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The importance of culture for enterprise dynamics: the role of type and strength of culture

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ABSTRACT

Nowadays, enterprises can gain and sustain a competitive advantage in hypercompetitive environments for only a limited period of time. In order to be able to do that, enterprises must be dynamic. Even though – several authors suggest a positive association between organisational culture and the enterprise's dynamic – we are still lacking the empirical support for such assertion. Therefore, we empirically tested the association between the type and strength of culture and the level of enterprises' dynamics. Since organisational culture and the enterprises' dynamics are both a complex phenomenon, we applied a case study approach combined with quantitative methods. The research indicates that the adhocracy culture type positively influences the level of enterprises' dynamics. Regarding the strength of culture, our research results show that positive effects of strong culture exceed the eventual negative effects of such culture and positively influence the level of enterprises' dynamics.

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Introduction

The new competitive landscape is constituted by rapid changes and increasing globalisation (Hoskisson, Hitt, Wan, & Yiu, 1999), and recent research (Wiggins & Ruefli, 2005) shows that the average period for which enterprises are able to sustain a competitive advantage has decreased over time. According to the opinion of some authors (e.g., Ambrosini & Bowman, 2009; Rindova & Kotha, 2001; Styhre, 2002; Simha & Cullen, 2012), a competitive advantage in hypercompetitive environments can only be enjoyed for limited period of time. This phenomenon is not limited to certain industries (e.g., high-technology industries), but is seen across a broad range of industries (Barreto, 2010). The pattern of evolution of almost all successful firms indicates that they evolve through periods of incremental change punctuated by environmental shifts and revolutionary change (Styhre, 2002); incremental change is absolutely necessary for short-term success, but insufficient for long-term success (Tushman & O'Reilly, 1996). Therefore, firms should be managed in such a way that they can build successive temporary advantages by effectively responding to successive rapid environmental changes – in short, enterprises must be 'dynamic'. According to Stacey, 'dynamic phenomena are ones that displays patterns of change over time' (2011,

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p. 28). One of the recent theoretical concepts addressing the problem of building a competitive advantage in a changing environment is the dynamic capabilities approach developed by Teece, Pisano, and Shuen (1997; also Teece, 2007), which emerged as the dominant approach to explain organisational adaptation within the strategic management theory. Within the organisational literature, successful organisations in dynamic environments are seen to be ambidextrous; such organisations successfully manage trade-offs between conflicting demands for alignment and adaptability (Gibson & Birkinshaw, 2004). As O'Reilly and Tushman (2007) noted, such organisations are successful at pursuing exploration and exploitation. O'Reilly and Tushman (2007, p. 40) linked the concept of ambidextrous organisations with the dynamic capabilities concept, where ambidexterity is understood as a dynamic capability that 'helps organisations sense and seize new opportunities and to mitigate the effects of path dependence'. However, even earlier the needed dynamics of enterprises engaged researchers, as can be seen through a dynamic enterprise concept developed by Pümpin and Prange (1995). According to the authors, a dynamic enterprise displays such characteristics that enable fast respond to the environmental changes.

In looking for answers to the question on how enterprises can effectively respond to rapid environmental changes, the role of organisational culture has been addressed as well. Organisational culture has often been treated as a predictor variable that is antecedent to a potential outcome (e.g., performance) (Ralston, Terpstra-Tong, Terpstra, Wang, & Egri, 2006), a key variable for the success of innovations (e.g., Detert, Schroeder, & Mauriel, 2000; Tellis, Prahbu, & Chandy, 2009), and a main predecessor of enterprise performance. Bock et al. (2012) found a positive association between a creative culture (i.e., culture that supports creativity) and strategic flexibility as such culture reduces resistance to change. Many other research studies have exposed the importance of culture in enabling a firm to react to internal as well as external forces, such as changes in the global marketplace. The need to actively manage organisational culture that can handle incremental and discontinuous change was highlighted by Tushman and O'Reilly (1996) as one of the most demanding aspects in the management of strategic innovation and change. The culture should be flexible and adaptable (Tuan, 2012). A widely shared corporate culture complemented by (sub) cultures that are differentiated between evolutionary and revolutionary parts of a firm (so called 'tight-loose' aspect of the organisational culture) is viewed as one of the essential conditions for ambidexterity (Tushman & O'Reilly, 1996). Wang and Rafiq (2012, p. 5) even developed a concept of 'ambidextrous organisational culture'. The importance of culture was recognised by Pümpin and Prange (1995), who especially exposed the dual nature of organisational culture as an important element of a dynamic enterprise; a dynamic enterprise should develop a culture where creativity and innovativeness are stimulated as well as a culture oriented toward the realisation of defined goals and objectives.

Tushman and O'Reilly (1996) called attention to the problem of cultural inertia, which can be an obstacle for enterprises' dynamics, especially in older and larger firms. With the passage of time, the culture of larger and more established firms becomes (Majumdar, 2000, p. 60) 'sticky and hard to change because of commitments to particular ways of doing things'. According to Tushman and O'Reilly (1996), the more successful organisation has been, the more institutionalised or ingrained norms, values, and lessons are. When confronted with discontinuous change, a culture that has fostered success can quickly become a significant barrier to change. As such, culture can provide a competitive advantage, but it can also create

obstacles to the innovation and change necessary to be successful. Culture is a key to both short-term success and, unless managed correctly, long-term failure (Tushman & O'Reilly, 1996). According to Thommen (2003) and Steinmann and Schreyögg (2005), not only the type, but also the strength of culture plays a crucial role in developing and sustaining the long-term success of a firm. A strong culture has often been found to positively influence the enterprise's performance (e.g., Huczynski & Buchanan, 2007; Tushman & O'Reilly, 1996). However, the possible negative effects of a strong culture have been reported as well (e.g., Steimann & Schreyögg, 2005).

Even though, several authors find organisational culture to play an important role in building and sustaining a dynamic nature of an enterprise and even describe the type or characteristics of the culture that would positively influence an enterprise's dynamics, they rarely provide empirical support for such assertions. Therefore, the main research questions that we address are: What type of culture or even a combination of culture types fosters the dynamics of a firm? Does a strong culture (besides the type of culture) play a decisive role in achieving and sustaining a firm's dynamics?

We build our research on the role of culture in achieving and sustaining a firm's dynamics on Pümpin and Prange's (1995) construct of a dynamic enterprise, which is based on evolutionary theory and strategic management theory. As enterprises' dynamics are strongly connected with the capabilities to explore and exploit, we also draw from research on the dynamic capabilities approach (e.g., Teece, 2007; Teece et al., 1997) which is developed as an extension of the resource-based view (RBV) of dynamic markets. We also build on the research on ambidextrous organisations (e.g., Gibson & Birkinshaw, 2004; Simsek, Heavey, Veiga, & Souder, 2009; Tushman & O'Reilly, 1996), which is viewed as an emerging research paradigm in organisational theory (e.g., Simsek et al., 2009).

The reasons for focusing our research upon the type and strength of organisational culture for achieving and sustaining a firm's dynamics are twofold. First, enterprises that want to survive and prosper in dynamic environments must be dynamic. Therefore, enterprises must be able to resolve tensions between innovation and adaptation as well as between replication and optimisation, which represent antagonistic modes of enterprises' development (e.g., Güttel & Konlechner, 2009). Second, organisational culture has been shown to be an important factor in improving firms' effectiveness and strategic competitive advantage (for references, see Ralston et al., 2006). Although studies within the dynamic capability concept, concept of ambidexterity, and a dynamic enterprise's construct (e.g., Barreto, 2010; Pümpin & Prange, 1995; Raisch & Birkinshaw, 2008; Simsek et al., 2009; Tushman & O'Reilly, 1996) have provided certain useful cognitions on the role of culture, many of them are theoretical in nature and consequently lacking of empirical support that would broaden our understanding of the linkages among the type and strength of culture and the dynamics of an enterprise.

In order to explore the complex relationships between the type and strength of culture and enterprises' dynamics, we divided our article into four sections. Following the introductory section, the second section discusses the underlying theories and concepts of organisational culture, a dynamic enterprise, dynamic capabilities, and ambidextrous organisations; it also develops the hypotheses. The third section discusses the methodology, the measurement instrument, sampling, and data collection as well as research results. The last section outlines the most significant conclusions and suggests directions for future research.

Theoretical background and hypothesis development

Organisational culture

No universal definition of organisational culture exists (e.g., Detert et al., 2000). Schein (1992) defined organisational culture as 'a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and therefore to be taught to new members as the correct way to perceive, think and feel in relation to those problems'. Organisational culture is often defined as consisting of a set of beliefs, values, and behaviour patterns that shape the behaviour of organisational members and build the organisation's core identity (e.g., Tuan, 2012). Consensus exists among researchers on the importance of organisational culture for firms' effectiveness (Ralston et al., 2006).

A variety of organisational culture models have been developed (for references, see Ralston et al., 2006), and various typologies of organisational culture have been identified, the most often-cited being those of Schwartz and Davis (1981), Deal and Kennedy (1982), Hofstede (2000), Schein (1992), Sathe (1984), and Cameron and Quinn (1999). For this research, we adopt Cameron and Quinn's (1999) typology of culture, which includes four types of culture (see also Ralston et al., 2006): the clan (consensual) culture, the adhocracy (entrepreneurial) culture, the market (competitive) culture, and the hierarchical (bureaucratic) culture. Figure 1 represents the basic characteristics of four culture types. Firms with the clan culture (flexibility/internal orientation) are family-type organisations held together by interpersonal loyalty, trust, commitment, and tradition. Participation, teamwork, and consensus are encouraged. Firms with the adhocracy culture (flexibility/external orientation) are dynamic and entrepreneurial organisations in which employees are committed to experimentation and innovation. Individual initiative, freedom, and continuous improvement are understood as the key elements of being on the cutting-edge of output leadership. The market culture (control/external orientation) is evident in competitive and hard-driving organisations in which employees are expected to be aggressive and goal-oriented producers.

One major goal is increasing market share and maximising productivity. Firms with the hierarchical culture (control/internal orientation) are formalised and structured organisations in which smooth functioning, stability, and efficiency are at the front. Theoretically, these four cultural types exist simultaneously in all organisations. Cameron and Quinn (1999) further proposed the Organisational Culture Assessment Instrument (OCAI) methodology to determine the type of culture in an organisation, thereby providing a useful instrument for analysing the culture within organisations.

According to Thommen (2003) and Steinmann and Schreyögg (2005), not only the type, but also the strength of culture plays a role in developing and sustaining the long-term performance of a firm. An enterprise with a strong culture is the one with a high level of values and high norms anchoring, a high level of agreement, and significant system and environmental compatibility. Therefore, Thommen (2002) proposed the following specific criteria for judging and analysing the strength of enterprise culture: the level of anchoring, which shows how much the values and norms are accepted by co-workers, the level of agreement, which defines the collective character of cultural norms and values, system compatibility, which is the level of harmonisation of organisational culture with all other systems of an enterprise, and compatibility with the environment. The effects of strong culture can be positive (e.g., Steinmann & Schreyögg, 2005), resulting in, for example, clear behavioural orientation, untroubled communication, fast decisions, prompt implementation,

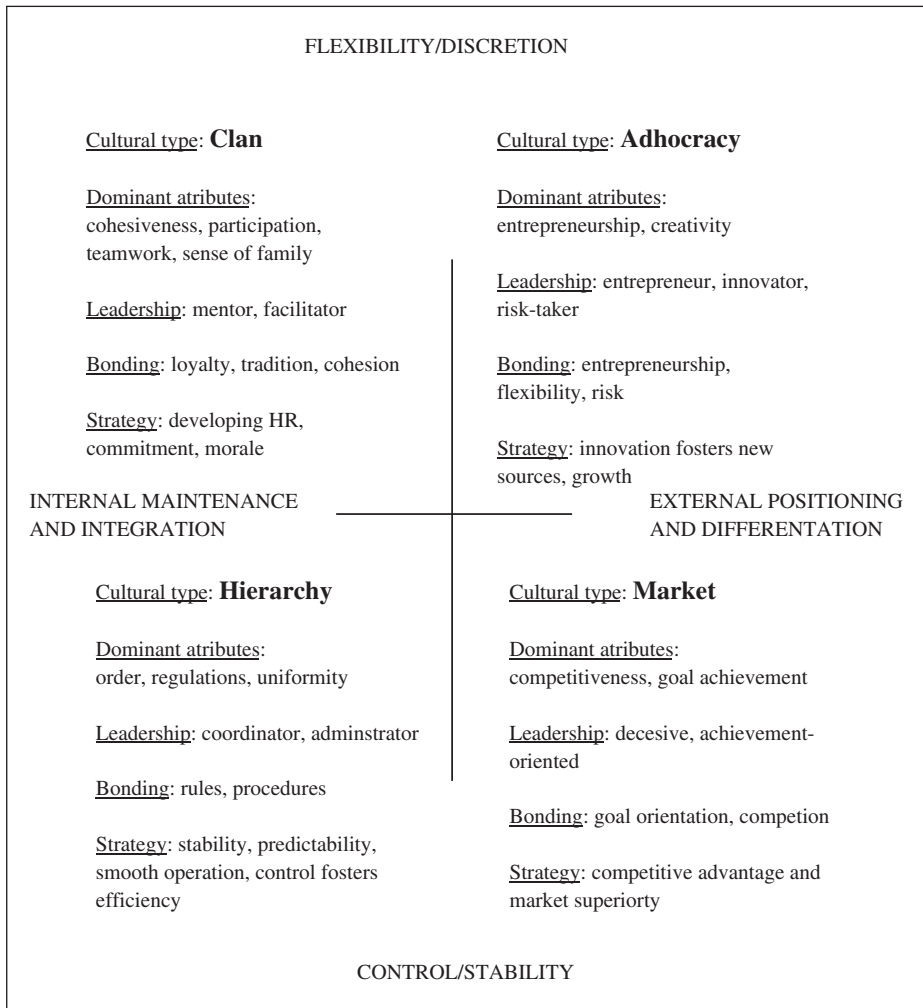


Figure 1. The competing values model of organisational culture (source Ralston et al., 2006, p. 830).

low control, motivation and team spirit, and stability. However, some negative effects of a strong organisational culture also exist, such as a tendency toward a closed system, new orientation blocking, implementation obstacles, and the absence of flexibility. According to Steinmann and Schreyögg (2005) strong organisational culture can be a dangerous obstacle in fast-changing environments due to its rigidity and inflexibility. On the other hand, Huczynski and Buchanan (2007) argued that a positive relationship exists between strong culture and organisational performance. In their opinion, the well-developed and business-specific culture in which management and employees are thoroughly socialised can underpin stronger organisational commitment, higher morale, and better performance.

The concept of a dynamic enterprise

Finding answers to the question of how to sustain a competitive advantage and long-term performance triggered Pümpin and Prange's (1995) work, which introduced the idea of a

dynamic enterprise within their model of enterprise development. They based their research on the life cycle concept and proposed four typical enterprise configurations – namely, a pioneer enterprise, a growing enterprise, a mature enterprise, and an enterprise in turnover – for describing the developmental stages. Pümpin and Prange (1995) combined the developmental characteristics of an enterprise with the need to adjust the governance and management of an enterprise to its developmental/growth following the St Gallen model of integral management (Bleicher, 1996; Rüeegg-Stürm, 2002; Spickers, 2004). According to Pümpin and Prange (1995), the implemented business opportunities define an enterprise's development. As business opportunities follow their own life cycles, leading to the decline stage, it is essential for an enterprise to search for and discover new business opportunities.

Pümpin and Prange (1995) exposed the dangerous tendencies of an enterprise toward the mature stage (i.e., mature enterprise) and argued the need for the revitalisation and dynamics of an enterprise. At the beginning of the mature stage an enterprise shows many positive characteristics. However, later during the mature stage, weaknesses become stronger and – if not adequately managed – can jeopardise an enterprise's existence. Pümpin and Prange (1995) highlighted several weaknesses, including the lack of flexibility needed for adjusting to environmental changes, numerous obstacles to innovations, increased resistance to risk, short-term management orientation with a focus on quantity, the belief that entrepreneurially oriented employees are undesirable, top management's loss of insights into markets, struggles among managers for leading positions within the enterprise, and bureaucracy. Similarly, some recent research has called attention to such weaknesses. For example, Schreyögg and Kliesch-Eberl (Schreyögg & Kliesch-Eberl, 2007; also Kraatz & Zajac, 2001) argued that, in environments characterised by rapid changes, organisational capabilities can easily invert from a strategic asset into a strategic burden due to path-dependency (i.e., 'history matters') and lock-in, structure inertia, and resource commitment. Therefore, enterprises face a dilemma: On one hand, they have to develop reliable patterns of selecting and linking resources in order to attain superior performance and competitive advantages; on the other hand, this endeavour represents a considerable risk of becoming locked into exactly these capabilities. Teece (2007) similarly argued that, as the enterprise grows, it has more assets to manage and protect against malfeasance and mismanagement. Shirking, free riding, the strategic manipulation of information, and internal complacency are all issues that established enterprises will confront continuously. Over time, successful enterprises develop hierarchies, rules, and procedures (routines) that begin to constrain interactions and behaviours unnecessarily. Except in very stable environments, such rules and procedures are likely to require constant revamping if superior performance is to be sustained. In particular, Teece (2007, p. 1327) stressed that incumbent enterprises tend to eschew 'radical competency-destroying innovation in favour of more incremental competency-enhancing improvements'. The existence of many standard procedures, established capabilities, complementary assets, and/or administrative routines can exacerbate decision-making biases against innovation.

According to Pümpin and Prange (1995), an enterprise should be managed in such a way that it never 'reaches' the mature stage. These authors introduced a special of enterprise configuration, labelled as 'a dynamic enterprise'. The main particularities of such an enterprise are its seeking and gaining of new and attractive business opportunities, multiplication of systems and processes, development of dual cultures, flexible legal regulations, development of dynamics promoters to avoid the dangers of 'entrepreneurial blindness', development of

strategic origins of success, flexible adaptation of structural and process organisation, limiting of the leadership system to a reasonable optimum, orientation toward the individual, and time orientation as 'being first' is of great importance in acquiring a strategic position.

The dynamic capabilities concept and ambidextrous organisations

The RBV explains the competitive heterogeneity based on the premise that close competitors differ in their resources and capabilities in important and durable ways. Sustained competitive advantage derives from the resources and capabilities firm controls that are valuable, rare, imperfectly imitable, and not substitutable (i.e., so-called VRIN attributes) (Barney, Wright, & Ketchen, 2001; Helfat & Peteraf, 2003). The reliance on a specific set of nurtured capabilities has been questioned in changing environmental conditions. Many authors (e.g., Ambrosini & Bowman, 2009; Barreto, 2010; Eisenhardt & Martin, 2000) have stressed that the RBV is essentially a static view and does not explain how valuable resources can be refreshed or renewed in changing environments. Although Barney et al. (2001) believe that the logic of RBV applies as well to rapidly changing markets (Snoj, Milfelner, & Gabrijan, 2007), research efforts have shifted to the ability to change and quickly develop new organisational capabilities as prerequisites for a competitive advantage. The dynamic capabilities concept/approach has been introduced as an extension of the RBV as one of the most promising approaches in dealing with the question on how enterprises can sustain superior enterprise performance in changing environments.

Teece et al. (1997, p. 516) defined dynamic capabilities as 'the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments'. According to Teece (2007, pp. 1319–1320), dynamic capabilities 'include difficult-to-replicate enterprise capabilities to adapt to changing customer and technological opportunities'. These capabilities differentiate the dynamic capabilities approach from other strategic frameworks in terms of adapting and extending existing competencies (Harreld, O'Reilly, & Tushman, 2007). Teece et al. (1997) perceive the essence of enterprises' competences and dynamic capabilities as being resident in the firms' organisational processes, which are in turn shaped by firms' assets (positions) and their revolutionary path. For analytical purposes, dynamic capabilities can be 'disaggregated into the capacity to sense and shape opportunities and threats, to seize opportunities, and to maintain competitiveness through enhancing, combining, protecting, and when necessary, reconfiguring the business enterprise's intangible and tangible assets' (Teece, 2007, pp. 1319–1320). The two fundamental capabilities – namely, to sense changes in an enterprise's environment and to seize opportunities and threats by reconfiguring both tangible and intangible assets to meet new challenges – are at the core of a firm's ability to survive and grow over time and represent the essence of dynamic capabilities (Harreld et al., 2007).

Many other definitions and conceptualisations of dynamic capabilities have been introduced since the adaptation of Teece et al.'s (1997) original definition (e.g., Eisenhardt & Martin, 2000; Zahra, Sapienza, & Davidsson, 2006; Zollo & Winter, 2002). For example, Barreto (2010, p. 271) defined a dynamic capability as 'the firm's potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and to change its resource base'. Ambrosini and Bowman (2009) asserted that dynamic capabilities are intentional efforts to change the firm's resource base. Wang and Ahmed (2007, p. 35) defined dynamic capabilities as 'a firm's behavioural

orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities and, most importantly, upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage'. Zollo and Winter (2002, p. 340) defined a dynamic capability as 'a learned and stable pattern of collective activity through which the organisation systematically generates and modifies its operating routines in pursuit of improved effectiveness'. Several authors (e.g., Ambrosini & Bowman, 2009; Barreto, 2010) have pointed to the limited empirical support of the dynamic capabilities concept as it is 'a rather vague and elusive [concept] which has thus far proven largely resistant to observation and measurement' (Kraatz & Zajac, 2001, p. 653).

Quite a number of researchers (for references, see Güttel & Konlechner, 2009) stress the link between dynamic capabilities approach and ambidexterity. According to O'Reilly and Tushman (2007, p. 12), dynamic capabilities 'are at the heart of the ability of a business to be ambidextrous – to compete simultaneously in both mature and emerging markets – to explore and exploit'. The authors build their arguments on the adaptive process of an enterprise, where dynamic capabilities are of great importance to the firm's ability to exploit existing assets and positions in a profitable way and simultaneously explore new technologies and markets; ambidexterity is about doing both (i.e., exploitation and exploration) (O'Reilly & Tushman, 2007). Simsek et al. (2009) proposed four generic types of ambidexterity. In the case of partitional ambidexterity, firms need to establish structurally independent units specialised in either exploration or exploitation, each having 'its own strategies, structures, cultures, and incentives systems' (Simsek et al., 2009, p. 884). In the case of harmonic ambidexterity the simultaneous pursuit of exploration and exploitation is achieved within a single business unit. Harmonic ambidexterity is also known as contextual ambidexterity (Gibson & Birkinshaw, 2004), and recent research suggests that simultaneous exploration and exploitation within the same business unit (or small firms) are not only possible (Bierly & Daly, 2007), but also crucial for business success in the short term and long-term sustainability (e.g., Bierly & Daly, 2007; Gibson & Birkinshaw, 2004; Wang & Rafiq, 2012) as well as for improving stakeholder satisfaction (e.g., Simsek et al., 2009).

Cyclical ambidexterity (i.e., the sequential pursuit of ambidexterity within a single unit), in which firms are engaged in long periods of exploitation and sporadic periods of exploration, is common for business units with a strong technological orientation, whereas reciprocal ambidexterity (i.e., the sequential pursuit of ambidexterity across units), which has received the least attention from researchers (Simsek et al., 2009) assumes reciprocal interdependence between exploration and exploitation units.

Organisational culture and enterprises' dynamics

According to Pümpin and Prange (1995), the main attention of a dynamic enterprise should be devoted to the parallel development of dual cultures. First, seeking and searching for new business opportunities demands a culture in which creativity and innovativeness are stimulated. The main characteristics of such a culture are individualism and entrepreneurship (especially intrapreneurship). Second, the multiplicative exploitation of attractive business opportunities demands a culture oriented toward the realisation of defined goals and objectives. These dual cultures are very different in nature, and it is difficult to avoid conflicts while implementing both. The management of a dynamic enterprise should therefore make a constant effort to explain these two different necessities (Pümpin & Prange, 1995).

Within the dynamic capabilities concept, which also addresses the question of the adaptability of firms, the role of culture has remained an under-researched issue. Teece (2007, p. 1,334) addressed the role of culture within the dynamic capability approach to certain extent by giving an important role to the top management, which ‘through its action and its communication has a critical role to play in garnering loyalty and commitment and achieving adherence to innovation and efficiency as important goals.’ The author did not discuss the issues of culture, commitment, and loyalty any further, leaving their full integration to other researchers. However, in the culture context, we find Teece’s (2007) discussion on the problem of the different ‘nature’ of two fundamental capabilities important (i.e., sensing and seizing). On this topic, Teece (2007) quoted March (1996, 2006), who found both exploration and exploitation to be necessary for adaptation, yet he also recognised that their adaptation is continuously threatened by the tendency of one to extinguish the other. According to Teece (2007), incompatibilities flow from the fact that exploration and exploitation compete for resources and that the mindsets and organisational routines needed are different. Therefore, simultaneously pursuing them is difficult. However, Teece (2007) argued that, with respect to different mindsets and routines, these can be relieved by having different organisational units or different parts of organisational units specialising to some degree in sensing as compared to seizing. This proposition is what Simsek et al. (2009; see also Wang & Rafiq, 2012) called structurally separated or partitional ambidexterity, as these units are not only structurally separated, but also characterised by their own culture.

Tushman and O’Reilly (1996, p. 26) pointed to the importance of a common overall culture, which is the glue that holds a successful company together; the key in such a firm is:

...a reliance on a strong, widely shared corporate culture to promote integration across the company and to encourage identification and sharing of information and resources – something that would never occur without shared values. The culture also provides consistency and promotes trust and predictability. Yet at the same time, individual units entertain widely varying subcultures appropriate to their particular businesses.

The authors expose the ‘tight–loose’ aspect of the culture, which is according to their opinion crucial for ambidextrous organisations and represents strong social control (Tushman & O’Reilly, 1996). It is ‘tight’ in that the corporate culture is broadly shared and emphasises norms critical for innovation, such as openness, autonomy, initiative, and risk taking. The culture is ‘loose’ in that manner in which the common values expressed vary according to the type of innovation required. According to Simsek et al. (2009), harmonic (or contextual) ambidexterity is a type of ambidexterity strongly linked to organisational culture. It is best achieved by creating a set of processes or systems that enable and encourage individuals to make their own judgement as to how best divide their time between the conflicting demands for alignment and adaptability (Gibson & Birkinshaw, 2004) whereas formal structures and processes are always embedded and conditioned by a broader organisational context of culture (Adler, Goldoftas, & Levine, 1999; Simsek et al., 2009). Therefore, contextual ambidexterity is grounded in the type of organisational culture that promotes both creativity and discipline (e.g., Simsek et al., 2009; Wang & Rafiq, 2012). Güttel and Konlechner (2009) stressed the importance of the creation of such an internal environment that facilitates the continuous and balanced performance of exploration and exploitation and where commonly shared cultural values and social norms are an important aspect of the contextually ambidextrous organisations. Core values emphasise high-performance expectations in exploration and exploitation as well as an ‘ambidextrous mindset’ ‘that favours exploration

and exploitation in an equal balance, a shared language, and mutual understanding' (Güttel & Konlechner, 2009, p. 162). Wang and Rafiq (2012) even conceptualised 'ambidextrous organisational culture' as being constituted of 'organisational diversity' and 'shared vision,' which enable contextual ambidexterity.

Hypotheses

Although the concept of dynamic capabilities, ambidexterity, and dynamic enterprise construct are not limited to enterprises of a certain size, we limit our research to small- and medium-sized enterprises (SMEs) where research (e.g., Bierly & Daly, 2007; Gibson & Birkinshaw, 2004; for references, see also Simsek et al., 2009) has provided evidence for enterprises' ability to simultaneously (i.e., harmonic ambidexterity or so-called contextual ambidexterity) or sequentially (i.e., cyclical ambidexterity) pursue exploitation and exploration within an independent unit (e.g., business unit or small to medium-sized firm), which is grounded in common organisational culture. Especially harmonic (or contextual) ambidexterity is the type of ambidexterity that is strongly linked to organisational culture (e.g., Simsek et al., 2009). Namely, larger firms often implement exploration and exploitation processes by establishing structurally separate business units (i.e., partitioned ambidexterity), where some of these units can focus entirely on exploitation and others entirely on exploration (e.g., Lubatkin, Simsek, Ling, & Veiga, 2006). These units are not only physically, but also culturally separated (e.g., Simsek et al., 2009).

Although many research studies have mentioned the important role of creative, flexible, or even ambidextrous culture for enterprises' dynamics, researchers have not provided any evidence regarding the type of culture or combination of culture types needed. Therefore, we build our research on the culture typology and methodology for determining the type of culture within an organisation developed by Cameron and Quinn (1999). Due to the many unresolved definitional problems within the dynamic capabilities approach, we build our research on the role of culture on the dynamic enterprise concept put forth by Pümpin and Prange (1995). Their concept defines the characteristics of a dynamic enterprise that provides the basis for conducting empirical research. As culture 'proffers unwritten guidelines as regards how to behave' (Tuan, 2012, p. 459), adhocracy and clan culture types which are 'of higher degree of flexibility or adaptability' (Tuan, 2012, p. 463) could be seen as possible antecedents of the firm's dynamics, whereas the adhocracy culture type seems more suitable due its external orientation. Therefore, the following hypothesis is developed:

H1: Adhocracy culture has a positive impact on the level of the presence of a dynamic enterprise's characteristics.

As many authors (e.g., Huczynski & Buchanan, 2007; Thommen, 2002; Tushman & O'Reilly, 1996; Wang & Rafiq, 2012) have stressed the importance of a strong, widely shared corporate culture that provides consistency, promotes trust and predictability, ensures a significant system and environmental compatibility, and is supported by a common vision and by supportive leaders, the following hypothesis is developed:

H2: The level of the presence of a dynamic enterprise's characteristics is the highest in the enterprises with the strong culture.

Research

Methodology

For the examination of the role of culture for fostering the dynamics of an enterprise, we decided on a mixed methods approach. We combined a multiple case study approach with quantitative methods. The use of case studies is suggested in combination with quantitative methods as undertaking case studies adds qualitative evidence in order to better understand the research results. Ambrosini and Bowman (2009) questioned the adequacy of quantitative methods in empirical research studies on dynamic capabilities. Quantitative methods usually ‘involve the use of proxy variables which may only capture tangible and visible aspects of phenomenon’ (Ambrosini & Bowman, 2009, p. 37). These authors believe that it is better to sacrifice some of the generalities of quantitative research and use qualitative, smaller sample studies, which are more appropriate for improving our understanding of the researched phenomenon. Simsek et al. (2009) stressed the importance of case studies and qualitative research in studying different types of ambidexterity as well, whereas Pümpin and Prange (1995) built their theoretical concept of a dynamic enterprise on the cognitions resulting from many case studies.

Measurement instrument

In order to achieve the validity of the measurements, the instrument was developed in three consecutive phases. In the first phase, the literature in the field was reviewed; in the second phase, in-depth interviews with 10 senior managers from Slovenian enterprises were conducted. The first version of the questionnaire was subsequently developed. In the third phase, the questionnaire was inspected by three expert judges (professors in the field of management and marketing research). The data on the final sample were collected during personal interviews. This method seemed to be the most appropriate approach as qualified interviewers were able to additionally explain the questions if a respondent lacked understanding.

The assessment of an enterprise’s dynamics was based on 10 characteristics/elements of a dynamic enterprise developed by Pümpin and Prange (1995), as previously discussed – namely, the seeking and gaining of new and attractive business opportunities, multiplication of systems and processes, development of dual cultures, flexible legal regulations, development of dynamics promoters, development of strategic origins of success, flexible adaptation of structural and process organisation, the limiting of the leadership system to reasonable optimum, orientation toward individuals, and time orientation. Single dynamics indicators were measured on a five-point continuous scale from -2 to +2 (where -2 means strongly disagree and +2 means strongly agree). This measure captures the respondents’ perception as to what extent a firm is implementing elements of a dynamic enterprise. The level of the presence of a dynamic enterprise’s characteristics is a sum of 10 indicators/elements.

For determining the type of enterprise culture, we followed the OCAI developed by Cameron and Quinn (1999), which has been empirically validated in many research studies (e.g., Duh, Belak, & Milfelner, 2010; Ralston et al., 2006; Tuan, 2012). This methodology to determine the type of culture in an organisation has been used in almost 10,000 organisations worldwide (Cameron, 2004). In determining the type of organisational culture, the methodology considers six key dimensions of organisational culture: (1) the dominant

characteristics of an organisation; (2) the dominant leadership style and approach; (3) the management of employees; (4) the organisational glue/bonding mechanisms that hold a firm together; (5) the strategic emphasis; and (6) the criteria of success that determine how success is defined and rewarded. Following the OCAI methodology, each dimension was analysed using four close-ended questions to which the participants responded by dividing 10 points among the alternatives (the highest number of points matched the alternative that was most similar to the respondent's organisation). The highest summary results under a certain culture type defined the dominant culture type in the examined enterprise.

In order to determine the strength of an enterprise culture, we followed Thommen's (2002, 2003) cognitions and criteria for cultural strength determination (as previously discussed in the text): the level of anchoring, the level of agreement, system compatibility, and the compatibility with the environment. The higher the value of the importance given to the criteria by the respondent, the stronger the culture of the enterprise examined. The respondents chose a value from -3 (disagree) to +3 (strongly agree). The enterprise faces a strong culture if the sum value was between 12 and 18, a medium culture if the sum value was between six and 12, and a weak culture if the sum value was negative or up to value six.

Sampling and data collection

For the purpose of this study, judgemental sampling was used, in which population elements were selected based on the expertise of the researchers. We believe that, by using such a procedure, the representative enterprises of the population were included. Seventy Slovenian SMEs were included in the judgemental sample. We defined those SMEs as enterprises that can be classified on the basis of the Slovenian Companies Act as micro (0 to 9 employees), small (10 to 49 employees) and medium enterprise (50 to 249 employees). Data were collected through in-depth case studies, including face-to-face interviews with 70 managers of SMEs selected in the sample, which were the main informants for the study. For the purpose of our research, the questionnaire was developed on the basis of the scientific theory presented above. The questionnaire was completed in face to face interview. The types of questions included in the questionnaire depended on the research construct chosen. We did not use any questions to check the credibility and the knowledge of the respondents, since all of them were part of the enterprises' owner/management segment. We assumed that the management of enterprises is responsible for dynamisation of the enterprises observed as well as for their culture. Furthermore, the questionnaire therefore contained several questions to determine the type of enterprise culture following OCAI developed by Cameron and Quinn (1999) OCAI, strength of the existing enterprise culture following Thommen's (2002, 2003) cognitions and criteria for cultural strength determination as well as to determine the dynamisation of the observed enterprises based on 10 characteristics/elements of a dynamic enterprise developed by Pümpin and Prange (1995). Additional data were collected with direct observations and documentations, thus enhancing data credibility. Data gathered were analysed systematically, and data collection and analysis were done several times concurrently. Sample characteristics and descriptive statistics concerning the enterprises' size and industry are presented in Table 1.

Table 1. Size and business activity (industry) of enterprises in the sample.

	No. of enterprises	%
<i>Size</i>		
Medium enterprises	28	40.0
Small enterprises	28	40.0
Micro enterprises	14	20.0
Total	70	100.0
<i>Business activity (industry)</i>		
Manufacturing	22	31.5
Construction	11	15.7
Wholesale, retail	8	11.4
Financial intermediation	6	8.5
Hotels and restaurants	4	5.7
Other	19	27.2
Total	70	100.0

Source: Compiled by the authors.

Validity and reliability of the constructs

In a frame of determination of type of culture of the observed enterprises we aimed to assess the six key dimensions of organisational culture developed by Cameron and Quinn (1999). The respondents were asked to rate their enterprises according to the six questions. Each question had four alternatives, where 10 points were distributed by the respondents among these four alternatives, giving a higher number of points to the alternative that was most similar to their organisation. For example, in question one, if you think alternative A is very similar to your organisation, alternatives B and C are somewhat similar, and alternative D is hardly similar at all, you might give five points to A, two points to B and C, and one point to D. The values, belonging to certain culture type were then summed together; therefore, also exploratory factor analysis (EFA) was not justified or meaningful.

The dimensionality of the enterprise dynamics construct was first assessed with EFA. Ten items were used in order to measure enterprise dynamics namely: the seeking and gaining of new and attractive business opportunities, multiplication of systems and processes, development of dual cultures, flexible legal regulations, development of dynamics promoters, development of strategic origins of success, flexible adaptation of structural and process organisation, the limiting of the leadership system to reasonable optimum, orientation toward individuals, and time orientation. EFA yielded the single factor solution ($KMO=0,847$). 57.32% of the variance of all items was explained by the variance of the single factor.

As can be observed from Table 2, all factor loadings except for the human focus are higher than .5, which is the indicator of convergent validity. Human focus however was not dropped, since we are of the opinion that it presents an important information value and cannot be omitted. Also Cronbach's alpha was higher than .8, meaning that the reliability of the enterprise dynamics construct was also established.

Research results

After the data were collected, the dominant types of culture for each enterprise were calculated following the methodology of Cameron and Quinn (1999). Following the methodology

Table 2. Factor matrix, means and standard deviations for enterprise dynamics indicators.

Items	Mean	Std. deviation	Factor loadings	Reliability
Development of strategic origins of success	1.29	1.206	0.767	0.872
Development of dual cultures	1.09	1.260	0.746	
Flexible legal regulations	0.63	1.553	0.746	
Limiting of the leadership system to reasonable optimum	0.71	1.534	0.738	
Flexible adaptation of structural and process organisation	0.07	1.609	0.659	
Time orientation	0.57	1.575	0.622	
The seeking and gaining of new and attractive business opportunities	0.99	1.313	0.610	
Development of dynamics promoters	1.03	1.318	0.539	
Multiplication of systems and processes	1.16	1.379	0.538	
Orientation toward individuals	1.21	1.273	0.408	

Scale: -3 (disagree); 3 (strongly agree)

KMO = 0.847

Total variance explained = 57.32%

Source: Compiled by the authors.

of Thommen's (2002, 2003) cognitions and criteria for culture strength determination, the enterprises were further divided into three groups according to the strength of their culture: strong culture, middle culture, and weak culture. The data in Table 3 show that the majority of enterprises were classified into the strong culture category. Then the strength of four types of culture (clan, adhocracy, market, hierarchical culture) was calculated for single enterprises. The mean strength of the culture for all enterprises are presented in Table 3. As the data indicate, the dominant type of culture is clan culture ($M=19.40$), following by hierarchical culture ($M=15.49$).

Our case study research further shows interesting cognitions on the dual culture. We focused our further study on enterprises, which the respondents defined as successfully developing dual cultures (the dual culture indicator was 2). Namely, not only flexibility and exploration-oriented activities geared toward adaptability are needed to cope with environmental challenges; the realisation of defined goals and objectives is also of crucial importance. Thus, individuals need to be engaged in exploitation-oriented activities geared toward alignment as well. Therefore, to a certain degree hierarchy and market culture characteristics are also needed due to the higher degree of control, whereas the hierarchy culture type seems less appropriate due to its internal focus and formality. For example, research results (Gibson & Birkinshaw, 2004) demonstrated that business units that were able to simultaneously develop capacities for aligned and adaptable behaviour used systems that were quite simple and involved less formality. Meanwhile, organisations with high levels of centralisation and formalisation, where top management is not always able to identify operational problems and propose the introduction of innovations for solving problems, are less inclined toward innovations (van Everdingen & Waarts, 2003). Therefore, for all enterprises with the dual culture indicator being 2, we observed the combination of these two types of culture, which ranked first and second among all culture types based on points received by respondents and together exceeded 50% of the total sum of points for determining the type of culture. Among the 31 such enterprises, 17 enterprises (54.8%) had the adhocracy and clan culture combination, eight enterprises (25.8%) had the clan and hierarchical culture combination, four enterprises (12.9%) had a combination of market

Table 3. Enterprises' dominant culture type and culture strength.

Culture strength	Frequency	%
Strong	47	67.1
Middle	20	28.6
Weak	3	4.3
Total	70	100.0
Culture type	Mean	SD
Clan	19.40	6.78
Adhocracy	13.39	4.62
Market	12.30	4.82
Hierarchical	15.49	6.60

Source: Compiled by the authors.

and hierarchical culture, and two enterprises (6.5%) had a combination of adhocracy and hierarchical culture (Table 4).

For all 31 enterprises we then observed the level of some enterprises' dynamics (Table 5). For the purpose of this observation, we divided enterprises into three groups based on the assessed level of enterprises' dynamics. In the group of enterprises with a high level of dynamics, we included all those enterprises whose sum value of the 10 dynamic indicators was between 14 and 20; the group of enterprises with a medium level of dynamics included those enterprises whose sum value was between seven and 13; and enterprises with a low level of dynamics had a sum value that was negative or up to six.

Contrary to the theoretical expectations that enterprises with a high level of dynamics would show the combination of adhocracy and market culture, our research shows that 65% of such dynamic enterprises have a combination of adhocracy and clan culture. The extensive presence of clan culture characteristics in the examined enterprises can be explained to a certain extent by the research carried out by Duh et al. (2010), which demonstrated that, in 82.4% of family enterprises and 43.8% of non-family enterprises, the clan culture was the prevailing type of culture. Such research results clearly raise the question of the number of family enterprises observed in our research, suggesting that the 'family character' of enterprises could be a missing variable and should be considered in future research.

The main methods for hypothesis testing were regression analysis for H1 and one-way analysis of variance for H2. First, a multivariate regression analysis model was developed through which the impact of a single culture type on the level of the presence of a dynamic enterprise's characteristics (shorter: the level of enterprise's dynamics) was tested.

The strength of a single firm's culture type was measured on a proportional scale, and represented an independent (predictor) variable (mean values in Table 3). The level of single enterprise dynamics was calculated by summing up all dynamics indicator scores (Table 2) for the single enterprise. The multiple determinant coefficient was significant, but only 5% of the response variable variance was explained by the predictor variables. The

Table 4. The presence of dual enterprise cultures.

Culture types combination	No. of enterprises	%
Adhocracy/clan	17	54.8
Clan/hierarchical	8	25.8
Market/hierarchical	4	12.9
Adhocracy/hierarchical	2	6.5
Total	31	100.00

Source: Compiled by the authors.

Table 5. The mean values for the level of enterprise's dynamics for enterprises with three types of cultural strength.

	N	Mean	Std. deviation
Middle	20	4.55	9.13
Strong	47	11.26	8.69
Weak	3	-2.67	11.85
Total	70	8.74	9.61

Source: Compiled by the authors.

Table 6. Dual enterprise cultures and the level of enterprises' dynamics.

Culture types combination	The level of enterprises' dynamics					
	High		Medium		Low	
	No. of enterprises	%	No. of enterprises	%	No. of enterprises	%
Adhocracy/clan	13	65.0	4	50.0	0	0.0
Clan/hierarchical	3	15.0	4	50.0	1	33.3
Market/hierarchical	3	15.0	0	0.0	1	33.3
Adhocracy/hierarchical	1	5.0	0	0.0	1	33.3
Total	20	100.0	8	100.0	3	100.0

Source: Compiled by the authors.

multicollinearity analysis showed no problem with multicollinearity in the model as variance inflation factors (VIF) were all lower than 5. The results in Table 7 indicated that only the adhocracy culture positively influences the level of enterprises' dynamics. The relationship is statistically significant at $p < 0.10$ and positive ($\beta = 0.244$). All other relationships were non-significant, meaning that other types of culture do not influence the level of enterprises' dynamics. Since the relationship is significant only for one predictor variable (adhocracy) which is represented with only eight cases at the lower level of significance ($p < 0.10$), we only give partially support for H1.

A one-way analysis of variance was used to test hypothesis H2. The level of an enterprise's dynamics was calculated as the sum of 10 characteristics/elements of a dynamic enterprise developed by Pümpin and Prange (1995). To assess the mean differences for each independent variable (culture strength) comparison, the F-statistic and p -value were used. The potential violation of the homogeneity of variance assumption was tested using Levene's test of equality of error variances. Levene's test showed that the variances in the dependent variable across groups were equal ($F = 0.394$; $p > 0.01$).

Table 8 shows a statistically significant difference in the level of enterprises' dynamics according to the enterprise culture strength. The F-statistic is statistically significant at the

Table 7. Results of multivariate regression analysis for culture type influence on the level of enterprises' dynamics.

	B	β	t	Sig.
(Constant)	3.177		0.306	
Clan	-0.119	-0.084	-0.488	0.627
Adhocracy	0.505	0.244	1.797	0.077
Market	-0.050	-0.022	-0.148	0.883
Hierarchical	0.104	0.067	0.447	0.657

Dependent variable: the level of enterprise's dynamics; $R^2 = 0.05$; $p < 0.05$.

Source: Compiled by the authors.

Table 8. One-way ANOVA for differences in the level of enterprises' dynamics according to three types of culture strength.

	Sum of squares	df	Mean square	F	Sig.
Between groups	1038.819	2	519.409	6.519	$p < 0.01$
Within groups	5338.553	67	79.680		
Total	6377.371	69			

Source: Compiled by the authors.

$p < 0.05$ level. Culture strength, therefore, has a significant impact on the level of enterprises' dynamics. Mean comparisons and post hoc analyses were used to determine where the differences resided. The mean values are presented in Table 5. The level of enterprises' dynamics is highest for enterprises with strong culture ($M=11.26$) and lowest for enterprises with weak culture ($M = -2.67$). According to Bonferroni's post hoc test, the significant differences in the level of enterprises' dynamics exist between enterprises with strong and middle culture and between enterprises with strong and weak culture. No significant differences in the level of enterprises' dynamics were determined between enterprises with middle and weak culture.

An additional 10 ANOVAs were run for every single element of a dynamic enterprise that was measured in the questionnaire. According to the enterprises' culture strength, statistical differences were confirmed for opportunities and multiplication at $p < 0.01$ and for the development of dual cultures, flexible legal regulations, development of dynamics promoters, development of strategic origins of success, flexible adaptation of structural and process organisation, limiting of the leadership system to reasonable optimum, and orientation toward individuals at $p < 0.05$.

Conclusion

The current research sought to examine the association between the type and strength of culture and the level of enterprises' dynamics. Our research demonstrates that the adhocracy type of culture positively influences the level of enterprises' dynamics. As discussed and presented earlier in the article, enterprises with the prevailing characteristics of the adhocracy type of culture concentrate on external positioning with a high degree of flexibility and individuality that is supported by an open system that promotes the willingness to act. It is generally a dynamic, entrepreneurial, and creative place to work, where people stick their necks out and take risks. Leaders are visionaries and use innovative and successful means, producing unique and original products and services. The enterprises with the prevailing characteristics of the adhocracy type of culture value creativity, willingness to experiment and take risks, personal autonomy, and responsiveness. The research results also show that the strength of culture is an important factor influencing the level of enterprises' dynamics. These results are in accordance with the cognitions of some authors (e.g., Huczynski & Buhanan, 2007; Thommen, 2003; Tushman & O'Reilly, 1996; Wang & Rafiq, 2012) on the importance of strong culture, thereby showing that positive effects of strong culture exceed the negative effects of such culture and positively influence the level of enterprises' dynamics. Contrary to some propositions, we could not confirm that the combination of culture types (i.e., dual cultures according to Pümpin and Prange's (1995) opinion) important for fostering enterprises' dynamics is the combination of adhocracy and market culture. Our case study research shows that more than half of enterprises with high level of dynamics and with 'developed' dual cultures are experiencing the combination of adhocracy and clan culture.

Considering the presented research results (heterogeneous distributions of the types of cultures as well as the missing significance) we can state that the conclusions can be justified only in part and therefore the practical implications presented further can be accepted only with limitations. These limitations will be seriously taken into account by the future research on enterprises' culture, its strength and dynamisation.

Anyhow, the research results have implications for managers of enterprises since recognising the firm's dominant culture can help managers assess their internal strengths and limitations of their strategies (Ralston et al., 2006) and, if needed, change the strategy or culture in order to become more dynamic. The change of organisational culture 'is thus a necessary precondition for organisational change efforts to take place and be sustained within the organisation' (Ralston et al., 2006, p. 826). This means that the basic premise on the fit among strategy, structure, culture, and processes is indeed important. Namely, in order to compete successfully, organisations have to be able to do both (Tushman & O'Reilly, 1996, p. 11), 'increasing the alignment or fit among strategy, structure, culture, and processes while simultaneously preparing for the inevitable revolutions required by discontinuous environmental changes.' Thus, the culture needs to be changed to reflect the new challenges (e.g., Tushman & O'Reilly, 1996); in the case of fostering an enterprise's dynamics, it means that the culture should reflect the challenges of the sensing and seizing of business opportunities. In the process of changing culture, an important role is played by owners/managers in SMEs as Thommen (2003) points out that the behaviour of a leader influences the perception of organisational culture among employees; owners'/managers' personal characteristics play an important role as well (e.g., Širec & Močnik, 2012). Basic assumptions and values become part of the firm's culture only when they are adopted by all stakeholders, especially owners, managers, and employees.

However, the results of our research should be interpreted within the context of the study's limitations. First, the results of our research are based on self-assessments, which were the only possible alternative and unfortunately could not be questioned or tested by outsiders' evaluation. The type and strength of culture therefore express the view of the members of the top/senior management (and often owners), who were the respondents.

However, based on the review of research studies on organisational culture, Ralston et al. (2006) concluded that the need for multiple respondents within the competing values framework (CVF) instrument, while preferable, might not be critical. Yet given the correlational design, a common methods variance explanation for our results cannot be totally dismissed. Illusory correlations related to consistency motifs may serve as the basis of job schema or implicit theories held by raters and, consequently, affect attention to, and encoding of, rater behaviours as well as later recall. Gibson and Birkinshaw (2004) also emphasised the important role that senior executives play in fostering ambidexterity, primarily by encouraging and nurturing adaptability. According to Gibson and Birkinshaw (2004), contextual ambidexterity is at least in part shaped through leaders' behaviour. In particular, SMEs have to rely even more on the ability of their top management team to attain ambidexterity, particularly on their behavioural integration (Lubatkin et al., 2006).

Second, the influence of national cultures on firms' propensity toward becoming dynamic could be one limitation of the generalisation of the research results, especially as smaller firms without foreign direct investments are considered to be more embedded in national cultures than large multinational organisations (van Everdingen & Waarts, 2003). Wang and Rafiq (2012, p. 10) called attention to the question as to 'why and to what extent firms

in different nations demonstrate different propensity towards exploration and exploitation,' for which the recent research still does not provide satisfactory answer. On one hand, the research of van Everdingen and Waarts (2003) shows that national culture influences the adoption of innovations; even within Europe, large cultural differences exist that substantially affect the adoption of innovations. On the other hand, Tellis et al. (2009) suggested that it is a firm's culture, rather than a national culture, that influences a firm's radical innovation. Similar results are evident in the research carried out by Wang and Rafiq (2012) – namely, the authors found that it is the business unit heterogeneity, such as ambidextrous culture and R&D strength, and not the differences in national cultures that plays a major role in contextual ambidexterity and consequently new product innovation. In regard to the stated research cognitions and generalisation of our research results, we can conclude that our research findings might have at least implications for organisations in environments with national cultures of a similar make-up.

Third, we did not study the link among dynamic orientation of the enterprise, the type and strength of culture, and the enterprise's subsequent performance as we lacked sound theoretical and empirical support (e.g., Lubatkin et al., 2006; Raisch & Birkinshaw, 2008). Therefore, we opted for the view of some authors (e.g., Floyd & Lane, 2000; Lubatkin et al., 2006) who found that enterprises must exploit existing competences and explore new ones in order to maintain adaptiveness and decrease their vulnerability to external selection and reduce survival risk. Those firms that are capable of simultaneously pursuing exploitation and exploration are more likely to achieve superior performance than firms that emphasise one at the expense of the other (e.g., Tushman & O'Reilly, 1996).

Our research indicates that the clan culture characteristics can be observed to a greater extent as the characteristics of other culture types in half of the observed enterprises and similar results were found by Duh et al. (2010) (see also Drakopoulou, Anderson, & Jack, 2013), where the research results demonstrated that the clan culture is the prevailing type of culture in family businesses. Therefore, the future research should observe if and how the level of enterprises' dynamics is influenced by the presence of family in the enterprise's ownership and management. This is in our opinion a neglected topic in the research on dynamic capabilities, ambidexterity, and dynamic enterprises, even though the results of many research studies (e.g., Mandl, 2008) indicate that family enterprises are an important part of the economies of many countries, thereby contributing to the wealth of many national economies. Our research also demonstrated that, in more than half of the cases studied, a strong clan culture is present. Therefore, future research studies should also address the question of the association between certain culture types and strength of culture.

Future research should also be directed toward the examination of the correlations among the level of enterprises' dynamics, the type and strength of culture, and enterprises' subsequent performance. However, enterprises' performance should not be measured in financial (i.e., quantitative) terms only, but also in terms of stakeholders' well-being. The research should address how to foster enterprises' dynamics in an ethical and credible way, taking into consideration the interest of all stakeholders, which means giving the priority to the 'stakeholder value perspective' instead of the 'shareholder value perspective'. Exploration and innovation abilities are the focus of recent research on enterprises' dynamics. However, the 2008 global economic and social crisis occurred in the most developed and innovative countries, which emphasise especially technological innovations (Ženko & Mulej, 2011).

The recent crisis therefore shows that innovations should cover needs, habits, values/culture/ethics/norms, governance and management processes, organisations, methods, and business programmes as well (Duh & Štrukelj, 2011; Mulej, 2010; Ženko & Mulej, 2011). This group of innovations is neglected in Teece's (1997, 2007) dynamic capabilities approach as well as in Pümpin and Prange's (1995) concept of a dynamic enterprise. The recent crisis, which is not only a global economic but also or especially a global strategic ethical-moral crisis (Hauc, Vrečko, & Barilović, 2011), shows that, not only cultural dimensions of enterprises' dynamics have to be studied (as in our contribution), but also ethical dimensions of enterprises' dynamics and subsequent performance are of great importance (e.g., the presence and influence of ethical core values, ethical climate, and formal and informal measures of business ethics implementation) (e.g., Belak, 2009; Belak, Duh, & Milfelner, 2012; Belak & Milfelner, 2011, 2012; Belak & Mulej, 2009; Belak & Pevc Rozman, 2012; Duh et al., 2010; Milfelner & Belak, 2012).

We limit our research to SMEs due to the fact that the majority of such enterprises do not establish structurally and culturally separate units for the implementation of exploration and exploitation processes; we can therefore eliminate the impact of partitional ambidexterity on the culture type present in the observed enterprises. However, we believe that future research should also address the influence of enterprises' size and age on enterprises' dynamics.

Various authors (e.g., Bierly & Daly, 2007; Oney-Yazici, Giritli, Topcu-Oraz, & Acar, 2007) emphasise firm size as an important source of variation in organisational behaviour and that size induces inertia that reduces the firm's flexibility and ability to handle uncertainties (for references, see Majmudar, 2000). In addition, the influence of a firm's age should be included in future studies in relation to culture and an enterprise's dynamics. For example, the adhocracy culture is generally where new and small firms start out (Ralston et al., 2006). Younger firms are more likely to experiment with radical new technologies and introduce more radical innovations, lack established technological rigidities, be more flexible, and be eager to learn from others. On the other hand, older firms might develop more rigid, bureaucratic structures and very often develop a 'competency trap' that prevents them from exploring new technologies (for references, see Bierly & Daly, 2007).

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