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The integrated resource-based and transaction cost approach to the growth process of firms

1. Introduction

Company growth¹, with regard to increasing its scope and size, is at the core of entrepreneurship, strategic management and organization studies, due to the importance and challenging nature of this research problem. Both researchers and policy makers emphasize that the small fraction of high-growth firms contributes disproportionately to the economy by increasing employment, value added and innovation, while the remaining population of firms expands marginally or not at all (Acs *et al.*, 2008; Coad, 2009; Stam *et al.*, 2006; Storey, 1994). Considering the small fraction of high-growers, expansion is rare (Coad, 2009, p. 6). Moreover, it demonstrates a considerable heterogeneity, with a large variance of determinants and pathways unexplained in the extant research (Achtenhagen *et al.*, 2010; Shepherd and Wiklund, 2009).

Contemporary research on entrepreneurial growth has been directed primarily at the identification of features and factors specific to fast-growing firms, so called “gazelles”, in order to treat these variables as determinants and predictors of expansion (McKelvie and Wiklund, 2010; Dobbs and Hamilton, 2007). Despite considerable achievements in this area, the meaning and importance of some factors impacting growth are still ambiguous (Achtenhagen *et al.*, 2010; Shepherd and Wiklund, 2009). This is often attributed to static methodological approaches, while expansion is a dynamic process with changing determinants (Dobbs and Hamilton, 2007; Wright and Stigliani, 2013). This process remains, however, a largely unexplored and emerging field of investigation (Davidsson *et al.*, 2006; Leitch *et al.*, 2010; McKelvie and Wiklund, 2010; Stam, 2010; Hansen and Hamilton 2011;

¹ We use the terms ‘growth’ or ‘expansion’ as synonymous with ‘high growth’, often treated as at least doubling firm size by employment or/and sales within a relatively short period of time, such as four to five years (Moreno, Casillas, 2007).

Wright and Stigliani, 2013, Koryak *et al.*, 2015). Moreover, the scarcity of research on the process of growth is associated with a limited theoretical background to explain this phenomenon (Dobbs and Hamilton, 2007; McKelvie and Wiklund, 2010).

The aim of the paper is to discuss the process of entrepreneurial growth from the perspective of the resource-based view (RBV) of the firm and transaction cost theory (TCT) and to formulate propositions regarding the entrepreneurs' decisional rules and structural elements in this process. By implementing this aim we address some gaps and unresolved problems in the extant research on the expansion of firms.

First, the process of accomplishing growth requires exploring why and how expansion is pursued (Garnsey *et al.*, 2006; Dobbs and Hamilton, 2007; McKelvie and Wiklund, 2010; Wright and Stigliani, 2013). This paper focuses on the way growth is realized, discussing the structural elements of this process, such as motives, rationale, mechanisms and modes. In doing so, we take an individualistic perspective of the entrepreneur's decisional rules and perceptions, instead of growth determinants stemming from the characteristics of the company, its environment, and demographic features of the firm's owner that have dominated the extant studies (Storey, 1994; Barringer and Neubaum, 2005; Gilbert *et al.*, 2006; Dobbs and Hamilton, 2007). We broaden the emerging stream of research on the growth process by formulating propositions as to the entrepreneurial choices in this process, based on the review of both theoretical studies and findings from empirical research in the fields of entrepreneurial expansion as well as strategic management and organization science literature on company scope and size.

Second, the need to open the research on entrepreneurial growth to varied theoretical perspectives has been recently suggested (Dobbs and Hamilton, 2007; McKelvie and Wiklund, 2010), in order to better capture heterogeneity of mechanisms, modes and measures

of expansion. The major theoretical perspective on firm growth is Penrose's work (1959), which has been further developed into the resource-based view of the firm. Currently, the RBV is one of the leading approaches in the firm's boundary (scope and size) research encompassing the firm's expansion (Tsang, 2000; Pitelis and Teece, 2009; Foss and Foss, 2008). In the boundary research, the RBV approach, putting stress on value and capability development, is confronted, but also integrated with transaction cost theory that focuses on uncertainty and the costs of economic exchange (Argyres and Zenger, 2012; Leiblein and Miller, 2003; Silverman, 1999). Such an approach is justified by the empirical tests supporting validity of the RBV and of TCT (Combs *et al.*, 2011), as well as necessity of applying both theories to avoid misleading results (Leiblein, 2003) These integrative efforts are specifically evident in the strategic management and organization science literature.

Extant entrepreneurship studies on growth factors, i.e., driving forces of expansion, were naturally oriented toward the RBV perspective of increasing value and competitive advantage based on superior capabilities (Storey, 1994; Wiklund and Shepherd, 2003; Barringer and Neubaum, 2005; Macpherson and Holt, 2007). However, running a growing business requires a more comprehensive perspective. It involves not only positive stimuli of capability-driven value creation, but also transaction costs and uncertainty affecting entrepreneurial opportunity recognition (Foss and Foss, 2008), rent creation and appropriation (Alvarez, 2007), as well as innovation (Michael, 2007). In the entrepreneurship research, we observe successful but few attempts to apply the assumptions of the RBV (Davidsson *et al.*, 2009; Garnsey *et al.*, 2010), of TCT (Chandler, McKelvie, and Davidsson, 2010) or the RBV and TCT variables (Verwaal *et al.*, 2010), to explain performance, measures and governance modes of entrepreneurial growth. These initial findings point to the need to integrate the transaction cost and capability considerations when studying determinants of expansion (Chandler *et al.*, 2010; Verwaal *et al.*, 2010), however, none of them investigated the process of expansion. Therefore, we

advance the understanding of the growth process by proposing an integrative TCT-RBV framework. This framework can serve future empirical studies on firm growth as a deductive, theory-driven approach. At the introductory level of the growth process studies, this approach would provide a recognized and coherent basis for methods of empirical research, thus helping to limit the ambiguity of interpretations that might stem from inductive, exclusively empirical theory development.

Third, current advances in the area of integrating the RBV and TCT to explain scope and size issues do not address directly the phenomenon of high growth. In strategic management and organization science literature, these integrative studies relate predominantly to the specific strategies of expansion, such as vertical integration, diversification, and market penetration and development, or hybrids, such as franchising, joint ventures, licensing, and alliances (Leiblein and Miller, 2003; Mayer and Salomon, 2006; Safizadeh, Field and Ritzman, 2008; Ray, Xue, and Barney, 2013). We broaden these integrative studies on the firm's scope and size by the inclusion of a high growth context, based on confronting the boundary literature with entrepreneurship studies on expansion.

Considering the above research gaps and the way they are addressed in this research, the present paper offers three contributions relevant to understanding the firm's growth. *It provides the input into the developing stream of research on growth process by formulating propositions as to the entrepreneurial decisional rules and choices in this process. Furthermore, it offers the integrated RBV-TCT approach as a theoretical background for studying the process of company growth. Finally, the paper broadens the integrative RBV-TCT studies by the inclusion of the specific context of entrepreneurial growth process.*

The paper's argumentation draws upon three fields of academic research, namely entrepreneurship literature on firm growth as well as strategic management and organization

science literature on company scope and size. By taking such a broader perspective, this study supports the accumulation of knowledge on company expansion in these related fields. As a result, three levels of entrepreneurial decisional rules in the process of growth were identified. The first level includes main decisional criteria. The second level approaches the structural elements of growth process, such as its motives, rationale, mechanism and modes. The third level assumes evolutionary approach to decision making, namely, feedback relationships among transaction costs, governance, and capabilities to create value from growth.

After the introduction, the methodology of the article is presented in the second section. In order to integrate the RBV-TCT propositions relevant to the growth process, a systematic methodological approach of theory pruning (reducing) was adopted (Leavitt *et al.*, 2010; Shareef, 2007; Davis, 2006). The methodology involved a two-step procedure implemented in the following sections. The third section discusses the comparability of the two theories, i.e., confronting them according to a set of criteria, to assess whether they represent distinctive and alternative approaches to firm growth. Upon establishing the comparability of the RBV and TCT, in the fourth section, the compatibility of these approaches toward growth process was assessed, based on a systematic review of theoretical and empirical literature that explicitly integrates the RBV and TCT in explaining firm boundary decisions, including entrepreneurial growth. This approach is novel in that extant reviews were focused on only one of these perspectives. The compatibility of the RBV and TCT, i.e., their capacity to jointly explain growth phenomenon, was reflected in five propositions that formed the foundations of an integrative theoretical framework. The discussion and conclusions form the fifth section.

2. Methodology of integrating the RBV and TCT to explain growth process

To explain the process of entrepreneurial growth by integrating the RBV and TCT, this paper applies a procedure of theory pruning (Leavitt *et al.*, 2010; Shareef, 2007; Davis, 2006). Theory pruning is a methodology directed at reducing the extant stock of theories by confronting alternative approaches to reject one of them or to combine them. The research methodology comprises two stages as described below.

1. Establishing comparability of the RBV and TCT about firm growth and confronting their assumptions

The first stage of analysis needs to acknowledge differences between these theories.

Consequently, the assumptions of the RBV and TCT about company growth process will be compared according to a set of criteria that are relevant for this phenomenon (Leavitt *et al.*, 2010).

The discussion is guided by the following questions:

What are structural elements of growth process to be used as a set of criteria to compare the RBV and TCT assumptions in this area?

What are the RBV and TCT assumptions on growth process, according to the criteria established?

Do these assumptions represent alternative views on the process of company growth?

2. Assessing compatibility of the two approaches towards company expansion and, eventually, integrating them

The second stage attempts to assess the potential compatibility of the two theories, which results in formulating propositions as to their joint explanatory power relative to the phenomenon under study. Both TCT and the RBV are established theories for which explanatory power was supported in the empirical research about firm boundaries, and in some pioneer entrepreneurship research. At the same time, they represent alternative views, which suggest that each of them may hold in different contexts and under different conditions

(Combs *et al.*, 2011). Therefore, it is instrumental to differentiate adequate moderators and/or mediators that may affect which theory holds when and/or how they can complement each other. This will be achieved by synthesizing the empirical research in company boundaries that links both theoretical approaches, and through discussing these findings in the context of the extant research on entrepreneurial growth. At this stage of analysis, the major research questions are:

What is the explanatory power of the RBV and TCT relative to structural elements of growth process?

What are moderators and/or mediators of the RBV and of the TCT influence on the process of firm growth?

In order to respond to these questions, a novel approach to reviewing the literature was adopted. To-date meta-analyses and narrative reviews of the literature testing the RBV and TCT were focused on one of these theories to explain the empirical and theoretical support for it. This approach is unique in that it focuses on the review of studies that explicitly confront and integrate the both theories to explain firms' boundary decisions and performance. The systematic review was held according to the procedure earlier adopted by David and Han (2004) to assess the validity of TCT, and then replicated by Newbert (2007) to synthesize the empirical support for the RBV. 1. The search was done only for published journal articles. 2. The search was primarily conducted in the ABI/INFORM Complete Database, with the use of the key words 'transaction cost' AND 'resource-based' OR 'capabilit*ies' to appear in the abstracts or titles of the articles. 3. The restriction was made as to the type of the source, namely, peer-reviewed articles in academic journals in the English language, published after 1990. This operation produced 433 results. 4. The next phase used search criteria reflecting growth as well as firm scope and size considerations, covering both hierarchal (vertical integration, diversification), and hybrid modes of expansion (outsourcing, alliance, joint

venture, licensing, franchising). Namely, the additional key words included: ‘growth’ OR ‘expansion/expand*ing’, ‘vertical integrat*ion’ OR ‘diversif*ication’, ‘boundar*y’ OR ‘scope’, ‘sale’ OR ‘employ*ment’ ‘outsourc*ing’, ‘alliance’ OR ‘joint ventur*e’, ‘licens*ing’ OR ‘licenc*ing’, and ‘franchis*ing’. 5. The remaining collection of articles was then reduced by manual screening of the abstracts to include only those studies that explicitly declared theoretical discussion or empirical testing of both theories to explain boundary decisions. These studies investigated hierarchical and hybrid expansion resulting in changes of firms’ scope and size. They dealt with growth issues, however they were not held in the context of fast-growth as achieved by ‘gazelles’, or at least they did not indicate this context. 6. This was one of the reasons for the additional manual search in a number of scientific journals that focus on the enterprise, new ventures and small business themes, and which treat the company size and growth as one of the key issues, namely *Entrepreneurship Theory and Practice*, *Entrepreneurship and Regional Development*, *International Small Business Journal*, *Journal of Business Venturing*, *Journal of Small Business Management*, *Small Business Economics*, and *Strategic Entrepreneurship Journal*. At the early stage of generalizing on compatibility of the RBV and TCT relative to company growth process, the additional manual search demonstrated important advantages, such as avoiding inadequacies in indexing or selective coverage of databases (Hoon, 2013). Based on this investigation, the fast growth-oriented studies exploring the individual impact of Penrosian (Garmsay *et al.*, 2006) and the RBV perspectives (Davidsson *et al.*, 2009), and testing TCT assumptions with the implications to enrich this analysis with the capability perspective (Chandler *et al.*, 2009) were found. Moreover, the study by Verwaal *et al.* (2010) integrated the RBV and TCT to explain alliance formation by SMEs, which can be considered a hybrid form of expansion. 7. Further, substantive and empirical relevance was ensured by reading all the remaining articles, with a focus on the tenets of the theories applied and the results achieved. The final sample of 52

papers included 23 theoretical studies and 29 empirical articles. This sample of empirical studies is less than a half the number of studies tested by David and Han (2004) and slightly above half the number of papers reviewed by Newbert (2007). Such a result may be evidence of the early stage of the empirical research that integrates both perspectives.

3. Establishing comparability of the RBV and TCT relative to firm growth and confronting their assumptions

What are structural elements of growth process to be used as a set of criteria to compare the RBV and TCT assumptions in this area?

Research in growth process is the most recent and developing area of growth studies (Davidsson *et al.*, 2006; Garnsay *et al.*, 2006; Leitch *et al.*, 2010; McKelvie and Wiklund, 2010; Stam, 2010; Hansen and Hamilton, 2011; Wright and Stigliani, 2013). Its aim is to explain *why and how growth is implemented* and to identify entrepreneur's decisional rules within a timespan of intense size increases. The entrepreneurial cognition and perceptions as to 'why' and 'how' problems when expansion is being realized become a focus of attention and a major point of reference (Wiklund and Shepherd, 2003; Wiklund *et al.*, 2003). These general questions can be made more specific with the use of some structural (constituent) elements of this process, such as motives and economic rationale for "why" to grow, and mechanisms and modes for "how" to grow. The motives refer to behavioral assumptions on the attitudes of entrepreneurs and other economic agents in making decisions (Wright and Stigliani, 2013). The growth rationale consists of economic reasons and goals for enlarging company size. The growth modes denote different governance structures of implementing growth in terms of internal (organic), external (acquisitive) or hybrid options adopted (McKelvie and Wiklund, 2010). The mechanisms involve interdependencies among factors

(cause-effect relationships) that lead to the choice of a specific governance mode. The nature of these structural components is dependent on entrepreneurial cognition and perceptions, and consequently, specific growth decisions emerge from these individual perceptions (Garnsey *et al.*, 2006; Wright and Stigliani, 2013).

We intend to explain these structural components by using the integrated theoretical framework that applies the RBV and TCE as major perspectives in the organization science and strategic management literature on firm scope and size (Williamson, 1999; Tsang, 2000; Argyres and Zenger, 2012). These two theoretical approaches have been increasingly adopted in the entrepreneurship literature as well, to highlight opportunity recognition (Foss and Foss, 2008), rent creation and appropriation (Alvarez, 2007), innovation (Michael, 2007) and growth issues (Davidsson *et al.*, 2009; Garnsey *et al.*, 2010; Chandler *et al.*, 2010; Verwaal *et al.*, 2010). The research evidence to-date calls for accumulating knowledge into an approach that would combine the RBV and TCE. This accumulation and integration is justified by considerable support for both theories in the empirical research on firm boundaries (Combs *et al.*, 2011)² and in entrepreneurship studies (Davidsson *et al.*, 2009; Garnsey *et al.*, 2010; Chandler *et al.*, 2010; Verwaal *et al.*, 2010). This evidence suggests that the RBV and TCE may be complementary and integrated with the adoption of adequate mediators and moderators and in specific contexts of internal capability and external contracting conditions (Leavitt *et al.*, 2010; Combs *et al.*, 2011). We observed such an integrative development within the strategic management literature on firm boundaries (Williamson, 1999; Leiblein 2003; Argyres & Zenger, 2012). This research direction is also suggested by the evidence from the exploratory entrepreneurship literature adopting TCE (Chandler *et al.*, 2010) or TCE and the RBV (Verwaal *et al.*, 2010) that points to the validity of variables from both theories.

² The empirical support for the RBV was analyzed by Combs *et al.* (2011), Newbert (2007), Arend (2006), Arend and Levesque (2010). The validity of TCT was assessed by Combs *et al.* (2011), Lafontaine and Slade (2007), David and Han (2004), Carter and Hodgson (2006), Macher and Richman (2008), Rindfleisch *et al.* (2010), among others.

What are the RBV and TCT assumptions about the growth process according to the criteria established?

The resource-based view that originated from Penrose's work (1959), treats the firm as a bundle of capabilities (resources, competences and activities) intended to provide value and Ricardian rent (Amit and Schoemaker, 1993; Barney, 1991; Hamel and Prahalad, 1990; Kogut and Zander, 1992; Peteraf, 1993, Wernerfelt, 1984). The RBV assumes that growth depends on the fit between company resources and market opportunities and chances (Penrose, 1959; Peteraf, 1993; Wernerfelt, 1984).

The rationale for growth is economies from indivisible surplus resources as well as value creation from new combinations of the existing resources (Penrose, 1959). Resources or capabilities, as the basic RBV notions, often used interchangeably (Gautam *et al.*, 2004), are differentiated among the companies, which results in their heterogeneity and varying competitive positions. The latter one is conditioned by the resources that are rare, valuable, inimitable, immobile and non-substitutable (Barney, 1991). These resources are considered firm-specific, i.e. interdepend and related to the core competence (Hamel and Prahalad, 1990). According to Penrose (1959), growth is a dynamic and cumulative process of organizational learning, which results in the increases of firm size. In this process, absorptive capacity (Cohen and Levinthal, 1990) and dynamic capabilities (Teece *et al.*, 1997; Teece 2007) are critical not only to the company enlargement, but also to its innovativeness in the entrepreneurial process (Un and Montoro-Sanchez, 2010).

The major mechanism of growth is exploitation, i.e. novel uses of the existing resource base, leading to an organic (internal) mode of growth. The company pursues resource exploitation by developing these products and services that are consistent with its core competence (Hamel and Prahalad, 1990), which results in related diversification. Underutilization of

indivisibilities stimulates growth up to the limits that arise from entrepreneurial and managerial competence. This is because the manager-entrepreneur makes choices in the conditions of bounded rationality that leads to path-dependent exploitation of the current stock of knowledge into adjacent activities (Penrose, 1959).

Bounded rationality in the RBV is independent of the assumption of opportunism of economic agents. The resource-based view rather posits the *motives* of trust and mutuality in the relationships within the company and with external partners (Barney, 1991; Tsang, 2000). The limits to organic growth, as set up by the extant routines, practices and path-dependent knowledge, can be overcome by *another mechanism of growth* - exploration, i.e. launching the areas of activity, which are not related to the existing core competence (unrelated diversification) (Penrose, 1959; Sirén *et al.*, 2012; Gancarczyk, 2015). Exploration is often achieved through the acquisitive mode of growth (acquisitions and mergers) as a mode alternative to the organic one.

As pointed out, in the Penrosian theory, two *modes of growth* are discussed, namely the expansion of hierarchy by organic and acquisitive modes, and the trade-off between them is conditioned by the existing core competence. Further development of the RBV highlights the rationale and benefits of hybrid modes; still it does not provide the method or procedure of selecting between market exchange or hierarchy and hybrid modes (Argyres and Zenger, 2012). The RBV underlines value creation as a rationale for firm existence and growth (Gautam *et al.*, 2004; Nandialath *et al.*, 2014; Newbert, 2007), but it undervalues cost side of these phenomena (Williamson, 1999; Tsang, 2000, Arend, 2006).

Transaction cost theory treats the firm as a governance structure aimed at economizing on transaction costs (Coase, 1937). TCT holds that growth is an alternative to market

transactions when they bring higher costs than implementing a specific activity within the organization (Williamson, 1991, 1998, 2002, 2005).

In TCT, the *rationale* for expanding the company is excessive costs of market transactions relative to implementing these transactions within the company (Williamson, 1999). The central concept of TCT is transaction cost, i.e., the comparative cost of implementing transactions under alternative governance structures, including market, organization and hybrids (Williamson, 1989, p. 142). Following R. Coase (1937), O. Williamson (1975) acknowledges both the costs of exchange in the market and in the organization. However, he introduces another type of governance structure, namely hybrid modes, that combine attributes of market (spot, price-based) transactions and organization (administrative hierarchy), being long-term exchange relationships, either formal or informal.

Transaction costs are determined by the attributes of the transaction and the environment of exchange. The attributes of the transaction include asset specificity (idiosyncratic investments in assets specific to the transaction that lose productive value when employed in another valuable way), complexity (specific terms and requirements to be included when drafting a contract) and frequency of exchange (Williamson, 1991). Uncertainty covers opportunism as behavioral uncertainty (self-interest seeking with guile) and unpredictability of the environment (Williamson, 1975). In the case of highly specific assets, complexity and frequency of transactions with a particular partner increase. Moreover, when the investments in specific assets are uneven among the parties, the threat of opportunism and quasi-rent seeking of the less engaged entity increases (Klein *et al.*, 1978). High level of asset specificity, complexity, frequency and opportunism lead to a decision to enlarge company size.

Managerial choices made in the conditions of bounded rationality and information asymmetry affect the contracts which are unavoidably incomplete and exposed to opportunism, assumed to reflect *motives* of economic agents.

The *mechanism of growth* is experimenting in aligning transactions, which differ in their attributes, with governance structures, which differ in their costs and benefits (Williamson, 1991, 2005). Consequently, the firm enlarges when comparative transaction costs associated with implementing a specific transaction, internally or in hybrid structures, are lower than the costs of implementing it in the market. The TCT perspective on growth is micro-analytic, situational and emergent – the expansion covers experimenting with governance structures to align them with the attributes of transactions. Such an approach implies changes and some dynamics, but these are not analyzed in a historical and learning context (Williamson, 1999), causing the criticism of TCT as a static approach (Hodgson, 1998).

Moreover, TCT is criticized due to its excessive emphasis on costs as a rationale for company existence and growth, with a lack of consideration for value creation as a justification for these phenomena (Tsang, 2000). It still provides important insights about growth modes in terms of hierarchy expansion and hybrid expansion, the latter specifically relevant in the contemporary economy (Larson, 1992; Coad, 2009; Magala, 2010; McKelvie and Wiklund, 2010). Due to technological advancements, scope, scale and experience economies decrease, and different modes of expansion than organic or acquisitive growth develop. These are hybrid forms such as joint ventures, franchising and licensing, through which companies increase employment, sales and assets value (McKelvie and Wiklund, 2010). On the other hand, TCT does not differentiate between organic or acquisitive growth in hierarchy expansion, and consequently, it does not provide a method of choice between the two. The latter shortcoming is addressed by the RBV.

Do the assumptions of the RBV and TCT represent alternative views on the process of company growth?

Upon the above analysis, it can be stated that the RBV and TCT demonstrate comparability, i.e. they present alternative assumptions about structural elements of growth process (Table 1).

Insert Table 1 here.

These approaches can also be subsumed as differing decision-making perspectives. TCT represents a structural perspective, based on the comparative analysis of governance modes, where alternative governance structures and the criteria of their selection form a decisional context. This approach is useful for normative reasoning and problem solving. The RBV demonstrates evolutionary perspective, involving path dependence and learning, in which history forms a decisional context. This approach demonstrates descriptive and explanatory value, i.e. it is useful for understanding processes and phenomena.

The acknowledgment of the comparability of the theories enables further assessment of their potential compatibility in explaining growth process.

4. Assessing compatibility of the RBV and TCT towards company expansion and integrating them

What is the explanatory power of the RBV and TCT with regard to the structural elements of the growth process? What are the moderators and/or mediators of the RBV and the TCT influence on the firm's growth process?

Our systematic search, whose methodology was described in the second section, aimed at synthesizing the studies purposefully confronting the RBV and TCT in order to explain the decisions related to company boundaries (scope and size), such as vertical

integration and outsourcing, diversification, hybrid forms such as alliances, and to firm performance, in terms of sales and employment, being most widely used measures of growth. Although referring to growth issues, these studies were not held in the specific context of high-growth firms. To determine the entrepreneurs' decisional rules and structural elements of the growth process, these findings were synthesized in the context of the entrepreneurship literature on expansion. *The analysis of the articles was not directed at assessing the theoretical or empirical support for either of the two theories to identify their individual validity. The investigation aimed to evaluate their potential compatibility and the possibility of integration into one theoretical framework that would explain a firm's growth process.*

Due to the limited number of empirical studies (29 papers), a meta-analytical method to processing their results was not adopted. Instead, a stylized approach was applied, based on combining the patterns of integrating the RBV and TCT in 23 theoretical papers with the patterns and results of testing these theories in 29 empirical papers.

4.1. The RBV and TCT constructs as the major determinants of decision-making in the growth process

The studies adopting the RBV and TCT jointly search for a comprehensive framework that would respond to the requirements of the decision-making process about the firm's scope and size (Conner, Prahalad, 1996; Kulkarni and Ramamoorthy, 2005; McIvor, 2009; Holcomb and Hitt, 2007). *In the theoretical studies on firm boundaries*, both perspectives are treated as differing but complementary or even undergoing some convergence of concepts and notions. This complementarity can be perceived as either equal importance of their assumptions or superiority of one approach that is supplemented by the other.

Combining the main variables of the two theories into one research scheme is postulated to avoid improper choices, since decision-makers must simultaneously consider both transaction costs and creating value (Kulkarni and Ramamoorthy, 2005; Holcomb and Hitt, 2007). The RBV core concepts such as *value creation and capabilities* are discussed jointly with the main conceptions of TCT such as *transaction costs and uncertainty* (Conner and Prahalad, 1996; Tsang, 2000; Holcomb and Hitt, 2007). This approach resulted in a number of decision matrices that utilize both kinds of variables in order to identify modes of employment (Lepak and Snell, 1999; Kulkarni and Ramamoorthy, 2005) or governance modes (McIvor, 2009; Holcomb and Hitt, 2007). One can observe some convergence of notions that additionally prove the inseparability of the two theories. This can be exemplified in recognizing the importance of transaction costs, however, with tacit knowledge instead of opportunism as their determinant (Conner and Prahalad, 1996; Madhok, 1997; Mahoney, 2001). Transactional value is promoted as the major decisional criterion alternative to transaction costs (Zajac and Olsen, 1993). Another example is governance choice, when it is proposed that specific modes are aligned with firm capabilities rather than with transaction characteristics as originally stated in TCT (Kulkarni and Ramamoorthy, 2005; Meyer, Wright, and Pruthi, 2009).

Besides joining or even converging the constructs of the RBV and TCT, the studies emphasize differing inputs these theories provide into decision-making. Namely, they are considered as valid for different types of decisions. Value and capabilities explain strategic choices that involve innovation and market creation in the long-term perspective (Conner and Prahalad, 1996; Pitelis and Teece, 2009). The RBV provides foundations for innovative and creative undertakings and reflects the nature of the firm as a means to develop and protect value (Conner and Prahalad, 1996). In such decisional contexts they dominate the TCT assumptions (Pitelis and Pseiridis, 1999; Pitelis and Teece, 2009; Mahoney, 2001). On the

other hand, considering transaction costs and associated uncertainty is necessary in the process of running the business based on existing alternatives in terms of accessible resources and markets (Mahoney, 2001; Pitelis and Teece, 2009). Therefore, the TCT assumptions are conducive to the existence of the firm and in this context they govern the choices of decision-makers (Mahoney, 2001). Moreover, developing and protecting resources and value involves managing transaction costs in conditions of uncertainty (Argyres and Zenger, 2012; Foss and Foss, 2008). In growing their businesses, entrepreneurs undertake both strategic decisions about innovations and market creation, as well as about the on-going running of the business, i.e. making choices based on the existing alternatives (Foss and Foss, 2008; Foss and Foss, 2005; Pitelis and Teece, 2009; Pitelis and Pseiridis, 1999). Therefore, it is compelling to concurrently consider the major constructs of the RBV and TCT when pursuing the growth of entrepreneurial ventures.

The empirical studies on firm boundaries follow the path of combining the key variables of the RBV and TCT. The majority of studies acknowledge the validity of both theories' variables in the decisions about scope and size (Silvermann, 1999; Leiblein and Miller, 2003; Meyer and Salomon, 2006; Ray *et al.*, 2013; Safizadeh *et al.*, 2008). Similarly to the earlier discussed theoretical studies, the RBV and TCT are also presented as influencing different types of governance decisions, such as strategic and operational outsourcing (Ordanini and Silvestri, 2008). However, some research points to one of the approaches as more powerful, subordinating the other theory to it. Díez-Vial (2007), Poppo and Zenger (1995) as well as Brewer *et al.* (2014) find stronger support for the transaction cost explanation of company scope. At the same time, they acknowledge the influence of capabilities as an additional driver of choices, specifically important for the performance and outcomes of boundary decisions. Jacobides and Hitt (2005), Mutinelli and Piscitello (1998), and Yasuda (2005)

attribute partial validity to transaction costs in setting up company boundaries, while capabilities are the primary basis for decision-making. It needs to be noticed that even when the imbalance of explanatory power was evidenced between the theories, this did not preclude some influence of the alternative approach.

The analysis of the empirical studies points to the key RBV and TCT determinants of scope and size, i.e. *capabilities and value versus uncertainty and transaction costs* (Table 2).

Insert Table 2 here.

The main TCT determinants are transaction costs and uncertainty, the latter applied as an aggregate construct, including behavioral and environmental conditions. There are close and even equivalent connections between uncertainty and contractual hazards, covering measurement and appropriability problems. Another major explanatory variable of TCT is asset specificity, either researched individually or as a part of contractual hazards.

Opportunism, inherent in uncertainty, and transaction costs are less exploited as directly measured variables. However, they are strong reference categories in all the articles.

The main independent variables representing the RBV are capabilities and value. Capabilities encompass resources, competencies, and activities. Value, often identified with competitive advantage, hardly exists as a measured variable. Like transaction costs, it is invoked indirectly in theory and final interpretations.

There are also interdependencies or convergences among TCT and the RBV notions and variables, such as firm specificity (firm specific, complementary and interdependent, core-related assets) and transaction specificity (transaction specific assets). These constructs are often, and at least to some extent, understood as equivalent and having similar impact on boundaries, i.e. they support choices toward expanding the firm's scope and size (Poppo and Zenger, 1995; Schilling and Steensma, 2002).

In the field of *studies on entrepreneurial growth*, both capability considerations and transaction cost considerations are present, with a stronger emphasis on the RBV perspective. These approaches are not usually integrated within one study, but they are adopted in separate research studies. The majority of studies on growth reflect the RBV logic, putting emphasis on drivers and positive motivations for expansion, directed at performance and value development (Storey, 1994; Wiklund, 1999; Wiklund and Shepherd, 2003; Barringer and Neubaum, 2005; Gilbert *et al.*, 2006; Dobbs and Hamilton, 2007; Delmar and Wiklund, 2008), while impediments and limits are under-researched. However, the rarity of expansion suggests that entrepreneurs consider some obstacles and limitations in pursuing it, such as increased transaction costs associated with internal management (Chandler *et al.*, 2009) or alliance coordination (Vervaal *et al.*, 2010) and with losing the flexibility typical of market transactions (Díez-Vial, 2010). There is evidence of transaction costs significantly moderated by capability, as implied by firm size (Vervaal *et al.*, 2010; Díez-Vial, 2010), and access to resources (Chandler *et al.*, 2009). Therefore, implementing growth involves not only drivers and enablers to initiate the process but also some constraints in terms of exchange costs and uncertainty when exploiting opportunities.

The above discussion of the boundary and entrepreneurship studies suggests an integration of the main RBV and TCT constructs and treating them as the core decisional criteria about firm scope and size, including entrepreneurial expansion.

Proposition 1. *The entrepreneurial decisions in the process of firm growth are jointly explained by the assumptions of the resource-based view of the firm and transaction cost theory.*

Proposition 2. *The entrepreneurial decisions in the process of firm growth are based on the assessment of firm capabilities and value from growth relative to environmental uncertainty and transaction costs associated with growth.*

Therefore, it can be assumed that entrepreneurs pursuing growth consider both groups of alternative determinants. The assessment of capabilities relative to environmental uncertainty, and value from growth relative to transaction costs associated with expansion, forms a basis for their judgments in making decisions.

4.2. Differing explanatory power of the RBV and TCT regarding “why” and “how” to grow

The reviewed studies predominantly acknowledge the importance of core constructs from the both theories in the decision-making process regarding company expansion. However, they also suggest the differing explanatory power of the RBV and TCT as to the specific problems of size and scope. These problems, namely “why” (motives and rationale) and “how” (mechanisms and modes) to expand, act as mediators for the both approaches, explaining their relative validity depending on the issues researched. *In the theoretical studies* a division of roles between the RBV and TCT is proposed (Williamson, 1999). The RBV offers the explanation of “why” specific strategy is chosen, giving rationale of value and competitive advantage, and what motives drive the behaviors of economic agents, putting stress upon mutuality and trust or the absence of opportunism (Conner and Prahalad, 1996; Leiblein, 2003; Ireland *et al.*, 2002). TCT highlights “how” the strategy is implemented. Namely, it points to mechanisms and modes of this phenomenon by proposing the discriminating alignment hypothesis and determinants of governance choice, with a focus on asset specificity and uncertainty (Leiblein, 2003; Pitelis and Teece, 2009; Argyres and Zenger, 2012). When applying decisional rules of either of the theories, the factors of alternative theory should be taken into account as moderators. Transaction costs and uncertainty act as moderators of prospective value and competitive advantage (Conner and Prahalad, 1996; Madhok, 1997; Foss and Foss, 2005; Pitelis and Teece, 2009; Meyer *et al.*, 2009). On the other hand, capabilities moderate the influence of transaction costs on the

choice of governance, such as governance capabilities allowing to abandon the internalization and choose external contracting (Meyer and Salomon, 2006; Tseng and Chen, 2013; Ray *et al.*, 2013; Steensma and Corley, 2001; Kumar, 2010; Verwaal *et al.*, 2010). TCT's alignment hypothesis enables the choice between the hierarchy and hybrid expansion. However, in order to differentiate between organic and acquisitive growth, the RBV concept of core-related activities needs to be applied (Kim and Mahoney, 2006; Conner and Prahalad, 1996; Madhok, 1997; Foss and Foss, 2005; Pitelis and Teece, 2009; Meyer *et al.*, 2009).

The differing explanatory power of the RBV and TCT is also reflected *in the empirical studies on firm boundaries* (Table 3).

Insert Table 3 here.

According to Schilling and Steensma (2002), the resource-based theory explains why a firm develops particular resources rather than others, but transaction costs perspective better explains the governance mode undertaken for accessing the resources once they are chosen. The group of studies highlighting “why” issues, states the importance or even primacy of the RBV and emphasizes value, competitive advantage, and performance as the major rationales (Table 3). The articles that undertake the problem of “how” governance is established, acknowledge the role of TCT predictors, such as asset specificity and behavioral and environmental uncertainty, or report their better predictive capacity in this regard (Table 3). However, when dominating in the “why” or in the “how” phase of the process of shaping firm scope, each theory is also moderated by the impact of its counterpart. One can observe capabilities moderating the impact of TCT determinants and TCT factors (transaction costs and uncertainty) moderating the impact of the RBV variables (Table 3).

The entrepreneurship studies on growth can also be analyzed from the perspective of “why” and “how” issues. The RBV logic in explaining motives and rationale for growth (“why” issues) is applied in the majority of entrepreneurship studies on growth determinants,

focusing on internal characteristics of the entrepreneur, the firm, and its strategy. The outcome of this research is identification of the resource-based factors, characterizing the capabilities of the entrepreneur and the firm, that proved significant in a number of findings (Storey, 1994; Barringer and Neubaum, 2005; Gilbert *et al.*, 2006; Dobbs and Hamilton, 2007; Coad, 2007, 2009; Macpherson and Holt, 2007; Rodríguez-Gutiérrez *et al.*, 2015). Environmental conditions associated with uncertainty and transaction costs are under-researched relative to the internal characteristics of growth firms (Wiklund and Shepherd, 2003; Lensink *et al.*, 2005). It should also be noted that the entrepreneurship research on growth determinants does not mostly apply the core theoretical assumptions and variables of the RBV, but it investigates the internal characteristics of fast growing firms and their access to external resources.

The “how” issues, related to mechanisms and modes of growth, are less explored in the entrepreneurship research relative to the “why” problems (McKelvie and Wiklund, 2010; Chandler *et al.*, 2009). The cause-effect relationships leading to the choice of a specific mode and the relative efficiency of the expansion mode for entrepreneurial ventures require further investigation. The initial findings prove that the governance choices of SMEs driven by transaction costs, asset specificity and opportunism are also moderated by their access to resources (Chandler *et al.*, 2009; Verwaal *et al.*, 2010). Moreover, to-date entrepreneurship studies on governance modes focus specifically on the rationale and drivers of hybrids, such as alliances, joint ventures and different forms of networks. This proves the importance of hybrid structures for small and young entrepreneurial ventures as alternatives to organic or acquisitive growth (Watson, 2007; Rindova *et al.*, 2012; Iacobucci and Rosa, 2010).

Considering the findings from both the boundary and entrepreneurship literatures, as well as theoretical background from the third section, the propositions can be formulated that point to the relative validity of TCT and the RBV in explaining entrepreneurial decisions. The

problems “why” and “how” to expand are mediators in linking the theories, i.e. they highlight validity of these alternative approaches for different problems in the process of entrepreneurial growth.

Proposition 3. *The entrepreneurial decisions on “why” to grow are explained by the tenets of the resource-based view of the firm, with moderating effects from the transaction cost perspective. Namely, mutuality-trust relation and development of capabilities leading to value increase are the major motive and rationale for growth with moderating effect from uncertainty and transaction cost considerations.*

Proposition 4. *The entrepreneurial decisions on “how” to grow are explained by the tenets of transaction cost theory, with moderating effects from the resource-based view of the firm. Namely, the mechanism of growth is based on aligning transaction characteristics and capability characteristics with the governance mode.*

4.1. *Asset specificity and the uncertainty associated with business transactions determine the choice between hierarchy and hybrid modes of growth, with moderating effects from the firm’s capabilities.*

4.2. *In the case of the hierarchy mode of growth, the consistency or inconsistency of expansion with a firm’s core competence results in organic or acquisitive modes of growth, accordingly.*

Propositions 3 and 4 built on and extend the general framework offered by propositions 1 and 2. The RBV is more valid than TCT for shaping the motives and establishing the rationale. Mutuality and trust drive behaviors, while capability and value considerations are the primary justification for expansion, with moderating effects from behavioral and environmental uncertainty as well as transaction costs. TCT has the primary importance for establishing mechanisms and modes of growth according to the aligning logic. However, this logic is not

only based on transaction characteristics, such as asset specificity and uncertainty from opportunism and unpredictable environment, but moderated by capability characteristics.

4.1. Dynamic interaction of the RBV and TCT constructs during growth process

In the specific decisions about ‘why’ and ‘how’ to expand, we have observed differing explanatory power of the RBV and TCT. However, considering an evolutionary perspective of the firm and the industry life cycle, the boundary studies propose a dynamic interaction of the RBV and TCT constructs, with the use of the evolution concept as a mediator (Jacobides and Winter, 2005; Jacobides, 2008; Pitelis and Teece, 2009). Emphasizing long-term, learning and strategic thinking, this approach proposes a dynamic view of transaction costs, modifying their micro-analytical and situational nature. According to Jacobides and Winter (2005), the growth of the firm and industry is an evolutionary and learning process, in which firm capabilities and transaction costs interact and co-evolve. The level of transaction costs will influence the choice of governance mode, which, in turn, affects capabilities through the mechanism of knowledge governance (Madhok and Tallman, 1998; Madhok, 2002). Transaction costs are only partially exogenous to the company, as they depend on its resources, competences and deliberate actions (Piteli and Pseiridis, 1999; Zajac and Olsen, 1993). The example is governance capabilities (Dyer, 1996; Argyres and Liebeskind, 1999; Madhok, 2002), which build value in the form of relationship capital or transactional value (Madhok and Tallman, 1998; Zajac and Olsen, 1993). Further, they affect the level of transaction costs within the organization and in its external relations. This co-evolution of capabilities and transaction costs is reflected in the construct of dynamic transaction costs (Langlois, 1992; Pitelis and Pseiridis, 1999; Zajac and Olsen, 1993). Eventually, capabilities and transaction costs jointly affect firm heterogeneity, prospective value and competitive advantage (Foss and Foss, 2005).

The empirical studies on firm boundaries provide the evidence of the evolutionary and learning nature of growth process by pointing to feedback effects between capabilities and transaction costs in shaping firm scope and size. Mutinellii and Piscitello (1998) find the impact of governance on knowledge acquisition and capability development as moderated by transaction costs of acquiring information and potential opportunism of contractors. Strong capabilities lower transaction costs and enable to choose market or outsourcing instead of internalization (Mayer and Salomon, 2006; Tseng and Chen, 2013). Lower transaction costs, in turn, allow for productive capabilities to act as a determinant of governance; higher transaction costs will limit the influence of productive capabilities on governance (Jacobides and Hitt, 2005; Fabrizio, 2012). Accordingly, Brahm and Tarziján (2014) state that high transaction costs and high capabilities interact negatively in the explanation of vertical integration.

The entrepreneurship literature on growth adopts the evolutionary logics in seeing growth process as opportunity recognition, learning and innovation development in the conditions of uncertainty. However, these studies adopt either the RBV or TCT logics and do not integrate these approaches. The RBV-backed stream of research emphasizes the role of knowledge development to innovative outcome and uncertainty in pursuing them (Coad, 2009; Macpherson and Holt, 2007). At the same time, the efforts have been made to explain the relationships among uncertainty, innovation and growth with the use of the TCT considerations. These studies emphasize the role of lowering transaction costs in opportunity recognition (Foss and Foss, 2008) and in growth through innovation development (Michael, 2007). The establishment and growing the firm as a governance structure is treated as a safeguard of property rights to entrepreneurial rent creation and appropriation under conditions of uncertainty and risk (Alvarez, 2007). The explanation how capabilities, including knowledge, and transaction costs jointly affect innovation and growth in the longer-

term perspective still require further investigation, with the use of the integrated RBV-TCT approach.

The above analysis of the boundary and growth literature suggests the interaction of the RBV and TCT constructs in the process of expansion, as mediated by an evolutionary perspective.

Proposition 5. *Considering a long-term and evolutionary perspective, entrepreneurs recognize the interaction between firm capabilities and transaction costs during the process of growth.*

5.1. *Transaction costs moderated by capabilities determine the entrepreneur's choice of governance mode for growth, which further affects learning and capability development of the firm. Learning and capability development enable lowering transaction costs in opportunity recognition and pursuing growth.*

5.2. *Eventually, capabilities and transaction costs jointly affect the level of prospective value from growth.*

5. Discussion and conclusions

In the paper the process of entrepreneurial growth was discussed from the perspective of the resource-based view (RBV) of the firm and transaction cost theory (TCT) and the propositions were formulated regarding the entrepreneurs' decisional rules and structural elements in this process. Considering the challenges in the research on firm growth, as indicated in the introductory part, integrating the RBV and TCT for the purpose of explaining growth process is useful in theoretical, methodological and practical respects.

The theoretical contribution of the paper consists in *formulating propositions as to the entrepreneurial decisional rules and choices in the process of expansion and as to*

structural elements of this process. The propositions form a framework of three levels of entrepreneurs' decisional rules (Table 4).

Insert Table 4 here.

Level 1 reflects the main decisional criteria based on confronting the basic constructs of the two theories (Propositions 1 and 2). Level 2 represents a structural approach to decision-making, i.e. the process of growth was decomposed into some constituent (structural) elements, to be explained with different the RBV and TCT determinants and moderators (Propositions 3 and 4). Level 3 covers the evolutionary and long-term approach to entrepreneurial decision-making that takes into account feedback relationships among transaction costs, governance, capabilities and value from growth (Proposition 5).

These propositions are intended to broaden the emerging stream of research in growth process. To-date entrepreneurship research on growth determinants was focused on features and factors typical of high-growth firms, including characteristics of the entrepreneur, the firm, its strategy and environment (Storey, 1994; Barringer and Neubaum, 2005; Gilbert, McDougall and Audretsch, 2006; Dobbs and Hamilton, 2007; Coad, 2007, 2009; Macpherson and Holt, 2007). These were either effects of the entrepreneur's choices or they represented some uncontrolled variables that formed conditions for entrepreneurial decisions. The originality of this approach compared to extant studies is its focus on the entrepreneur's decisional rules and perceptions. This paper intends to explore how growth is achieved by entrepreneurs making judgments about motives, rationale, and mechanism leading to specific modes of expansion. Thus, it proposes to investigate a process, instead of the outcomes of some characteristics of companies that achieved growth. The focus on growth process is promoted as a way to overcome the existing ambiguity of findings on growth determinants (Shepherd and Wiklund, 2009; Achtenhagen *et al.*, 2010; Dobbs and Hamilton, 2007; Wright

and Stigliani, 2013). Namely, it can reveal the foundations of entrepreneurial decisions and actions to explain the ambiguity of determinants in the earlier studies. Capabilities of firms and the transactions costs they experience may highlight the impact of specific drivers of growth and inform the policy and management of high-growth firms (McKelvie and Wiklund, 2010; Wright and Stigliani, 2013). This paper proposes joint effects of internal capability development, uncertainty, value, and transaction cost in accomplishing expansion.

Within the extant research, the entrepreneurial perceptions were mainly explored as motivation, willingness or ambition to grow to achieve personal fulfillment and satisfaction, supported with entrepreneurial opportunity seeking and drive towards innovations (Storey, 1994; Wiklund, 1999; Wiklund and Shepherd, 2003; Delmar and Wiklund, 2008). In this paper, the scope of rationale in the entrepreneurship literature was extended by including value and capability development that lead to competitive advantage, the constructs inherent in the strategic management literature. On the other hand, the individualistic perspective of a decision-maker, typical of the entrepreneurship literature has been maintained. This individualistic approach is linked to the conviction that high growth predominantly occurs in small and young firms, where decisions are taken in a heuristic way by individual entrepreneurs, and not through hierarchies, procedures and teams, as in larger and more established organizations.

Moreover, the existing research is mainly focused on drivers of growth, i.e. its positive stimuli, which is a natural approach in post-rationalizations of firm's success. However, growth is rare, risky, idiosyncratic and its determinants and conditions prove ambiguous in the populations studied (Coad, 2009; Shepherd and Wiklund, 2009; Dobbs and Hamilton, 2007). Considering this, it can be argued that growth does not occur not only because of the lack of some factors, such as characteristics of the owner, the firm, its knowledge and strategy. There may be some negative stimuli affecting this phenomenon, such as transaction

costs and uncertainty stemming from partners' behaviors, environment and other conditions of contracting. They act as negative motivations towards growth. In this vein, expansion is a way to avoid costs of external transactions. Uncertainty and transaction costs can also act as a constraint; a barrier to increasing firm size. In this instance, growth would be perceived as losing direct entrepreneurial control that leads to the opportunism and increased costs of transacting within the firm. Acknowledging these observations opens the research on growth to less explored aspects of barriers, impediments, and failure.

Another input into the understanding of growth process is the proposed explanation of mechanisms leading to specific growth modes, including the hybrid ones. These considerations are modestly represented in the entrepreneurship literature on growth. However, it has been lately postulated that growth modes are a constituent part of the research on the process of expansion (Coad, 2009; McKelvie and Wiklund, 2010). It is also emphasized that hybrid modes are especially relevant for the contemporary expansion of both large enterprises and small firms. Our proposals directly capture the issue of growth modes and mechanisms leading to them.

The second theoretical contribution of the paper is *proposing the integrated RBV-TCT approach as a theoretical background for studying firm expansion*. The integrative framework addresses the need for a wider and more comprehensive theory of growth (Dobbs and Hamilton, 2007; McKelvie and Wiklund, 2010; Wright and Stigliani, 2013). In spite of the alternative views on the constituent parts of growth phenomenon, both TCT and the RBV received support in the empirical studies on firm boundaries (Combs *et al.*, 2011) and growth (Davidsson *et al.*, 2009; Chandler *et al.*, 2009). The empirical evidence suggests that they are complementary and calls for their integration to achieve a more consistent conceptual framework. The current research maintains the link with extant studies on growth that adopt

Penrosian and resource-based assumptions on the nature of growth. The proposed extension of this perspective by transaction costs theory draws upon the integrative achievements in strategic management and organization science, and it is also stimulated by the recent studies in entrepreneurship that utilized the transaction cost reasoning (Chandler *et al.*, 2009; Verwaal *et al.*, 2010). Therefore, the paper supports the accumulation of knowledge on firm growth in three interrelated areas of entrepreneurship, strategic management and organization science, which refer to TCT or the RBV or both of them.

As these integrative studies are more advanced in the strategic management and organization science literatures on firm boundaries, this framework may be biased towards the way of reasoning in these two fields at the cost of the entrepreneurship literature, and this observation can be considered a limitation. On the other hand, high growth belongs to a wider issue of firm boundaries (scope and size issues), as its special context. Following this reasoning, the paper proposes the logic of entrepreneurial decisions in growth process based on the integrative RBV-TCT literature on firm boundaries discussed in the context of the extant literature on firm growth. A difficulty to fully transfer the conclusions from one research field to another made our propositions rather general (concerning basic decisional criteria, structural elements of growth process and its evolutionary nature) than detailed and focusing on more concrete challenges when expanding (such as product-market choice, handling particular aspects of the firm resources, and environmental uncertainty). This general formula is, however, justified by the introductory stage of integrating the RBV and TCT in the boundary, and specifically, in the entrepreneurship studies. On the other hand, after operationalization, these general propositions can further be tested empirically in the context of high-growth to reject, verify, or extend their assumptions. The result would be refining the theory to more comprehensively and accurately reflect the specificity of high-growth process.

Consequently, *our third contribution consists in broadening the current stock of integrative RBV-TCT studies by the inclusion of the specific context of entrepreneurial growth process.*

The methodological contribution of the paper consists in 1) adopting novel methodologies for developing the integrated RBV-TCT framework, and in 2) proposing a methodology of future research on growth process with the use of deductive approach.

This integrative framework has been developed based on a systematic methodology that involved comparing and confronting the two theories, assessing their compatibility, and integrating them. In the analysis of compatibility, systematic review of theoretical and empirical studies adopting both the RBV and TCT to explain firm scope and size was performed. Our review is novel in that it focused on the studies that explicitly adopted the integrative RBV-TCT approach to firm boundaries.

The weakness of the compatibility phase of our analysis was a narrow sample of the articles that met the systematic search criteria. Only the publications directly invoking the assumptions and major variables of the two approaches to explain the boundary decisions and firm performance were selected. A vast number of the publications not included, utilized the theories only as a context for deliberations and did not exploit them in any systematic way. The small sample of empirical papers forced us to adopt a stylized approach to synthesizing the empirical findings. Another impediment to identifying more specific cause-effect relationships among variables was a variety of methodologies employed in the studies as reflected in different proxies, study designs and selective choice of the RBV and TCT factors. This limited set of empirical studies is an evidence of the early stage of the integrative RBV-TCT research.

The review of the RBV-TCT integrative studies may bring the bias of not fully recognizing the limitations of the theories adopted. It is because the authors of these studies may tend to support the joint validity of the theories and to avoid excluding one of them. In

fact, even promoting the superiority of one of the approaches over the other does not preclude some influence of the alternative constructs. In response to the possible bias, the current contribution explored and acknowledged the complexity of findings presented in the reviewed studies by introducing mediators and moderators to major variables in the propositions formulated.

The proposed methodological approach is deductive in nature, as built upon the extant theories. Such a method may be considered a limitation in the case of the emerging and thus explorative area of study on growth process. However, it can be asserted that it is also a potential advantage, considering the observed ambiguity of findings on growth that stems from differing methodologies. The deductive method suggested in the paper, draws upon two alternative theories, i.e. alternative template approach is applied (Langley 1999; Leavitt *et al.* 2010). This prevents us from sticking to only one view and opens a potential investigator to competing explanations of the phenomenon under study. The prospective benefit from deductive design of empirical research would be more consistent understanding of results and more accurate replication of methodologies based on widely recognized constructs.

As we deal with the process phenomenon, qualitative research would be appropriate to test our propositions. Deductive methodology has recently been proposed for qualitative studies in organization science (Yin, 2003; Bitektine, 2008), with the use of alternative template approach and pattern-matching between theoretical framework and the observed reality (Langley 1999; Lee 1989). Such a deductive theory testing can be adopted in qualitative studies to test the propositions by falsification test, and to identify constructs and variables for further quantitative studies.

Contribution for business practice, in turn, results from normative judgments to guide entrepreneurial decisions, in which value considerations should be viewed simultaneously with transaction cost considerations (Kulkarni & Ramamoorthy, 2005). The current research

expands the existing RBV-oriented approach by the TCT considerations to cover not only drivers of expansion, but the complexity of different problems and types of decisions in the process of growth. Based on the theoretical and empirical literature review, it has been proposed how entrepreneurial decisions are made in the process of growth. Another value might stem from future empirical research that would adopt the proposed framework. If tested in the context of high-growth and high-performance firms, the framework will bring verified normative recommendations, conducive for business practice.

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³ * Theoretical studies on firm boundaries identified upon a systematic search. ** Empirical studies on firm boundaries identified upon a systematic search.

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Table 1. The RBV and TCT as alternative approaches to the structural elements of growth process

<i>Elements of growth process</i>	<i>The resource-based view</i>	<i>Transaction cost theory</i>
Motives of economic agents	Trust and mutuality	Opportunism
Economic rationale	Value and competitive advantage	Reduction of transaction costs out of organization
Mechanisms	Exploitation of the existing capabilities and exploration of new business activities through acquisition or development of new capabilities	Discriminating alignment hypothesis – aligning characteristics of a particular transaction with governance mode in order to optimize transaction costs
Governance structures (modes)	Organic (internal), external or hybrid growth (mergers and acquisitions) dependent on the consistency with a firm's core competence	Hierarchy (internalization) or hybrid growth dependent on the level of asset specificity, transaction frequency and complexity
Decision-making perspective	Evolutionary and long-term perspective that involves both path dependence and learning; history forms a decisional context.	Structural and micro-analytical approach based on the comparative analysis of governance modes; alternative governance modes and criteria of their selection form a decisional context.

Table 2. The main RBV and TCT determinants of firm scope and size identified in the empirical studies on boundary decisions

The RBV approach		TCT approach	
Variables	Studies	Variables	Studies
Capabilities	All the studies	Transaction costs	Indirectly: all the studies; directly: Verwaal <i>et al.</i> , 2010; Jacobides and Hitt, 2005
Value (including performance and competitive advantage)	Lai and Chang, 2010; Argyres and Silverman, 2004; Kumar, 2010; Murphy <i>et al.</i> , 2012; Glaister, 2004; Brewer <i>et al.</i> , 2014; Ceccagnoli <i>et al.</i> , 2010; Lo, Frias and Ghosh, 2012; Ordanini and Silvestri, 2008; Steensma and Corley, 2001; Schilling and Steensma, 2002	Uncertainty (behavioral and environmental uncertainty, contractual hazards – appropriation and measurement problems)	Ryoo, 2012; Murphy, 2012; Majocchi <i>et al.</i> , 2013; Kumar, 2010; Forlani <i>et al.</i> , 2008; Lai and Chang, 2010; Mutinelli and Piscitello, 1998; Brahm and Tarzijan, 2014; Brewer <i>et al.</i> , 2014; Chen and Chen, 2002; Díez-Vial, 2007; Gulati, <i>et al.</i> , 2005; Leiblein and Miller, 2003; Lo <i>et al.</i> , 2012; Mayer and Salomon, 2006; Poppo and Zenger, 1995; Silverman, 1999; Steensma and Corley, 2001; Safizadeh <i>et al.</i> , 2008; Schilling and Steensma, 2002; Tseng and Chen, 2013
		Asset specificity	Chen and Chen (2002); Díez-Vial (2007); Leiblein and Miller (2003); Lo <i>et al.</i> , 2012; Mayer and Salomon (2006); Poppo and Zenger (1995); Safizadeh <i>et al.</i> , (2008; Schilling and Steensma (2002)

Table 3. The differing explanatory power of the RBV and TCT regarding ‘why’ and ‘how’ to grow in the empirical studies on firm boundaries

Findings	Empirical studies
The importance or primacy of the RBV in explaining ‘why’ to grow	Brewer <i>et al.</i> , 2014; Ceccagnoli, 2010; Gulati <i>et al.</i> , 2005; Jacobides and Hitt, 2005; Lo <i>et al.</i> , 2012; Poppo and Zenger, 1995; Silverman, 1999; Schilling and Steensma, 2002
The importance or primacy of TCT in explaining ‘how’ to grow	Brahm and Tarzijan, 2014; Brewer <i>et al.</i> , 2014; Lai and Chang 2010; Ceccagnoli and Salamon, 2006; Chen and Chen, 2002; Díez-Vial, 2007; Fabrizio, 2012; Gulati <i>et al.</i> , 2005; Jacobides and Hitt, 2005; Leiblein and Miller, 2003; Mayer and Salomon, 2006; Ordanini and Silvestri, 2008; Poppo and Zenger, 1995; Ray <i>et al.</i> , 2013; Safizadeh <i>et al.</i> , 2008; Tseng and Chen, 2013; Ray <i>et al.</i> , 2013; Schilling and Steensma, 2002; Steensma and Corley, 2001; Majocchi <i>et al.</i> , 2013
Capabilities moderating the impact of the TCT determinants	Tseng and Chen, 2013; Ray <i>et al.</i> , 2013; Steensma and Corley, 2001; Kumar, 2010; Verwaal <i>et al.</i> , 2010
TCT factors moderating the impact of the RBV determinants	Mutinelli and Piscitello, 1998; Fabrizio, 2012; Jacobides and Hitt, 2005

Table 4.
The integrated RBV-TCT framework: the research proposals
as levels of entrepreneurs' decisional rules in the process of growth

<p>Proposition 5. <i>Considering a long-term and evolutionary perspective, entrepreneurs recognize the interaction between firm capabilities and transaction costs during the process of growth.</i></p> <p>5.1. <i>Transaction costs moderated by capabilities determine the entrepreneur's choice of governance mode for growth, which further affects learning and capability development of the firm. Learning and capability development enable lowering transaction costs in opportunity recognition and pursuing growth.</i></p> <p>5.2. <i>Eventually, capabilities and transaction costs jointly affect the level of prospective value from growth.</i></p>	<p>Level 3. Evolutionary approach to decision making - how to understand feedback relationships among transaction costs, governance, and capabilities to create value from growth</p>
<p>Proposition 3. <i>The entrepreneurial decisions on 'why' to grow are explained by the tenets of the resource-based view of the firm, with moderating effects from transaction cost perspective. Namely, mutuality-trust relation and development of capabilities leading to value increase are the major motive and rationale for growth with moderating effect from uncertainty and transaction cost considerations.</i></p> <p>Proposition 4. <i>The entrepreneurial decisions on "how" to grow are explained by the tenets of transaction cost theory, with moderating effects from the resource-based view of the firm. Namely, the mechanism of growth is based on aligning transaction characteristics and capability characteristics with the governance mode.</i></p> <p>4.1. <i>Asset specificity and the uncertainty associated with business transactions determine the choice between hierarchy and hybrid modes of growth, with moderating effect from firm capabilities.</i></p> <p>4.2. <i>In the case of hierarchy mode of growth, the consistency or inconsistency of expansion with a firm's core competence results in organic or acquisitive modes of growth, accordingly.</i></p>	<p>Level 2. Structural problem-solving – how to approach the structural elements of growth process</p>
<p>Proposition 1. <i>The entrepreneurial decisions in the process of firm growth are jointly explained by the assumptions of the resource-based view of the firm and transaction cost theory.</i></p> <p>Proposition 2. <i>The entrepreneurial decisions in the process of firm growth are based on the assessment of firm capabilities and value from growth relative to environmental uncertainty and transaction costs associated with growth.</i></p>	<p>Level 1. Main decisional criteria</p>
<p>PROPOSITIONS</p>	<p>LEVELS of entrepreneurs' decisional rules</p>