When does formalization contribute to entrepreneurial orientation? The moderating role of industry life cycle*

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The paper aims to analyse how formalisation, as a key component of organisational structure, influences entrepreneurial orientation and how this relationship is moderated by the industry life cycle. The hypothesised relationships are tested on a sample of 271 small and medium-sized enterprises (SMEs). The study uses regression models and controls for individual-level (i.e. respondent's status within the company), firm-level (i.e. firm age, firm size) and environment-level variables (i.e. origin of key competitors, industry type). The paper suggests that formalising a company's decision-making positively contributes to the level of entrepreneurial orientation (EO). Moreover, the positive effect of formalisation on EO is likely to be moderated by the industry life cycle such that it is stronger in young and fast-growing industries and weaker in mature industries.

Keywords: entrepreneurial orientation, formalisation, industry life cycle

Introduction

Entrepreneurial orientation (EO), a key concept in the entrepreneurship and strategic management literature, has proven to be useful in understanding why and how some firms can regularly renew themselves via entrepreneurship actions (Covin/Lumpkin 2011). Existing studies of the antecedents of EO yield a number of findings. First, they point at the role of the decision-maker's demographic characteristics (Altinay/Wang 2011) and personality (Simsek/Heavey/Veiga 2010), as well as his or her status in the organisation (e.g. Meynhardt/Diefenbach 2012). Second, they indicate organisational-specific antecedents related to the firm's resources and capabilities (e.g. Cruz/Nordqvist 2012) and strategies (e.g. Entrialgo/Fernandez/Vazquez 2001). Moreover, they find that the characteristics of the environment (e.g. environmental dynamism, industry growth) (Cruz/Nordqvist 2012) contribute to the formation of EO. Although significant contributions to the literature on the antecedents of EO have been made, important knowledge gaps still exist. Miller (2011) identifies one of them as a core area of interest for future research. Specifically, he argues that scholars have neglected the role of routines and procedures in promoting innovation and that we must understand 'when and how do structural routines and standard procedures actually foster EO?' (Miller 2011: 884). He also suggests that neo-bureaucratic and

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contingency theories offer a promising perspective to study the formation of this phenomenon.

De Clercq, Dimov and Thongpapani (2013), contrary to their expectations, report a positive role of formalisation in the formation of EO. This finding is counterintuitive and the authors of the study call for its further explanation, testing and validation in different settings (De Clercq et al. 2013). In this paper, we respond to this call by studying and explaining a rationale for why a higher level of formalisation in small and medium-sized enterprises (SMEs) can foster EO. In doing so, we build on neo-bureaucratic and contingency theories, as Miller (2011) suggests. Our results show that the relationship between formalisation and EO is strong in young and fast-growing industries and becomes weaker in mature industries. Since our research question concerns the structural antecedents of EO, we conceptualise EO as a set of firm behaviours (Miller 1983; Miller 2011) that may respond to stimuli such as an increase or decrease in the level of formalisation. In doing so, we follow the notion that 'behaviour is the central and essential element of the entrepreneurial process' (Covin/Slevin 1991: 8).

Our focus on SMEs is for two reasons. First, SMEs constitute the backbone of the European economy, representing 99% of businesses in the European Union (European Commission 2016). Second, although EO may contribute to SME growth and performance (Wiklund/Shepherd 2005), this strategic orientation is resource consuming (Covin/Slevin 1991). Therefore, its adoption by SMEs, which typically face severe resource constraints (Ebben/Johnson 2005), is particularly challenging. Thus, it is important to understand which factors are conducive to firm-level entrepreneurship in SMEs. In this study, we investigate the effect of formalisation because previous studies have recognised it as a factor promoting 'long-range thinking, reducing the focus on operational details, and providing a structured means for identifying and evaluating strategic alternatives' (Schwenk/Shrader 1993: 60), thus contributing to SMEs' better performance. The paper is structured as follows. We first outline the theoretical foundations of our study and develop the hypotheses. Next, we discuss the data collection procedure, sample and operationalisation of variables. Then, we provide the results of the regression analysis. Finally, we discuss both the theoretical and practical implications of our findings and the limitations of our study.

Theoretical background

Conceptualisation of EO

In an extensive review of the literature on firm-level entrepreneurship, Zahra, Jennings and Kuratko (1999) find a number of labels that have been used to describe this phenomenon, including 'corporate entrepreneurship', 'intrapreneurship', 'entrepreneurial posture' and 'entrepreneurial orientation'. Antoncic and

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Hisrich (2003), clarifying the terminology related to firm-level entrepreneurship, observe two dominant approaches used in this area: the corporate entrepreneurship approach (Guth/Ginsberg 1990; Zahra 1991) and the entrepreneurial orientation approach (Miller 1983; Covin/Slevin 1991; Lumpkin/Dess 1996).

Corporate entrepreneurship has been defined as 'formal and informal activities aimed at creating new business in established firms through product and process innovations and market developments. (…) Corporate entrepreneurship also entails the strategic renewal of an existing business' (Zahra 1991: 262). It encompasses two phenomena: 'the birth of new businesses within existing organisations' and 'the transformation of organisations through renewal of the key ideas on which they are built' (Guth/Ginsberg 1990: 6). Intrapreneurship has been defined as 'entrepreneurship within an existing organisation, referring to emergent behavioural intentions and behaviours of an organisation that are related to departures from the customary' (Antoncic/Hisrich 2003: 9). Intrapreneurial processes take place inside an existing organisation, regardless of its size. The concepts of both 'corporate entrepreneurship' and 'intrapreneurship' relate to entrepreneurial activity within existing organisations. However, while the former is more suitable for studying large corporations, the latter can be used to describe all types of organisations (small, medium-sized and large) (Antoncic/Hisrich 2003).

The EO approach started with Miller (1983), who posited that 'an entrepreneurial firm is the one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with "proactive" innovations, beating competitors to the punch' (1983: 771). While Miller (1983) was arguably the first to conceptualise EO (although he never used this term in his early work) as innovative, risk-taking and proactive firm-level behaviour, the construct's acceptance in management research was advanced when Covin and Slevin (1989) developed its operationalisation. Initially, they called EO 'entrepreneurial strategic posture' (Covin/Slevin 1989) or 'entrepreneurial posture' (Covin/Slevin 1991). Miller's definition together with Covin and Slevin's (1989) measurement scale represent the instrument of choice to study firm-level entrepreneurship (Zahra/Jennings/Kuratko 1999). It has been used in numerous studies representing a variety of fields, including management, marketing and healthcare (Monsen/Boss 2009; George/Marino 2011). This approach crisply defines EO as innovative, risk-taking and proactive organisational behaviour. Innovativeness is related to the introduction of new products and/or services and investment in the attainment of technological leadership (Rauch et al. 2009). Risk taking involves the firm's tolerance for high-risk projects and its inclination to experiment with methods and procedures (Baird/Thomas 1985). Proactiveness captures the firm's willingness to think and act big, face challenges and adopt a forward-looking perspective (Obloj/Obloj/Pratt 2010).

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Most researchers have generally followed the original EO concept, sometimes with slight modifications (Merz/Sauber 1995). Lumpkin and Dess define EO as 'the processes, practices, and decision-making activities that lead to new entry' (1996: 136) and extend the construct of EO with two additional dimensions, namely, autonomy (the ability and will to pursue opportunities) and competitive aggressiveness. Other approaches also exist (see Miller [2011] for an exhaustive review), but the original conceptualisation of EO remains valid despite three important challenges. The first relates to the issue of a common understanding of what EO really is. The scholarly community largely accepts that EO is a firm-level phenomenon and, more precisely, that it relates to a strategic business unit, where a 'unit' may range from a single business unit of a diversified corporation to a non-diversified SME (Covin/Lumpkin 2011). The second challenge relates to the issue of whether EO is a dispositional phenomenon, that is, 'an attitude held by principals or executives', a behavioural phenomenon, that is, 'a set of firm behaviours' or a combination of the two (Miller 2011: 878). Finally, some authors have conceptualised EO as multidimensional and argued that EO's dimensions of proactiveness, risk-taking and innovativeness operate relatively independently depending on the environmental and organisational context (Lumpkin/Dess 1996: 137). Others, meanwhile, follow Covin and Slevin's (1989) argument that the dimensions of EO covary and therefore suggest a unidimensional view of EO.

The chosen conceptualisation of EO has strong measurement-related implications. Covin and Wales (2012) argue that researchers can choose any measurement approach that best serves their research purposes. They warn, however, that EO according to Lumpkin and Dess (1996) is not exactly the same latent construct as EO according to Miller (1983) and that different conceptualisations require different measures. In this paper, we follow the dominant view of EO in the literature because its parsimonious theoretical approach and robust operationalisation allow us to compare our research results with the existing body of knowledge. Therefore, we treat EO as a firm-level phenomenon (Covin/Slevin 1991; Lumpkin/Dess 1996) that should be studied at the level of an undiversified SME or a strategic business unit of a large corporation (Covin/Lumpkin 2011). We adopt the former approach and examine the entrepreneurial orientation of SMEs.

Antecedents of EO

In their early conceptual model of entrepreneurship as firm behaviour, Covin and Slevin (1991) propose that EO (at that time referred to as 'entrepreneurial posture') is driven by three groups of factors: environmental-level variables, i.e. technological sophistication, dynamism, hostility and industry life cycle; strategic variables, i.e. mission, strategy, business practices and competitive tactics;

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and internal variables, i.e. top management values and philosophies, organisational resources and competencies, organisational culture and organisational structure. Moreover, they expect EO to be positively related to firm performance. The latter relationship has received substantial scholarly attention and the general conclusion of this stream of research is that EO contributes to firm performance (Rauch et al. 2009; Saeed et al. 2014).

A number of studies has investigated the direct effects of individual-specific, firm-specific and environment-specific variables on the formation of a firm's EO. The individual-level variables point at the role of educational background and previous business experience of entrepreneurs (Alitnay/Wang 2011), manager's tenure in current position (Meynhardt/Diefenbach 2012), chief executive officer (CEO) ownership (Li et al. 2008), owner-manager's work values and attitudes (Soininen et al. 2013) and core self-evaluations of CEOs (Simsek/Heavey/Veiga 2010). Among the organisational-level variables, the following prove to be significant in forming EO: availability of financial resources (Entrialgo et al. 2001; Eggers et al. 2013; Filser et al. 2014), technological and marketing capabilities (Ruiz-Ortega et al. 2013), availability of human capital (Entrialgo et al. 2001), presence of non-family managers (Cruz/Nordqvist 2012), differentiation strategy (as opposed to cost leadership strategy) (Entrialgo et al. 2001) and internal knowledge sharing and formalisation (De Clercq et al. 2013). Environmental-level antecedents of EO include environmental dynamism (Ruiz-Ortega et al. 2013; Cruz/Nordqvist 2012), technological opportunity and industry growth Cruz/Nordqvist 2012), environmental munificence, perception of the general risk and uncertainty in the firm's environment, as well as the characteristics of the institutional environment (Dickson/Weaver 2008).

Studies have also examined the antecedents of other constructs describing firm-level entrepreneurship (i.e. corporate entrepreneurship, intrapreneurship) and individual dimensions within EO and/or related constructs. For example, in their conceptual paper, Yang and Dess (2007) develop a series of propositions regarding the relationship between a firm's positional, structural and relational network embeddedness and individual EO dimensions (i.e. risk-taking, proactiveness, innovativeness). Doblinger, Dowling and Helm (2016) investigate the impact of public policies, regulatory uncertainty and industry network ties on firm innovativeness and risk taking. Smith (2007) examines the relationship between gender composition of boards and overall firm-level entrepreneurship and its individual dimensions, i.e. strategic opportunism and risk taking. Zur and Walega (2015) investigate the relationship between routine communication practices and corporate entrepreneurship, indicating the role of routines in research on firm-level entrepreneurship.

To enhance the development of cumulative knowledge, we study the antecedents of EO, taking the findings of reviewed studies on the antecedents of EO into ac-

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count and building on neo-bureaucratic and contingency theories, as Miller (2011) suggests. First, we focus on the link between key structural features in neo-bureaucratic theories: the formalisation of procedures and rules of organisational action and EO. Until recently, this antecedent of EO has rarely been analysed, and a study by De Clercq et al. (2013) examining the impact of organisational social capital, internal knowledge sharing and formalisation on EO provides the theoretically unexpected result of a positive link between formalisation and EO that demands further testing.

Second, since the pioneering studies of Burns and Stalker (1961), Lawrance and Lorsch (1967) and Thompson (1967), contingency theories have stressed that the environment can affect many organisational choices (and organisations can also affect the environment in which they operate). Following Verreynne and Meyer (2010), we argue that industry life cycle is an important contingency affecting the strategic orientations and modes of an organisation. Because it is central to the contingency theory proposition (Pugh 1984) that the structure and decision-making processes of an organisation must fit its environmental context, we combine theoretical perspectives by linking the effects of formalisation, industry life cycle and EO.

Formalisation and EO

In essence, formalisation represents the use of codified, explicit rules (Weber 1924) that guide and regulate many aspects of organisational operations: from the behaviour of job occupants via job codification to the allocation of resources, performance targets, evaluation systems and processes such as the formulation and implementation of business strategy. Formalisation can be defined as a key characteristic of an organisational structure (Hall 1974) which describes 'the extent to which the firm's decision making is based on formally explicated and documented procedures, plans, and policies, rather than on informal process' (De Clercq et al. 2013: 509). In highly formalised organisational structures, organisation charts, job descriptions, strategic and operational plans, firm policies and objective-setting systems are clearly articulated and formally explicated and documented and little flexibility exists as to 'who may decide or act or even how to decide or act' (Baum/Wally 2003: 1112). This, in turn, makes behaviours and actions in an organisation predictable under specified conditions.

Covin and Slevin (1991) propose that EO is negatively related to a firm's level of structural formalisation. In a similar vein, De Clercq et al. (2013) hypothesise that formalisation negatively influences EO. However, contrary to their expectations, they find a positive relationship between formalisation and EO.

As Miller (2011) suggests, neo-bureaucratic and contingency theories may shed light on the unclear relationship between formalisation and EO. On the one hand, some researchers have suggested that formalisation inhibits adaptability,

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rapid competitive response, open communication (Khandwalla 1977) and creativity (Hirst et al. 2011). Moreover, the excessive codification of routines may inhibit exploration and experimentation, making companies shorten their time horizon and ignore the larger picture of their environment (Levinthal/March 1993; Obloj et al. 2010).

On the other hand, formalisation may sometimes increase the efficiency of the decision-making process because it helps to manage uncertainty in the decision-making process. In his classical study of bureaucratic organisation, Crozier (1964) shows that extreme formalisation leads to vicious cycles of following rules for their own sake and triggers unexpected and creative behaviours. Blau (1970) reports that highly formalised organisations are usually decentralised and that formalisation can therefore be associated with flexibility and autonomy of actions. Nelson and Winter (1982) argue that organisational routines play an important role in promoting innovation by assembling the resources required for proactive pioneering.

More recent studies of the impact of formalisation indicate that it provides clarity about roles and responsibilities within an organisation, thus decreasing managers' role ambiguity (Michaels et al. 1988) and helping managers focus their attention on the implementation of novel ideas (Adler/Borys 1996), thereby increasing commitment and job satisfaction (Snizek/Bullard 1983) and enhancing internal coordination (Kang/Snell 2009). Baum and Wally (2003) find that firms that formalise routines but leave non-routine processes informalised and unstructured achieve the best results in terms of profit and growth. In a meta-analysis of studies of small firms, Schwenk and Shrader (1993) find that formalisation generally enhances performance. Recently, in a study of effects of vertical, cross-hierarchical and within-team communication, Zur and Walega (2015) show that routine practices enhance corporate entrepreneurship.

The attention-based view (ABV) of the firm (Ocasio 1997) provides another theoretical argument supporting the notion that formalisation can enhance entrepreneurial behaviours (Anderson et al. 2015). ABV seeks to explain a firm's behaviour by analysing how organisations 'channel and distribute the attention of their decision-makers' (Ocasio 1997: 187). By focusing on organisational attention, i.e. 'the socially structured patterns of attention by decision-makers within an organisation' (Ocasio 1997: 188), ABV directly links organisational structures (which channel the attention of managers) to the firm's behaviour. Given the limited attention capacity of humans (Simon 1947), formalisation may stimulate entrepreneurial behaviours by shifting the managers' attention from operational details (Schwenk/Shrader 1993) towards 'higher-value opportunities' (Anderson et al. 2015: 1592). By providing a set of procedures, plans and policies, formalisation releases managers from operational administrative work and allows them to focus on entrepreneurial behaviours.

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Thus, taken together, we argue that despite the possible negative effects indicated by some theorists (Hall 1974; Hirst et al. 2011), formal procedures may contribute to the formation of EO in a number of ways. First, they enable crucial actors in small and medium-sized firms to focus on the development and capture of fleeting opportunities by releasing them from time-consuming coordination and control duties (Schwenk/Shrader 1993). Second, paradoxically, formalisation may promote faster reactions to external contingencies and opportunities by fostering the collection and processing of information and enabling decision-makers to speed decision-making (Baum/Wally 2003). Organisations are information-processing systems, and rules for collecting, storing and using information are essential elements of organisational formalisation. Formalisation allows organisations to build redundant sets of information and convert them into explicit knowledge that can sometimes, if not always, be used for the efficient generation of legitimate, innovative action options, as well as the evaluation of their level of risk. Hence, the formalisation of information-processing and decision rules can support specific behaviours and actions fostering EO in SMEs (Zur/Walega 2015).

Third, formalisation may increase EO because it helps to store the data of organisations' path-dependent experiences for future extraction operations. By matching environmental contingencies with the existing stock of knowledge and formal rules, firms can become both more legitimate and more selective about which opportunities they can leverage by entrepreneurial behaviour and which they can afford to ignore.

Fourth, employees with well-defined duties and responsibilities may work more efficiently and focus on proactive and even innovative actions, rather than on negotiating power relationships, work practices and resource allocation. Thus, smart formalisation may actually promote the implementation of entrepreneurial actions.

Therefore, we formulate the following hypothesis:

Hypothesis 1: Higher levels of formalisation will lead to the enhancement of EO.

Environmental contingencies

As noted above, De Clercq et al. (2013) report a positive relationship between formalisation and EO while hypothesising a negative relationship. When explaining this apparent 'paradox', they argue that formalisation itself may promote EO directly, perhaps because formalised systems can provide "protection" against the uncertainty of entrepreneurial activities' (De Clercq et.al. 2013: 528). We add to this explanation by proposing that the role of formalisation in the formation of EO may also be contingent on environmental conditions.

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The environment is one of the key contingencies in strategic management and organisation theory (Child 1972; Hall 1974; Thompson 1967). Contingency theory proposes that, on the one hand, companies try to adapt their strategy to environmental conditions and, on the other, they influence the environment by means of their strategic actions (Nelson/Winter 1982).

Previous studies on the antecedents of EO support the notion that environmental conditions directly affect the formation of EO. In their early research, Covin and Slevin (1990) find that entrepreneurial strategic posture (EO) varies among new ventures (i.e. firms not older than 10 years) depending on the industry life cycle. They observe that young firms in emerging (mature) industries have the highest (lowest) EO score. Cruz and Nordqvist (2012) report that environmental dynamism, technological opportunity and industry growth are positively related to EO. Ruiz-Ortega et al. (2013) observe a positive relationship between environmental dynamism and EO and reveal that this relationship is further moderated by firm-level factors, i.e. technological and marketing capabilities. In a similar vein, Fayolle, Basso and Bouchard (2010) argue that industry dynamism (measured by the pace of change at the technology, demand and competition level) 'puts pressure on firms, forcing them to innovate, to continuously adapt and thus to take risk' (2010: 719) and, therefore, increases the likelihood of developing EO. We propose to capture the systemic effect of the environment by studying the interactive effects of the level of formalisation, environmental life-cycles and EO.

We expect the role of formalisation in EO development to vary according to the level of environmental uncertainty. The initial stages of the industry life cycle (periods of industry development and growth) are often depicted as especially attractive. Industry barriers are low (Porter 1980), competition is still limited (Lumpkin/Dess 2001) and growth opportunities are abundant because markets grow rapidly. However, the lack of industry standards and frequent entries and exits (Peltoniemi 2011) increase the environmental uncertainty (Dowell/Swaminathan 2006). In such circumstances, formalisation can help to reduce goal ambiguity and ensure focused behaviours of individuals and teams, thus being especially instrumental for enhancing firms' EO.

We argue that a high-growth and high-velocity environment may moderate the relationship between formalisation and EO in its favour. Formalisation can help to foster innovative, proactive and risk-taking behaviour in the face of uncertainty, but in both large organisations and SMEs, decision-makers may be required to prove *ex post* that they make decisions in an intelligent and rational way (Feldman/March 1981). Hence, they have *ex ante* incentives to develop and use organisational systems to gather more information and evaluate innovative and risky options in some detail. Therefore, paradoxically, managers operating in high-velocity, high-growth, risky environments may have an incentive to for-

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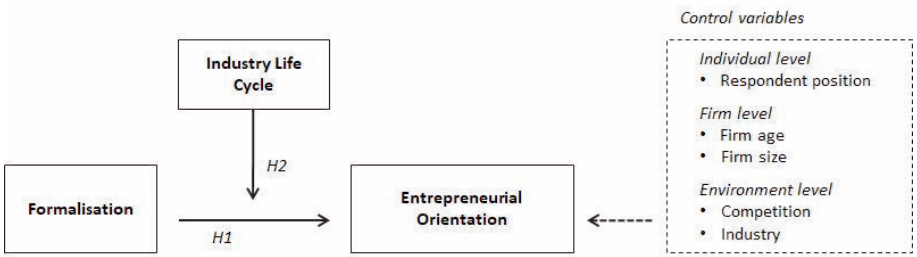
malise preparations to engage in entrepreneurial behaviour to show that they make decisions in a legitimate and well-structured way.

Therefore, we expect the following:

Hypothesis 2: *The positive relationship between formalisation and EO is moderated by the industry life cycle, such that the relationship is stronger in a fast-growing industry and weaker in a mature industry.*

The hypothesised relationships are presented in Figure 1.

Figure 1: Conceptual framework.



Data and method

Data collection and sample

The data for this study come from a 2013 survey of Polish firms sponsored by the Polish Agency for Enterprise Development (PAED). The study was conducted from October to November 2013. We contacted 2000 randomly selected SMEs (10-249 employees) drawing them from the total population of SMEs proportionally to their locations and industries. Because not all the companies contacted agreed to participate in our survey, the final usable sample comprised 271 small and medium-sized firms. Considering that 'in the former communist countries in particular, managers are suspicious and reluctant to complete surveys' (Manolova/Manev/Gyoshev 2014: 951), a response rate of 13.55% was satisfactory. On average, the firms included in the final sample were 18.57 years old (with a standard deviation of 10.61, range 2-75) and employed 61.7 employees (with a standard deviation of 59.61, range 10-245). More than one third of the sample (95 firms) operated in manufacturing industries, almost 20% (53 firms) – in trade and 10.7% (29 firms) in professional services; 22.1% (60 firms) operated in all other service industries, including transport, education and healthcare, information and communication, finance, insurance and real estate and other; 8.9% (24 firms) was in construction; 3.7% was (10 firms) in agriculture and mining. Considering the industry structure in our sample, one can see that the sample – although not ideal - is a quite relevant representation of the

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entire population of SMEs operating in Poland (Table 1), reflecting the structure of major sectors of SMEs' primary activity.

Table 1. Total number of SMEs (10-249 employees) by primary activity in 2012, in Poland, compared with the industry structure of the research sample

	Manufacturing	Construction	Trade and repair	Professional services	Other services	Other industry*	Total
Small (10-49)	14 804	7 853	16 731	4 588	11 758	1 337	57 071
Medium (50-249)	6 108	1 498	3 115	1 267	2 654	842	15 484
SME (Small & Medium)	20 912	9 351	19 846	5 855	14 412	2 179	72 555
As % of total	28,8%	12,9%	27,4%	8,1%	19,9%	3,0%	100,0%
Research sample	35,1%	8,9%	19,5%	10,7%	22,1%	3,7%	100,0%

Note: * excluding "Manufacturing".
Source: Own calculations based on Central Statistical Office (2014).

In case of a low response rate, non-response bias may be a concern. Therefore, to estimate the existence of non-response bias, we followed a standard approach based on comparison of early and late respondents (Armstrong/Overton 1977). According to Armstrong and Overton (1977), one basis for the extrapolation procedure is time trends, where late respondents are assumed to be similar to non-respondents. Weiss and Heide (1993) defined early (late) responses as the first 75% (last 25%) of returned surveys, and such classification has also been adopted in other studies (Sousa/Bradley 2005; Azar/Drogendijk 2014). In this study, we compared early and late respondents on several firm-level characteristics (number of employees, localisation, industry), respondent-level characteristics (gender, age) and key constructs (EO, formalisation and industry life cycle). Comparison of means using a t-test revealed no statistically significant differences, thereby suggesting that nonresponse did not pose a problem in this study.

The main research instrument was a survey, and the method for data collection was the computer-assisted web interview (CAWI). Participants were invited to take part in the project via e-mail. The survey was completed by CEOs or board members, which is in line with the dominant approach in scholarly literature, where 'the EO of a business is typically investigated through top management' (Rauch et al. 2009: 776).

The survey was conducted with a single informant; therefore, predictor and criterion measures were obtained from the same source. In such a situation, common method variance (CMV) may be a concern (Podsakoff et al. 2003; Chang et al. 2010). To ensure study reliability and to minimise the risk of CMV, several *ex ante* procedural remedies were employed. First, respondents were informed that

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response anonymity and confidentiality were guaranteed and that respondents' personal data were not traceable to the company. Second, the operationalisation of the predictor and criterion measures employed different scales and formats, and the order of the questions was mixed. Third, since the study is a part of a larger research project, the questionnaire included a number of questions relating to a variety of issues. Therefore, it is unlikely that respondents were guided by our theoretical expectations and hypothesised relationships (Chang et al. 2010). Fourth, to eliminate ambiguity, vagueness or unfamiliarity, the questionnaire was pretested. Additionally, we employed an *ex post* approach (the single-common-method-factor approach) to detect CMV. A *post hoc* Harman's single-factor test revealed that the first factor accounted for 15.6% of the variance, which indicates that CMV should not be a problem in the present study (Podsakoff et al. 2003).

Measures

Entrepreneurial orientation. Most EO studies examine three dimensions instead of two or five and the Covin and Slevin (1989) scale is the most often used (Rauch et al. 2009). Following Covin and Lumpkin (2011), we conceptualise EO as a firm-level distinguishing characteristic of entrepreneurial behavioural patterns, and in line with the recommendation of Covin and Wales (2012), we use Covin and Slevin's (1989) scale.

Thus, in our study, the dependent variable, *entrepreneurial orientation*, captures three dimensions[1]: innovativeness, proactiveness and risk taking. It is operationalised by nine items on a 5-point scale (1 = strongly disagree, 5 = strongly agree), adapted from the Covin and Slevin (1989) scale: (1) instead of focusing solely on the marketing and sales of products/services that we already have, research and development of new products/services is the main direction of activities of our company; (2) our company regularly launches new or upgraded products/services; (3) employees in our company are constantly experimenting to find new, innovative modes of action; (4) our company is the first to implement changes to which the market and competitors must adapt; (5) our company is the first on the market to take novel actions and projects; (6) the situation in the market and the industry has always been an important source of new ideas and opportunities to develop our business; (7) in general, the top managers of my firm have a strong proclivity for high-risk projects (with chances of very high return); (8) in general, the top managers of my firm believe that due to the nature

1 The factor analysis of the nine items of the EO construct revealed the existence of three components with eigenvalues greater than 1, although one dominant component emerged (with loadings for all items above 0.4). However, any further analyses, in which we would separately examine three specific dimensions of EO (created in line with the results of factorial analysis) would not be possible, as in the case of two constructs, Cronbach's alpha would be lower than 0.5 and 0.6.

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of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives; (9) in a situation of uncertainty, our company acts quickly and decisively to take advantage of opportunities while accepting the potential risks. As in other studies, the original scale was slightly modified to reflect local conditions. For instance, Kowalik, Danik and Sikora (2017: 209) suggest that the level of EO among Polish SMEs tends to be low and argue that 'the development of an EO scale which would fit the characteristics of SMEs from emerging markets is needed'. In another study, examining firm-level entrepreneurship of Polish firms, Zur and Walega (2015) argue that original scales need to be made context sensitive, and building on Antoncic and Hisrich (2001), they observe that the 'overall level of (corporate entrepreneurship) activities among Polish companies might present lower intensity and lower risk levels' (2015: 126), which explains the rationale for the scale modification. Following the same logic, but in the context of entrepreneurial orientation of Polish firms, we alter the original EO scale by substituting two items ('changes in product or service lines have usually been quite dramatic' and 'our company typically adopts a very competitive, "undo-the-competitors" posture'), with two other items ('employees in our company are constantly experimenting to find new, innovative modes of action' and 'the situation in the market and the industry has always been an important source of new ideas and opportunities to develop our business'). The construct has a good Cronbach's alpha of 0.724, which suggests satisfactory internal reliability (Nunnally/Berstein 1994).

Formalisation. The measure of formalisation combines items adapted from prior research (Obloj et al. 2010): (1) our company operates according to formal procedures with which everyone in the company must comply and (2) modes of operation in our company are clearly defined so that everyone knows what his/her specific and detailed duties and responsibilities are. The items are measured on a 5-point scale (1 = strongly disagree, 5 = strongly agree). The construct has a Cronbach's alpha of 0.600, which is relatively low. However, very short scales tend to yield low levels of Cronbach's alpha (Sijtsma 2009).

Industry life cycle (ILC). Typically, four stages of the industry life cycle are identified: introduction, growth, maturity and decline (Lumpkin/Dess 2001). In this study, we use a subjective measure of industry life cycle. Subjective measures of ILC have also been adapted in other studies 'due to the absence of objective data' (Covin/Slevin 1990:132). As the 'subjective' measurement has its limitations, we verify whether the variance in the assessment of the industry life cycle is not attributable to differences between the coders in terms of age, gender, position within the organisation and education. We find no statistically significant relationships between the assessment of the industry life cycle and the coders' characteristics. We ask respondents to place their industry on this conventional continuum (i.e. respondents indicate whether the industry in which their firm operates is young, fast-growing, or mature). We then code industry life

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cycle as a dichotomous variable, differentiating young and fast-growing industries (takes value of 1) and mature industries (takes value of 0), following Verreynne and Meyer's (2010) recommendation. They examine the moderating effect of industry life cycle on the relationship between strategy-making processes and small firm performance. In their analysis, they divide the industry stages into two categories: growth (combining the introduction and growth stages) and maturity (covering the maturity and decline stages), arguing convincingly that the introductory and growth stages and the maturity and early decline phases share many common strategic characteristics.

Control variables. The study employs four control variables at the individual, firm and environment level. At the individual level, we control for the respondent's status within the organisation. This variable (respondent position) is binary, with 1 indicating owners who actively manage the business.

At the firm level, we control for firm size and age. Prior research has revealed mixed results concerning the relationship between firm size and EO. Studies have confirmed that firm size is positively associated with EO (Robinson et al. 1992), as well as the opposite/negative effect (Henderson/Clark 1990). *Firm size* is measured using the natural logarithm of the number of employees. *Firm age* is a control variable typically included in entrepreneurship studies (Ruiz-Ortega et al. 2013). Prior research offers different explanations of the relationship between age and EO. For example, Kyrgidou and Spyropoulou (2012) argue that with age, firms gain greater experience with entrepreneurial practices that enhance their EO. However, following prior research, Ruiz-Ortega et al. (2013: 483) suggest that firm age can also be considered 'a proxy for structural rigidity (Lee 2008), having a negative influence on EO'. Firm age is measured using the natural logarithm of the number of years the firm has been operating.

At the environment level, we control for certain institutional factors that are especially important in post-transformation economies. Based on institutional theory, we may expect that the normative, political and cognitive environment influences EO (Scott 2001; Miller 2011; Bruton/Lau/Obloj 2014). In particular, organisations may be motivated to pursue socially acceptable and desirable behaviours to obtain legitimisation from stakeholders. For example, they may follow prominent industry leaders who serve as role models for other companies. In line with Miller's argument that a firm's 'EO can sometimes be shaped by its efforts to imitate prominent competitors' (2011: 881), we take into consideration the influence of foreign competitors as a factor shaping the entrepreneurial behaviour of local firms. We therefore control for the origin of key competitors to which the company relates ('predominantly domestic' versus 'predominantly foreign'). To operationalise this variable (*competition*), we ask the respondents to indicate the origin of key competitors in their markets – domestic vs. foreign competitors, coded as 0 and 1, respectively. If respondents indicate that key

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competitors are simultaneously of domestic and foreign origin, the answer is coded as 1. Concerning the type of industry, we use binary variables for agriculture and mining (IND1), manufacturing (IND2), construction (IND3), trade (IND4), professional services (IND5) and all other services (IND 6). In the regression analysis, IND2 is not included in the models as it represents a reference level for interpretation of the results for other industry variables. Correlations and descriptive statistics for all variables are shown in Table 2.

Table 2. Correlations and descriptive statistics, n=271

	1	2	3	4	5	6	7	Mean	S.D.
1 EO	1							3.302	0.661
2 Formalisation	0.143*	1						4.059	0.861
3 ILC	0.114	-0.019	1					0.513	0.501
4 Firm age	-0.108	0.039	-0.092	1				2.783	0.541
5 Firm size	0.121*	0.150*	-0.076	0.148*	1			3.713	0.905
6 Competition	0.121*	0.050	0.115	0.046	0.127*	1		0.483	0.501
7 Respondent position	0.095	-0.021	0.046	-0.018	-0.043	0.073	1	0.177	0.382
IND1	0.026	-0.025	-0.044	0.020	0.111	-0.111	-0.091	0.037	0.189
IND2	0.143*	0.017	-0.058	0.073	0.299**	0.156*	0.105	0.351	0.478
IND3	-0.092	-0.074	0.122*	0.097	0.007	0.010	0.025	0.089	0.285
IND4	-0.100	-0.039	-0.041	-0.042	-0.242**	0.063	-0.009	0.196	0.397
IND5	0.017	0.073	0.027	-0.030	-0.085	-0.072	-0/004	0.107	0.310
IND6	-0.030	0.025	0.022	-0.097	-0.104	-0.142*	-0.084	0.221	0.416

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Analysis and results

A regression analysis is performed to test the conceptual model (Figure 1). To examine the relationship between EO and formalisation, and EO and the interaction term of EO and industry life cycle, we run three regression models: first, the baseline model (Model 0, Table 3), composed of control variables only (respondent position, firm age, size, competition and industry); second, the main effects model (Model 1, Table 3), comprising the independent variable (formalisation), moderator (industry life cycle) and control variables (as in Model 0); third, the full model (Model 2, Table 3) including the interaction effect (formalisation X industry life cycle). The moderation effect exists when the inclusion of the interaction term increases the explanatory power of the model captured by the change in R-squared (Cohen/Cohen 1983) in a statistically significant way. The interaction term (formalisation X industry life cycle) is calculated by multiplying the corresponding components that are previously centred (formalisation values are standardised, and the dichotomous variable of ILC is recoded as -1,

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1). To properly understand the nature of the interaction, we plot the effects of formalisation on EO for different stages in the industry life cycle (young and fast-growing vs. mature industry). We have also examined potential multi-collinearity problems by calculating the variance inflation factors (VIFs).

Table 3. Linear regression results (EO as a dependent variable), n=271

	Model 0 Baseline model		**Model 1** Main effects		**Model 2** Full model		
	B	Sig.	*B*	Sig.	*B*	Sig.	VIF
Formalisation			0.125* (2.081)	0.038	0.117† (1.935)	0.054	1.050
Industry Life Cycle (ILC)			0.110† (1.919)	0.070	0.108† (1.787)	0.075	1.056
Formalisation x ILC					0.099† (1.663)	0.098	1.033
Firm Size	0.091 (1.398)	0.163	0.079 (1.209)	0.228	0.086 (1.318)	0.189	1.229
Firm Age	-0.125* (-2.064)	0.040	-0.119† (-1.961)	0.051	-0.129* (-2.133)	0.034	1.061
Competition	0.109† (1.764)	0.079	0.089 (1.436)	0.152	0.094 (1.527)	0.128	1.097
Resp. Position	0.086 (1.427)	0.155	0.084 (1.408)	0.160	0.088 (1.467)	0.144	1.032
IND1	0.011 (0.181)	0.857	0.015 (0.243)	0.808	0.022 (0.349)	0.728	1.106
IND3	-0.115† (-1.788)	0.075	-0.123† (-1.916)	0.056	-0.115† (-1.793)	0.074	1.193
IND4	-0.126† (-1.774)	0.077	-0.125† (-1.782)	0.076	-0.123† (-1.764)	0.079	1.410
IND5	-0.016 (-0.243)	0.808	-0.034 (-0.509)	0.611	-0.029 (-0.438)	0.662	1.243
IND6	-0.064 (-0.903)	0.367	-0.077 (-1.100)	0.272	-0.072 (-1.037)	0.301	1.407
Model Summary							
R2	0.071		0.098		0.107		
Adjusted R2	0.039		0.059		0.066		
F	2.220		2.546		2.580		
Sig. of F	0.021		0.005		0.003		
Change in R2			0.026		0.010		
F-Change			3.798		2.765		
Sig. of F-Change			0.024		0.098		

Note: Cell entries are standardised regression coefficients. t-statistics shown in parentheses.
†p<0.10; *p<0.05; **p<0.01; ***p<0.001

The main effects model (Model 1, Table 3) is statistically significant (F=2.546, p<0.01) and explains 5.9% of the variance of entrepreneurial orientation. In comparison to the baseline model (Model 0), its explanatory power has increased. As evidenced by the results, formalisation has a positive and significant influence on EO and, therefore, H1 is supported. Industry life cycle also affects

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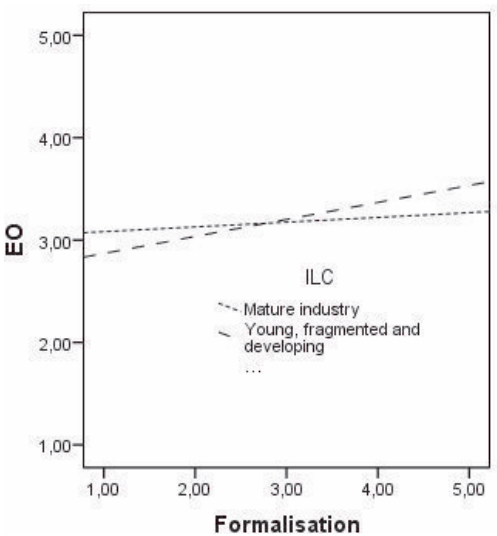
EO so that firms operating in fast-growing industries tend to have higher EO, whereas firms operating in mature industries are characterised by lower EO.

The full model (Model 2, Table 3), which includes the interaction effect (formalisation X industry life cycle), is statistically significant (F=2.580, p<0.01, *delta R-squared* = 0.01, *F-change* = 2.765, p<0.1). The full model supports H2 on the significance of the interaction effect of formalisation and industry life cycle for EO, although at a lower level of statistical significance (p<0.1). To better understand the interactive effect, we plot a graph (Figure 2) indicating that EO increases with the level of formalisation; this relationship is accentuated when a firm operates in a fast-growing industry[2].

Figure 2: Moderating effects of industry life cycle (ILC) on formalization-EO relationship.



Our full model explains 6.6% of the variance of the dependent variables. The low value of *adjusted R-squared* can be attributed to the fact that EO is driven by a number of individual-level, firm-level and organisational-level variables which we do not include in our model. We only control for the respondent's position, firm size and age, competition and industry. The decision to include these variables in our model is driven by theoretical considerations (e.g. Miller's [2011] argument that EO may be shaped by imitating prominent competitors), as

2 In line with Brambor et al.'s (2006) suggestion, we have also analysed the marginal effect of formalisation on EO (for different values of ILC). Therefore, for ILC=0, the marginal effect of formalisation on EO is 0.160 (standard error =0.061, 95% confidence interval between 0.040 and 0.279), and for ILC=1, the marginal effect of formalisation on EO is 0,290 (standard error = 0.080, 95% confidence interval between 0.131 and 0.447), which indicates the significance of marginal effects.

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well as results of some previous studies (e.g. Cruz/Nordkvist [2012] finding a positive relationship between firm and EO). Of these variables, only firm age and industry are significant in our model. Firm age is negatively related to EO, which contradicts the argument that experience fosters EO (Kyrgidou/Spyropoulou 2012) and supports the suggestion that firm age, as a proxy for structural rigidity, negatively influences EO (Ruiz-Ortega et al. 2013). The fact that firm size is insignificant, while contradictory to the results obtained by Cruz and Nordkvist (2012), is in line with other studies (e.g. Entrialgo et al. 2001). Mixed findings regarding the relationship between firm size and EO suggest that this relationship may be shaped by other contingencies, such as the capital structure. For example, while Cruz and Nordkvist (2012) study Spanish family firms, Entrialgo et al. (2001) study Spanish SMEs in general. This supports the argument that antecedents of EO are very complex and the econometric modelling of the phenomenon, aimed at explaining its variance (instead of testing a specific, focused hypothesis), should include a number of other variables not studied in this paper.

Discussion and conclusions

To broaden our understanding of internal and external factors that jointly influence EO, we examine the roles of formalisation and industry life cycle while controlling for individual-level (respondent's status within the company), firm-level (firm age, firm size) and environment-level variables (the origin of key competitors and industry type). We find indications that firms with higher levels of formalisation have higher levels of EO, which is consistent with the recent notion that formal structures and codification of organisational routines may enhance entrepreneurial behaviour (Miller 2011; De Clercq et al. 2013). Additionally, the industry life cycle is likely to moderate the influence of formalisation on EO.

We tend to search for simple relationships and casual links, but the world of organisations is complex. Our paper does not offer proof that formalisation drives EO. Rather, it illuminates one part of a larger explanatory puzzle. Formalisation may support EO, depending on other organisational characteristics and environmental contingencies. Therefore, we would like to frame our theoretical and managerial contributions in a form of discussion of conditions that might favour a relationship found in our results and propose a subsequent research agenda.

In their recent review of EO research, Wales, Gupta and Mousa (2013) stress that (a) with the exception of China, EO remains unexamined in emerging markets, (b) there is a limited amount of research into the relationship between internal organisational variables and EO and (c) sociocultural antecedents (macro-contexts) of EO remain under-explored. We suggest that the latter two observations, combined with preliminary results of our paper, can be used to generate

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broad research questions to frame a research agenda oriented towards the search for situation-specific patterns of EO – organisational and environmental dependencies. Formulation of such contingent, interactive patterns would have a real practical significance because it would better inform managers about factors that affect EO in particular situations.

In formulating our implications, we follow the assumption that EO, as a predominantly behavioural phenomenon, can be managed (Covin/Slevin 1991). In other words, innovative, risk-taking and proactive behaviours can be encouraged or discouraged by the organisational system (Covin/Slevin 1991), but the relationship between formalisation and EO might be complex and contingent on environmental conditions. We find that formalisation fosters EO. This is consistent with neo-bureaucratic theories, which argue that rule-favouring properties of actions and transactions include repetitiveness, complexity and time pressure (Heugens 2005). To encourage repetitive innovative, risk-taking and proactive behaviours, managers should actually codify organisational routines. However, the strength of this effect is contingent on environmental conditions. The influence of formalisation on EO is strongest in young and quickly growing industries, which seems sensible even if the results are counterintuitive. The distinguishing feature of such industries is high velocity and an abundance of growth opportunities, but also high uncertainty. Under such conditions, formalisation is likely to be particularly beneficial for fostering EO as it provides a shield against internal goal ambiguity and external uncertainty. These findings resonate well with the conclusions of Zur and Walega, who argue that firms need 'not less standard practices, but more standard practices and better standard practices (2015: 131)'. Formalisation helps to ensure that managers and teams communicate well, focus on a limited number of relevant opportunities and know what rules and behaviours they should follow to pursue their firm's goals. This is an important but not the only dimension of organisational structure. To obtain a more systemic view of structural and EO relationships, other dimensions of organisational structure should be taken into account, especially centralisation, which is the most often studied organisational characteristic in EO studies (Wales et al. 2013). A contingency perspective demands that we study relationships between organisational variables in the contexts of particular industry conditions, business life cycles or characteristics of a close business environment. In essence, from the contingency perspective, we distinguish high-velocity, turbulent environments characterised by uncertainty, dynamism and change and relatively stable, low-velocity environments (Emery/Trist 1965; Lawrance/Lorsch 1967). A combination of these variables seems like a fruitful way to unravel patterns of structure – EO relations in localised contexts. Analysis of relatively stable interactive effects would help to understand EO drivers and inform managers how to develop and manage them. This brings about the following question: *Is high formalisation of organisational structure associated with high EO of firms*

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operating in high-velocity environments? And, more generally: *What structural characteristics are associated with high EO of well-performing firms operating in high-velocity environments?*

The most obvious limitation of our argument that formalisation might foster EO in a turbulent environment associated with the early stages of industry life cycle is that our study is set in a single country (Poland), which limits the generalisability of our findings. As Saeed et al. (2014) indicate, the performance outcomes of EO may be context-specific and depend on both cultural and macroeconomic contingencies. This is likely also the case with EO antecedents. Thus, comparative studies of different macro-contexts might generally lead to a better and more practical understanding of EO in terms of both antecedents and outcomes. Future studies of EO phenomena in emerging economies should focus on three dimensions of macro-contexts that might be important in understanding contingencies: culture, institutions and imprints[3].

First, Poland has a national culture characterised by a high power distance and high declared, but low use of uncertainty avoidance[4] (House et al. 2004). High power distance indicates the need for hierarchy and the tendency for centralisation. A high level of uncertainty avoidance in Hofstede's framework suggests a declared emotional need for rules, but it is combined in practice with the lack of respect for imposed rules and regulations, inefficient bureaucracy (Boski 2009) and a low level of internal formalisation (House et al. 2004). It is possible that a declared need for hierarchy and rules enhances the use of formalisation, but the lack of respect for formal rules and regulations in practice, especially under the pressures of a high-velocity environment, fosters EO.

Second, Poland's institutional framework, developed under the communist regime, radically changed during the political and economic transformation in the 1990 s, but the new institutional environment is still unstable and deficient due to its regulatory, cognitive and normative components (Scott 2001) in which change is neither fast nor at a constant speed (Bruton et al. 2014). It is possible that the positive relationship between firms' formalisation and EO observed in our sample is the result of formalisation, compensating for the lack of efficient rules and regulations (institutions) in a volatile external environment. In the environment of well-developed and functioning institutions, the effects of a firm's formalisation on EO may be less significant or even negative. Hence, different institutional settings might lead to differences in the relative influence of struc-

3 We would like to thank the anonymous reviewer for this insight and suggestion to expand on it.

4 Poland scores exceptionally high on 'uncertainty avoidance' measured with Hofstede's (2001) indices and exceptionally low on 'uncertainty avoidance' measured by the GLOBE project (House et al. 2004). This inconsistency is due to the fact that these projects use different definitions and operationalisations of the construct (Boski 2009).

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tural factors on EO because, as Hall and Soskice (2001: 32) argue, 'the institutional structure of the political economy provides firms with advantages for engaging in specific kinds of activities'. Hence, the validation of our findings in another contextual setting, preferably a developed economy with a high level of 'uncertainty avoidance' (as measured by the GLOBE project) and efficient institutions, is needed and is a natural suggestion for future research.

Third, a relationship between formalisation and EO might be the paradoxical effect of strong imprinting (Shinkle/Kriauciunas 2012) of the planned economy, in which both general institutional conditions and the architecture of enterprises are very rigid, but managers learn how to bypass or bend the rules and behave entrepreneurially. Accordingly, initial choices (due to the decisions of founders or environmental pressures) can become very durable as they are reinforced over time by patching or thickening processes (Siggielkow 2002). Thickening relates to reinforcement of selected choices by new supporting choices and actions. Patching has the same effect, but through adoption of such choices that reinforce the former indirectly, through a dense set of interrelationships among organisational variables. Over time, imprinting leads to integration and complementarity of choices that make them difficult to change (Marquis/Tilcsik 2013) and becomes a constraint on organisational choices. Since the average age of firms in our sample is only 18 years, imprinting is probably not significant, but the question remains as to the impact of path-dependent and imprinted practices on EO and its contingencies. This suggests that comparative studies taking into account macro-contexts of a particular county or region in which culture, institutional developments and imprinting can be highly specific would improve our understanding of the interactive effects of internal factors and EO in particular settings. Such studies could address the following questions: *Is high formalisation of organisational structure associated with high EO of firms operating in post-communist economies?* And, more generally: *What structural characteristics are associated with high EO of well-performing firms operating in particular combinations of cultural and institutional macro-contexts?*

Our findings are tempered by several limitations. First, we clearly recognise that the explanatory power of the statistical model (as captured by *adjusted R-squared*) is low. Therefore, we have carefully interpreted the results, presenting them rather as indications of interesting phenomena worth academic attention than definite findings.

Second, as we use cross-sectional data, we are unable to test the causal effects of formalisation on EO. While there are conceptual arguments in favour of formalisation affecting EO, the opposite causal direction is possible. For example, because EO stimulates growth, it may also contribute to the professionalisation of management, thus leading to greater formalisation. Other contingencies can influence the direction of this relationship, as we discuss above. Third, we recog-

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nise the limitations of relying on a single respondent for each company. Using multiple respondents can increase the validity of the study. Fourth, despite our efforts, potential biases may still exist in the development of scales and validated measures. For example, in conceptualising EO in our study, we follow Miller (1983) and Covin and Slevin (1989), treating EO as a unidimensional construct and measuring it with the Covin and Slevin (1989) scale. An alternative conceptualisation and measurement based on Lumpkin and Dess (1996) may produce more nuanced results regarding the antecedents of different dimensions of EO (Rauch et al. 2009). A very promising reconceptualisation of EO has been offered by Anderson et al. (2015). These authors define EO as a second-order construct composed of entrepreneurial behaviours and managerial attitude towards risk. Following this definition, the antecedents of entrepreneurial (i.e. innovative and proactive) behaviours and managerial attitudes towards risk should be studied separately (Anderson et al. 2015).

Despite these limitations, we believe that our research sheds novel light on the structural antecedents of EO, thus contributing to understanding the antecedents of entrepreneurial behaviour. We hope that this paper can serve as a springboard to study the relationships between organisational design and EO in its full complexity. The natural avenue for future research is to focus attention not only on formalisation, but also on other classical dimensions of organisational design, such as specialisation, standardisation, centralisation and configuration (Pugh et al. 1968), which can affect the particular choices in EO. Based on our findings, we expect these relationships to be moderated by environmental-level variables at both the local and macro level. Therefore, we believe that the most promising avenue for further research is to test the moderating role of both structural and other environmental-level variables in comparative studies.

References

Adler, P. S./Borys, B. (1996): Two types of bureaucracy: enabling vs. coercive, in: Administrative Science Quarterly, 41, 1, 61-89.

Altinay, L./Wang, C.L. (2011): The influence of an entrepreneur's socio-cultural characteristics on the entrepreneurial orientation of small firms, in: Journal of Small Business and Enterprise Development, 18, 4, 673-694.

Anderson, B./Kreiser, P./Kuratko, D./Hornsby, J./Eshima, Y. (2015): Reconceptualizing Entrepreneurial Orientation, in: Strategic Management Journal, 36, 1579-1596.

Antoncic, B./Hisrich, R.D. (2003): Clarifying the intrapreneurship concept, in: Journal of Small Business and Enterprise Development, 10, 1, 7-24.

Armstrong, J.S./Overton, T.S. (1977): Estimating nonresponse bias in mail surveys, in: Journal of Marketing Research, 14, 3, 396–402.

Azar, G./Drogendijk, R. (2014): Psychic Distance, Innovation, and Firm Performance, in: Management International Review, 54, 5, 581-613.

https://doi.org/10.5771/0949-6181-2018-3-377
Generiert durch IP '3.144.84.186', am 13.09.2024, 12:29:44.
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

Baird, I.S./Thomas, H. (1985): Toward a contingency model of strategic risk taking, in: Academy of Management Review, 10, 2, 230-243.

Baum, J.R./Wally, S. (2003): Strategic decision speed and firm performance, in: Strategic Management Journal, 24, 11, 1102-1129.

Blau, P. (1970): Decentralization in bureaucracies, in: Zald, M.N., Power in organizations, Vanderbilt University Press, Nashville.

Boski, P. (2009): Kulturowe ramy zachowań społecznych, Warszawa, Wydawnictwo Naukowe PWN.

Brambor, T./Clark, W./Golder, M. (2006): Understanding interaction models: Improving empirical analyses, in: Political Analysis, 14, 63–82.

Bruton, G./Lau, C.M./Obloj, K. (2014): Institutions, resources, and firm strategies: A comparative analysis of entrepreneurial firms in three transitional economies, in: European Journal of International Management, 8, 6, 697-720.

Burns, T./Stalker, G.M. (1961): The Management of innovation, Tavistock Publications, London.

Central Statistical Office (2014): Activity of non-financial enterprises in 2012 (Excel file), publication available on the Internet www.stat.gov.pl.

Chang, S-J./Witteloostuijn, A./Eden, L. (2010): From the Editors: Common method variance in international business research, in: Journal of International Business Studies, 41, 2, 178-184.

Child, J. (1972): Organization structures, environment, and performance: the role of strategic choice, in: Sociology, 6, 1, 1–22.

Cohen, J./Cohen, P. (1983): Applied Multiple Regression/Correlation Analysis for the Behavioural Sciences, Lawrence Erlbaum Associates, Hillsdale, NJ.

Covin, J./Wales, W. (2012): The measurement of entrepreneurial orientation, in: Entrepreneurship Theory and Practice, 36, 4, 677-702.

Covin, J.G./ Lumpkin, G.T. (2011): Entrepreneurial orientation theory and research: reflections on a needed construct, in: Entrepreneurship Theory and Practice, 35, 5, 855-872.

Covin, J.G./Slevin, D.P. (1989): Strategic management of small firms in hostile and benign environments, in: Strategic Management Journal, 10, 1, 75–87.

Covin, J.G./Slevin, D.P. (1990): New venture strategic posture, structure, and performance: An industry life cycle analysis, in: Journal of Business Venturing, 5, 2, 123-135.

Covin, J.G./Slevin, D.P. (1991): A conceptual model of entrepreneurship as firm behavior, in: Entrepreneurship Theory and practice, 16, 1, 7-25.

Crozier, M. (1964): The bureaucratic phenomena, University of Chicago Press, Chicago.

Cruz, C./Nordqvist, M. (2012): Entrepreneurial orientation in family firms: a generational perspective, in: Small Business Economics, 38, 1, 33-49.

De Clercq, D./Dimov, D./Thongpapani, N. (2013): Organizational social capital, formalization and internal knowledge sharing in entrepreneurial orientation formation, in: Entrepreneurship Theory and Practice, 37, 3, 505-537.

Dickson, P./Weaver, K. (2008): The role of the institutional environment in determining firm orientations towards entrepreneurial behavior, in: International Entrepreneurship and Management Journal, 4, 4, 467-483.

https://doi.org/10.5771/0949-6181-2018-3-377
Generiert durch IP '3.144.84.186', am 13.09.2024, 12:29:44.
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

Doblinger, C./Dowling, M./Helm, R. (2016): An institutional perspective of public policy and network effects in the renewable energy industry: Enablers or disablers of entrepreneurial behaviour and innovation?, in: Entrepreneurship & Regional Development, 28, 1-2, 126-156.

Dowell, G./Swaminathan, A. (2006): Entry timing, exploration and firm survival in the early U.S. bicycle industry, in: Strategic Management Journal, 27, 12,1159-1182.

Ebben, J./Johnson, A. (2005): Efficiency, Flexibility, or Both? Evidence Linking Strategy to Performance in Small Firms, in: Strategic Management Journal, 26, 1249–1259.

Eggers, F./Kraus, S./Hughes, N./Laraway, S./Snycerski, S. (2013): Implications of customer and entrepreneurial orientations for SME growth, in: Management Decision, 51, 4, 524-546.

Emery, F.E./Trist, E.L. (1965): The causal texture of organizational environments, in: Human Relations, 1, 21-32.

Entrialgo, M./Fernández, E./Vázquez, C.J. (2001): The effect of the organizational context on SME's entrepreneurship: Some Spanish evidence, in: Small Business Economics, 16, 3, 223-236.

European Commission (2016): Entrepreneurship and Small and medium-sized enterprises (SMEs), https://ec.europa.eu/growth/smes_pl, retrieved: 4.12.2016.

Fayolle, A./Basso, O./Bouchard, V. (2010): Three levels of culture and firms' entrepreneurial orientation: A research agenda, in: Entrepreneurship and Regional Development, 22, 7/8, 707-730.

Feldman M.S./March, J.G. (1981): Information in organizations as signal and symbol, in: Administrative Science Quarterly, 26, 2, 171-186.

Filser, M./Eggers, F./Krau, S./Málovics, E. (2014): The effect of financial resource availability on entrepreneurial orientation, customer orientation and firm performance in an international context: an empirical analysis from Austria and Hungary, in: Journal of East European Management Studies, 19, 1, 7-30.

George, B.A./Marino, L. (2011): The epistemology of entrepreneurial orientation: conceptual formation, modeling and operationalization, in: Entrepreneurship Theory and Practice, 35, 5, 989-1024.

Guth, W.D./Ginsberg, A. (1990): Guest Editors' Introduction: Corporate Entrepreneurship, in: Strategic Management Journal, 11, 4, 5-15.

Hall, P.A./Soskice, D. (2001): An Introduction to Varieties of Capitalism. In: Hall P.A. and Soskice, D. (eds.), Varieties of Capitalism: The Institutional Foundations of Comparative Advantage. Oxford: Oxford University Press, pp. 1–70.

Hall, R.H. (1974): Organizations: structure and process, Prentice-Hall, London.

Henderson, R.M./Clark, K.B. (1990): Architectural innovation: the reconfiguration of existing product technologies and the failure of established firms, in: Administrative Science Quarterly, 35, 1, 9-30.

Heugens, P. (2005): A neo-Weberian theory of the firm, in: Organization Studies, 26, 4, 547-567.

https://doi.org/10.5771/0949-6181-2018-3-377
Generiert durch IP '3.144.84.186', am 13.09.2024, 12:29:44.
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

Hirst, G./van Knippenberg, D./Chen, C.H./Sacramento, C.A. (2011): How does bureaucracy impact individual creativity? A cross-level investigation of team contextual influences on goal orientation–creativity relationships, in: Academy of Management Journal, 54, 3, 624–641.

Hofstede, G. (2001): Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations, Sage, London.

House, R.J./Hanges, P.J./Javidan, M./Dorfman, P.W./Gupta, V. (2004): Culture, Leadership, and Organizations, The Globe Study of 62 Societies, Sage, Thousand Oaks.

Kang, S.C./Snell, S.A. (2009): Intellectual capital architectures and ambidextrous learning: a framework for human resource management, in: Journal of Management Studies, 46, 1, 65-92.

Khandwalla, P.N. (1977): The design of organizations, Harcourt Brace Jovanovich, New York.

Kowalik, I./Danik, L./Sikora, T. (2017): Entrepreneurial orientation elements in the Polish international new ventures, in: Baltic Journal of Management, 12, 2, 194-213.

Kyrgidou, L.P./Spyropoulou, S. (2012): Drivers and performance outcomes of innovativeness: an empirical study, in: British Journal of Management, 24, 3, 281-298.

Lawrance, P.R./Lorsch, J.W. (1967): Organization and environment: managing differentiation and integration, Harvard University Press, Boston.

Lee, G.K. (2008): Relevance of organizational capabilities and its dynamics: what to learn from entrants' product portfolios about the determinants of entry timing, in: Strategic Management Journal, 29, 12, 1257-1280.

Levinthal, D.A./March, J.G. (1993): The myopia of learning, in: Strategic Management Journal, 14, 8, 95-112.

Li, Y./Gui, H./Liu, Y./Li, M. (2008): Incentive mechanisms, entrepreneurial orientation, and technology commercialization: evidence from China's transitional economy, in: Journal of Product Innovation Management, 25, 1, 63-78.

Lumpkin, G.T./Dess, G.G. (1996): Clarifying the entrepreneurial orientation construct and linking it to performance, in: Academy of Management Review, 21, 1, 135–172.

Lumpkin, G.T./Dess, G.G. (2001): Linking two dimensions of entrepreneurial orientation to firm performance, in: Journal of Business Venturing, 16, 5, 429-451.

Manolova, T.S./Manev, I.M./Gyoshev, B. S. (2014): Friends with money? Owner's financial network and new venture internationalization in a transition economy, in: International Small Business Journal, 32, 8, 944-966.

Marquis C./Tilcsik A. (2013): Imprinting: Toward a multi-level theory, in: Academy of Management Annals, 7, 1, 193–243.

Merz, G.R./Sauber, M.H. (1995): Profiles of managerial activities in small firms, in: Strategic Management Journal, 16, 5, 551-564.

Meynhardt, T./Diefenbach, F.E. (2012): What drives entrepreneurial orientation in the public sector? Evidence from Germany's Federal Labor Agency, in: Journal of Public Administration Research and Theory, 22, 4, 761-792.

Michaels, R.E./Cron, W.L./Dubinsky, A.J./Joachimsthaler, E.A. (1988): Influence of formalization on the organizational commitment and work alienation of salespeople and industrial buyers, in: Journal of Marketing Research, 25, 4, 376–383.

https://doi.org/10.5771/0949-6181-2018-3-377
Generiert durch IP '3.144.84.186', am 13.09.2024, 12:29:44.
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

Miller, D. (1983): The correlates of entrepreneurship in three types of firms, in: Management Science, 29, 7, 770–791.

Miller, D. (2011): Miller (1983) revisited: a reflection on EO research and some suggestions for the future, in: Entrepreneurship Theory and Practice, 35, 5, 873-894.

Monsen, E./Boss, R. (2009): The impact of strategic entrepreneurship inside the organization: Examining job stress and employee retention, in: Entrepreneurship Theory and Practice, 33, 1, 71-104.

Nelson, R./Winter, S. (1982): An evolutionary theory of economic change, Belknap. Cambridge, MA.

Nunnally, J.C./Berstein, I.H. (1994): Psychometric Theory, McGraw-Hill, New York.

Obloj, T./Obloj, K./Pratt, M. (2010): Dominant logic and entrepreneurial firms performance in a transitional economy, in: Entrepreneurship Theory and Practice, 34, 1, 151-170.

Ocasio, W. (1977): Towards an attention-based view of the firm, in: Strategic Management Journal, 18, 187-206.

Peltoniemi, M. (2011): Reviewing Industry Life-cycle Theory: Avenues for Future Research, in: International Journal of Management Reviews, 13, 4, 349–375.

Podsakoff, P.M./MacKenzie, S.B./ Lee, J.Y./ Podsakoff, N.P. (2003): Common method biases in behavioral research: A critical review of the literature and recommended remedies, in: Journal of Applied Psychology, 88, 5, 879–903.

Porter, M. E. (1980): Competitive Strategy: Techniques for Analyzing Industries and Competitors, The Free Press, New York.

Pugh, D. S./Hickson, D. J./Hinings, C. R./Turner, C. (1968): Dimensions of organization structure, in: Administrative Science Quarterly, 13, 1, 65-105.

Pugh, D.S. (1984): Organization theory: selected readings, Penguin Books, London.

Rauch, A./Wiklund, J./Lumpkin, G.T./Frese, M. (2009): Entrepreneurial orientation and business performance, Entrepreneurship Theory and Practice, 33, 3, 761-787.

Robinson, W.T./Fornell, C./Sullivan, M. (1992): Are market pioneers intrinsically stronger than later entrants?, in: Strategic Management Journal, 13, 8, 609-624.

Ruiz-Ortega, M. J./Parra-Requena, G./Rodrigo-Alarcon, J./Garcia-Villaverde, P. (2013): Environmental dynamism and entrepreneurial orientation. The moderating role of firm's capabilities, in: Journal of Organizational Change Management, 26, 3, 475-493.

Saeed, S./Yousafzai, S./Engelen, A. (2014): On cultural and macroeconomic contingencies of the entrepreneurial orientation-performance relationship, in: Entrepreneurship Theory and Practice, 38, 3, 255-290.

Schwenk, C. R./Shrader, C.B. (1993): Effects of formal strategic planning on financial performance in small firms: A meta-analysis, in: Entrepreneurship Theory and Practice, 17, 3, 53-64.

Scott, W.R. (2001): Institutions and Organizations, 2nd edn. Thousand Oaks: Sage.

Shinkle, G. A.,/Kriauciunas A. P. (2012): The impact of current and founding institutions on strength of competitive aspirations in transition economies., in: Strategic Management Journal, 33, 4, 448-458.

Siggelkow, N. (2002): Evolution toward fit, in:. Administrative Science Quarterly, 47, 1, 125-159

https://doi.org/10.5771/0949-6181-2018-3-377
Generiert durch IP '3.144.84.186', am 13.09.2024, 12:29:44.
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

Sijtsma, K. (2009): On the Use, the Misuse, and the Very Limited Usefulness of Cronbach's Alpha, in: Psychometrika, 74, 1, 107–120.

Simon, H.A. (1947): Administrative behaviour, New York, Macmillan.

Simsek, Z./Heavey, C./Veiga, J. (2010): The impact of CEO core self-evaluation on the firm's entrepreneurial orientation, in: Strategic Management Journal, 31, 1, 110-119.

Smith, E. (2007): Gender influence on firm-level entrepreneurship through the power structure of boards, in: Women in Management Review, 22, 3, 168 - 186.

Snizek, W.E./Bullard, J.H. (1983): Perception of bureaucracy and changing job satisfaction: A longitudinal analysis, in: Organizational Behavior and Human Performance, 32, 2, 275–287.

Soininen, J./Puumalainen, K./Sjogren, H./Lyria, P. (2013): Entrepreneurial orientation in small firms – values-attitudes-behavior approach, in: International Journal of Entrepreneurial Behaviour and Research, 19, 6, 611-632.

Sousa, C./Bradley, F. (2005): Global markets: does psychic distance matter?, in: Journal of Strategic Marketing, 13, 1, 43-59.

Thompson, J.D. (1967): Organizations in action, McGraw-Hill, New York.

Verreynne, M-L./Meyer, D. (2010): Small business strategy and the industry life cycle, in: Small Business Economics, 35, 4, 399-416.

Wales, W.J./Gupta V.K.G./Mousa F.T. (2013): Empirical research on entrepreneurial orientation: An assessment and suggestions for future research, in: International Small Business Journal, 31, 4, 357-383.

Weber, M. (1924): The theory of social and economic organization, The Free Press, New York.

Weiss, A.M./Heide J.B. (1993): The nature of organizational search in high technology markets, in: Journal of Marketing Research, 30, 2, 220-33.

Wiklund, J./Shepherd, D. (2005): Entrepreneurial orientation and small business performance: a configurational approach, in: Journal of Business Venturing, 20, 71-91

Yang, H./ Dess, G.G. (2007): Where do entrepreneurial orientations come from? An investigation on their social origin, in G. T. Lumpkin & J. A. Katz (Eds.), Entrepreneurial strategic processes: Advances in entrepreneurship, firm emergence and growth, Vol. 10: 223-247, Greenwhich, CT: JAI Press.

Zahra, S.A. (1991): Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study, in: Journal of Business Venturing, 6, 4, 259-285.

Zahra, S.A./Jennings, D.F./Kuratko, D.F. (1999): The antecedents and consequences of firm-level entrepreneurship: the state of the field, in: Entrepreneurship Theory & Practice, 24, 2, 45-65.

Zur, A./Walega, A. (2015): Routines do matter: role of internal communication in firm-level entrepreneurship, in: Baltic Journal of Management, 10, 1, 119 - 139.

https://doi.org/10.5771/0949-6181-2018-3-377
Generiert durch IP '3.144.84.186', am 13.09.2024, 12:29:44.
Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.