational approaches that align OE, strategy and environment have greater predictive power than contingency approaches
Birkinshaw (1997)	Results of EO subsidiary initiatives	39 initiatives from six subsidiaries of multinational organizations	Importance of qualitative measures of EO initiatives: local responsiveness, worldwide learning and global integration
Covin and Miles (1999)	EO typology	Review of literature, conceptual paper	EO often produces superior firm performance due to various forms of EO can serve as a base for competitive advantage, problem of fit between EO forms and competitive context
Vozikis et al. (1999)	Linking EO to financial theory, moving beyond accounting measures	Conceptual article	Model of evaluating EO impact on firm performance through additional value creation: greater than expected dividend growth rate
Wiklund (1999)	Sustainability of EO and firm performance relationship	Sample of 132 small Swedish firms, data collected over 3 consecutive years Seven-item scale of performance; three financial and four growth measures (compared to competitors).	Findings support positive EO-performance relationship with access to capital having largest positive influence on this relationship
Barrett et al. (2001)	Moderating effect of marketing mix factors on EO-firm performance relationship	142 US firms Performance measured by two judgmental questions.	Marketing mix factors moderate EO-performance relationship for large industrial firms. EO more important to business performance as firms increase in size.
Zahra and Garvis (2000)	Global expansion, international corporate entrepreneurship	98 U.S. companies	Identification of rewards and risks of international corporate entrepreneurship. Superior performance is moderated by hostility of international business environment.
Kuratko, Ireland and Hornsby (2001)	Building a successful corporate entrepreneurship strategy	Single case study	Factors enhancing performance in entrepreneurial drive: venture teams, involvement, adequate compensation systems

Goosen et al. (2002)	Testing the relationship in South African context	90 Johannesburg Stock Exchange listed companies Four accounting measures of performance.	Positive performance outcomes associated with management practices
Sadler-Smith et al., (2003)	Testing relationships between managerial behaviors, EO and sales growth	550 UK SMEs	Managerial focus on performance negatively related to EO
Antoncic and Hisrich (2004)	Contingency testing	477 Slovenian firms	Confirmation of prior research findings
Wiklund and Shepherd (2005)	EO impact on performance	465 Swedish SMEs Performance measured by profit growth in three consecutive years	Small business performance depends on EO and access to financial capital
Jantunen et al. (2005)	Aligning EO, dynamic capabilities and international performance	217 Finnish manufacturing and service firms	Stressing the role of capabilities reconfiguration
Antoncic (2006)	Diversification in EO strategy making linked with performance – normative model	449 Slovenian firms	Western theory and predictive models may not be as powerful in all contexts (transition economies)
Tang et al. (2007)	Impact of ownership type on the relationship	166 Chinese firms	Confirms prior research, stronger relationship among state-owned firms
Madsen (2007)	Hypothesis developed to test changes in EO over time (three years)	168 Norwegian SMEs Performance compared to competitors and employment growth.	Long term performance affected by inimitable resources
Lim et al. (2008)	EO impact on performance	374 Spanish firms, transport sector	Systematic short term practices as a moderating factor of EO-performance relationship
Andersen (2009)	Critical analysis of past research	Literature review	EO-firm performance complicated and general correlation challenged by author
Kuratko et al. (2009)	Correlates of corporate venture performance	72 US firms, 145 internal corporate ventures	Qualitative data on factors influencing corporate venture performance
Van Doorn & Volbeda (2009)	Role of senior management	346 firms in the Netherlands	Senior management team as important moderator
Rauch et al, (2009)	Meta-analysis	53 samples form 51 studies	EO related with performance at r=.242
Obloj et al (2010)	Dominant logic	97 Polish firms Subjective measures of performance	External orientation, proactiveness and simplicity of routines positively influence the EO-performance relationship
Kreiser and Davis (2010)	Model of sub-dimensions of EO and firm performance	Conceptual paper	Organizational structure will moderate the relationship between EO sub-dimensions and firm performance
Frank et al. (2010)	Testing both contingency and configuration model – replication study	85 Austrian SMEs Sales growth and cash flow growth compared to competitors (subjective measures of performance)	EO not a universal tool, relationship influenced negatively by a mix of hostile environment and low access to capital
Engelen et al. (2012)	Moderating role of leadership behaviors	790 SMEs from six countries	Regardless of national setting, four leadership behaviors positively affect EO-firm performance relationship
Wales et al. (2013)	Moderating role of capabilities	258 Swedish SMEs	Communication technology and network capability determine the returns of EO to firm performance

*Lack of information implies use of quantitative methods of analysis (statistical testing and/or regression modeling)
Source: own study.

will hopefully not only identify issues and methods worthy of greater attention in future study, but, more importantly, lead to extending EO research beyond the boundaries of the existing matrix.

RESULTS AND DISCUSSION

The review confirms that there is no consensus on the measurement of firm performance. Performance is a wide term provoking questions rather than giving obvious answers. Performance is multidimensional in its nature, each of its aspects revealing important and unique information (Lumpkin & Dess, 1996; Wiklund, 1999), perceived, and therefore defined, differently by the many parties involved in firm activity (owners, top management, middle management, employees, customers). All performance parameters employed in EO-firm performance relationship stream of research supply complementary information.

The EO-firm relationship research has focused so far predominantly on financial indicators of firm performance providing significant proof for positive performance implications, yet not avoiding some conflicting results (Rauch et al., 2009). The variation in the strength of reported relationships clearly suggests that they are affected by moderators. Contingency models and testing of various moderators remains within the main stream of EO-firm performance research. Several observations emerge from literature analysis, followed by suggestions of what issues need greater attention in the future.

Embrace the Larger Picture

In the body of research revised for the purpose of this article, firm performance has been predominantly assessed by growth and profitability measures. Often authors have combined various financial performance measures into an overall performance indicator. This has been challenged in the past by Murhy et al. (1996) and Andersen (2009) noting that a much more accurate assessment of EO influence on performance would derive from testing the relationship between EO and a given single performance dimension, reducing the number of conflicting results. This call has not been recognized widely by scholars, in spite of the obvious conflicting results EO might bear on sales growth and short-term profitability. It is important to understand which performance dimensions are influenced by EO and how.

Moreover, while financial indicators have been widely applied and tested in various configurations, not enough attention has been given to non-financial aspects of performance. It has been recently argued by Zahra and Wright (2011) that entrepreneurship research needs to challenge the taken-for-granted assumptions about entrepreneurship and entrepreneurs, to move beyond research that fills in potholes in an often travelled and well known path. These authors suggest the need for “creative reconstruction” in the field that will bring about a shift in entrepreneurship research focus (Zahra & Wright, 2011, p. 69). This paper suggests that it is time to reconstruct the performance measures, to make this stream of research more inclusive, investigating a wide spectrum of performance measures that can be affected by EO. It is important to capture and evaluate all aspects of performance, since “the complexity of managing an organization today requires that managers be able to view performance in several areas simultaneously" (Kaplan & Norton, 1992, p. 72). The authors of The Balanced Scorecard go on to note that: "traditional financial measures […] can give misleading signals for continuous improvement and innovation" (Kaplan & Norton, 1992, p. 71). They argue that when measuring performance, it is equally important to adapt the financial perspective, as it is to adapt the customer perspective, innovation and learning perspective and internal perspective. It has been noted at the beginning of this paper that according to the literature suggestions, EO can affect numerous aspects of the firm's performance, including customer satisfaction, public image, corporate social performance or employee satisfaction. Regretfully, these measures of performance are not included in the existing main stream body of research. The landscape of EO research is changing, new areas of EO are emerging (e.g. corporate social entrepreneurship) and new measures of performance will surely enrich the research. Broadening the spectrum of EO-firm performance research can be pursued along three avenues.

First of all, by exploring this relationship in various contexts. In the EO approach employed for the purpose of this article, EO is a phenomena, which is not limited to any specific type of organization, taken size, scope or organizational form. Instead, it is a universal firm-level phenomena, which is demonstrated by the behavior of the firm in opportunity recognition and exploitation, in introducing innovation, creating new organizations or instigating organizational renewal. Entrepreneurship research has gained significant momentum and has spread over many different contexts. Each of these contexts, whether non-profit, institutional, academic or other, present its own set of performance parameters. For example, non-profits do not distribute revenues as profits. What's more, their revenues are often received beforehand and do not derive from the beneficiaries of their activities, but rather government funds, foundations, sponsors etc. Furthermore, EO scale has been seldom adapted to reflect the differences in the nature of entrepreneurial undertakings and forms across different contexts. It is therefore needed to advance entrepreneurship theory by investigating the nature of EO-firm relationship in these youngest areas of entrepreneurship research.

Another way of widening the spectrum of EO-firm performance research would be the investigation of EO failure and lack of its positive effects on performance. EO literature tends to be drawn towards the spectacular, the successful, the highly visible. This bias towards high-profile achievement sways the choice of empirical research. Reflecting this, it seems worthwhile to pay attention to versatile manifestations of entrepreneurship, like performance errors or fallbacks. Similarly little attention has been given to the performance effects of excessive entrepreneurship (i.e. too much risk-taking propensity, too much innovation or too much pro-activity). Assuming such cases do not exist is very risky and misleading. Moreover, as often noted before, learning from failure or mistakes proves to be very valuable, as gaps between expectations and actual performance serve as major triggers for re-evaluation of previously held assumptions (Gatewood et al., 2002). Since EO is an area of management that involves novelty and risk-taking, it is more likely to encounter mismatches between expectations and actual performance. These mismatches are likely to expand our understanding of EO and firm performance relationship.

And last, the development of EO-firm performance research might benefit greatly by coupling with stakeholder theory. In its normative aspect, stakeholder theory is used to "interpret the function of the corporation, including the identification of moral and philosophical guidelines for the operation and management of corporations" (Donaldson & Preston, 1995, p. 71). The normative implication of stakeholder theory is that people engaged in value creation and trade are responsible to those who are affected by their actions (Freeman et al., 2010, p. 9). Hence, businesses are not only responsible to their shareholders and their value maximization, but also to their customers, employees, suppliers and communities. Stakeholder theory is not one strict view of the firm and its objectives, but rather an invitation to a conversation to examine two simple questions: "what is the purpose of the corporation?" and "to whom are managers responsible?" (Freeman et al., 2010, p. 206). These questions stand at the crossroads of EO theory and performance measures applied. They provoque a discussion around the problem of EO-firm performance relationship. Naturally, stakeholder theorists note that stakeholder theory is often considered competing against Milton Friedman's stockholder theory, which addresses the moral responsibilities of for-profit businesses (Freeman et al., 2010, p. 10). Yet, the range of application of stakeholder theory is not limited to a specific type of organizations and is applicable in other contexts as well (Hasnas, 2013).

Stakeholder theory presents a new lens to view the EO-firm performance relationship. EO being a value-creating process yielding various potential gains to the firm, affects numerous groups and individuals within and outside the organization. Therefore, the effects of EO on firm performance can be perceived by these groups differently. Stakeholder theory offers the incorporation of these various viewpoints and perceptions into the discussion about the influence EO bears on performance. This incorporation of groups and/or individuals is especially significant when testing EO-firm performance relationship in other contexts than for-profits. The non-profit or institutional sectors, by definition, seem to hold strong relationships with various stakeholders, whose perception of performance is especially important for future value creation and development.

Stakeholder theory models are consistent with value maximalization, including maximizing shareholder value (Hasnas, 2013). Yet it recognizes the interests and performance outcomes as perceived by other major stakeholders. Hence, in terms of practical implications, along with the existing and applied measures of financial performance, new and different measures of performance can be added to complete the testing and theory building of EO-firm relationship phenomena.

Moderators

Up-to-date research has established that the strength of EO-firm performance relationship is moderated by numerous factors. Looking at the existing body of research firm environment is the moderator identified and strongly supported by empirical findings (Rauch et al., 2009). Authors have most often operationalized moderators referring to environment as industry type (high-tech vs. low-tech), dynamism and/or hostility.

Yet this stream of research remains fragmented and considerable variance across studies do not clarify the nature of this relationship. Furthermore, researching far-fetched moderators risks driving attention away from the core problem. Much effort and attention needs to be given to testing moderating effects of both internal and external factors to deliver valid results that will help to explain the variance in the correlation level between EO and firm performance.

Replicate Studies

One of the conclusions of this review is that EO-firm performance relationship research remains fragmented. Authors apply different measures of performance, test different moderating factors, as well as different measures of EO coexist in the research. A suggested way of advancement for EO-firm performance relationship research would be replication studies. Borrowing hypothesis, measurement instrument and evaluation method from previous studies would bear results that concur or conflict prior results. It is important at every stage of theory development to establish reliability and validity of empirical findings. Moreover replication studies can provide generalizability (Frank et al., 2010), which is the aim of every science. Using the same conceptual and operational relations and scales in different geographical or industrial settings would make a substantial contribution. It has been suggested by Miller (2011) that the tendency of ignoring context makes it difficult to derive cumulative results, which might be the case of this stream of research. As noted before (Rauch et al., 2009), the existing research does not provide enough inputs into developing a common global understanding of EO outcomes.

Enhance Methodology

The study revealed predominance of survey data with a minor amount of qualitative methods employed and only one case study that illustrates how performance has been upgraded through entrepreneurial strategy making (Kuratko et al., 2001). So the existing articles constitute a long what-to-do list, testing what aspects of EO influence the performance or what factors moderate this relationship, without giving much insight into how it is done. There appears to be a need for more in-depth analysis. Qualitative research is much needed to explore different contexts, environmental and organizational and to focus on the 'how' providing deeper understanding of the EO-firm performance relationship. Qualitative research has the tendency to capture hidden aspects of phenomena and enable advancement of a discipline. This suggestion is an echo of the call made recently by Miller (2011, p. 878):

> "The collectivity of research shows that entrepreneurship and EO differ in nature greatly and according to context, that their sources are varied and multifaceted, and that their performance implications also alter from context to context. […] The challenge to derive fin-grained contextualized findings that are relevant to specific, richly described contexts exists across the management discipline […]. There is a growing need to fragment complexity."

This call echoes the some prior voices Like Vozikis et al. (1999, p. 41), who developed additional values creation perspective, suggesting that: "future investigations of EO should further explore and validate the use of this measure by empirical examination of specific examples of entrepreneurial activity in specific industries." These calls to a large extent remain unanswered.

Another observation emerging form the study is the modest amount of longitudinal analysis of the EO-firm performance relationship. This is surprising, taking that past research has indicated repeatedly that that the pay-off of certain EO variables is long term in nature (Zahra & Covin, 1995). Secondly, as Miles and Snow (1978) explained, the nature of Prospectors' growth is that they break the obvious growth pattern of steady increments and grow in spurts. Both conclusions are important for contemporary EO research, and suggest the need to adapt a dynamic approach to research. It is important to determine whether EO-firm performance relationship is sustainable, since many authors note that it is a resource consuming strategic orientation (Wiklund, 1999). Research should provide guidance about the time horizon for pay-back when investing in EO. Some authors note that research focusing on short term outcomes may be misleading presenting a false promise (Madsen, 2007).

Concluding, the use of multiple methods of different types of data collection (quantitative and qualitative) would surely enrich the research. In particular these improvements would allow researchers to capture more aspects of firm performance and further validate the findings of research in this field.

CONCLUSIONS

This article is being offered to serve two major purposes. First, the study has assessed the up-to date research regarding EO and firm performance relationship. It was designed to supply a clear statement about the direction in which academia is taking EO-firm performance relationship research.

Second and most important, the study makes a suggestion about the direction that this relationship should go. This paper made four major suggestions for a more inclusive, broader stream of research. First, it has been suggested to take inspiration from stakeholder theory, by perceiving the organization as a multi-stakeholder entity and embracing all of its stakeholders interests and numerous aspects of performance when exploring EO phenomena. While much work has been done in the area of financial performance outcomes, non-financial performance outcomes have not been addressed enough. Second, this paper suggests spreading the research of EO-firm performance relationship across different entrepreneurship contexts, such as social, non-profit and institutional, adjusting scales and measures. Third, a call has been made for a more dynamic approach to EO-firm performance relationship, and for the application of diversified research methods.

Both variables: the multidimensional nature of EO and firm performance pose serious challenges for researchers. This study revealed that some of these challenges are being met, while others remain neglected. By confronting and rethinking the up-to-date assumptions of the nature of EO-firm performance relationship, we can identify and pursue research questions that more effectively address contemporary challenges. As entrepreneurship is a wondrous human activity that benefits individuals, groups and societies as a whole, it is our duty to direct the research conducted in all directions of potential value creation. It is very much up to scholars to determine whether EO will be perceived strictly in financial pay-off terms or as a way of introducing multi faceted deep organizational change and renewal, beneficial to all stakeholders, affecting numerous aspects of firm performance.

Hopefully this study has highlighted research achievements, as well as some research gaps and all together new unexplored avenues of enquiry that might strengthen the theoretical base of EO research.

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