A core idea to strategic management is resource management, differentiating between an inward resource perspective and an outward resource view. Historically, this was the front line in interpreting organizational resources for the formation and execution of strategy. However, this paper questions whether this dichotomy is still an appropriate approach to conceptualize resource management. By reviewing the seminal works that formed the resource-based view (RBV) and resource dependence theory (RDT), possibilities for cross-fertilization can be indicated. Specifically, this paper re-examines Edith Penrose’s pioneering work “The Theory of the Growth of the Firm” (1959) and Jeffrey Pfeffer and Gerald R. Salancik’s book “The External Control of Organizations” (1978) for complementarities. By integrating the ideas of resources as well as entrepreneurship and framing them within the context of entrepreneurial research organizations, a novel, yet analytical space for synthesis of RBV and RDT is presented.

Keywords: strategic management, resources, resource-based view, resource dependence theory, entrepreneurship, entrepreneurial research organization.

Introduction

Strategic management considers resources essential for coordination of an organization's strategy (Chandler, 1962; Ansoff, 1965; Mintzberg, 1975; Michael et al., 2017; Bamel et al., 2018). Over the decades, the concept of organization’s resources was analyzed, adopted and intermingled with different perspectives. An assumption of unpacking the current dialogue on resources through the original works: inward approach on resource-based view
Organizations. A Resource Dependence Perspective” (1978) generated the platform to understand organizational choices for strategy determined by the situation the firm exists within. Environmental dynamics extended the constraints for the organizational strategy that used to be grounded on internal solutions, values and beliefs (Pfeffer, 2003). This view, that inter-organizational interactions generate salient resources for organization’s survival, designed the fundamentals of institutional and contingency theories (Macpherson, 2005) and associations with rational choice paradigm (Lind, 2020). J. Pfeffer and G. R. Salancik’s work had influence on the change of power enabled by the external resources in the stakeholder management theory (Chaganti et al., 2002).

Literature review also testifies the patterns of quite distant differentiation between theoretical perspectives that originated, developed or were further supported by the seminal work of “The Theory of the Growth of the Firm” (1959) by E. Penrose or “The External Control of Organizations. A Resource Dependence Perspective” (1978) by J. Pfeffer and G. R. Salancik respectively.

The work of E. Penrose on “The Theory of the Growth of the Firm” (1959) has become dominant in the strategic management field, providing a substantial framework for the resource-based approach of the firm. Research in subsequent decades recognized Penrosean insights as the ones originally mainstreaming the resource-based approach in business strategy and organizational economy (Kor & Mahoney, 2000; Pitelis, 2002). E. Penrose’s focus on the productive resources of the firm is inherent with managerial resources as the unique potential to firm’s expansion. Her contribution to knowledge management theory and detailed insights for the competitive advantage of the multi-national enterprises place E. Penrose among the most prominent scholars in the strategic management field (Steen & Leisch, 2007; Verbeke & Yuan, 2007).

Similarly, J. Pfeffer and G. R. Salancik’s seminal work on “The External Control of
the time-line have been rooted in the seminal work of E. Penrose, of which the most central being the approach of dynamic capabilities, knowledge-based view, the perspective of networks, economic geography and innovation systems (De Sousa et al., 2021). Academics analyze and compare these antecedents for complementarities (Burvill et al., 2018; Gellweiler, C. (2018); Lamont et al., 2019; Edwards, 2021; Rohenkohl et al., 2021) proposing re-charging theoretical considerations and empirically proven interpretations of the mentioned perspectives within the Penrosean origin.

Similar tendency can be noticed when reviewing the academic works, that focus on the evolutionary path of J. Pfeffer and G. R. Salancik’s ideas. Scholars explore inter-dependencies between the organization theory (Ozturk, 2021), the agency theory (Cuervo-Cazurra et al., 2019), the view of institutional work (Lind, 2020), transaction theory (Davis and Cobb, 2010) or the approach of entrepreneurial ecosystems (Roundy and Bayer, 2019) and RDT.

Although both E. Penrose’s and J. Pfeffer and G. R. Salancik’s works had received immense attention as they were debated in numerous academic discussions, both works were taken from rather different perspectives – RBV and RDT respectively. In other words, RBV and RDT were and still are typically taken as two different approaches, skipping the likelihood for their synthetic approach that may serve as potential of enriching their applicability patterns, which frames a research problem of this paper. However, “grounded in reality” or addressing “real world phenomena”, as P. L. Drnevich et al. (2020) noted, it could employ theoretical considerations with effectiveness and efficiency of managerial problems. In such way strategic management perspectives, beside suggestions of formulation or solving of problem, facilitate engagement and, subsequently, create new additional value.

The reason to analyze E. Penrose’s and J. Pfeffer and G. R. Salancik’s seminal works in an integrative manner is that there exists a research gap of possible complementarities of both approaches – RBV and RDT. Previous research of RBV and RDT performed in similar integrative pattern, for example, had analyzed the critical necessity of resources for the firm’s behavior (Barney, 1986), evolutionary aspects of resource-based strategies shifting power to the international networks (Medcof, 2001) or performance heterogeneity as multi-dimensional effectiveness to manage stakeholder resource dependencies (Bandeire-de-Mello, 2007). Certainly, a major reason for this might be richness of either E. Penrose’s or J. Pfeffer and G. R. Salancik’s books, which consequently delivered substantial theoretical and empirical analyses on numerous issues of organizational strategy. However, the same rich pattern of those two scientific works allows for converging RBV and RDT.

The aim of this paper is to re-consider the seminal works of Edith Penrose “The Theory of the Growth of the Firm” (1959) and Jeffrey Pfeffer and Gerald R. Salancik “The External Control of Organizations. A Resource Dependence Perspective” (1978) and argument the suggestions for cross-fertilization between the two. The idea of possible complementary of these two seminal works is framed by the following research question: how can we
blend RBV and RDT to generate more understanding than using these positions individually?

When analyzing seminal works of Edith Penrose “The Theory of the Growth of the Firm” (1959) and Jeffrey Pfeffer and Gerald R. Salancik “The External Control of Organizations. A Resource Dependence Perspective” (1978) the objectives of this paper are:

- to argument for cross-fertilization of the concepts of “resources” and “entrepreneurship” as these were interpreted and presented in the seminal works;
- to explore the possibilities to adopt ideas by E. Penrose and J. Pfeffer and G. R. Salancik for the entrepreneurial research organization that strives for higher research and innovation performance results;
- to provide recommendations of possible cross-fertilization of the RBV and RDT as applied for an entrepreneurial strategy of a research organizations.

In order to achieve the aim of this paper and the objectives indicated above, the literature analysis method was applied.

This paper is structured as follows. Considerations of possible complementarities between E. Penrose’s and J. Pfeffer and G. R. Salancik’s scientific works focuses on the concept of resources. Discussion on the ways both perspectives could be complementary is developed based on their interpretation of entrepreneurship. The latter becomes essential for modelling the competitive advantage of research organizations that strive for superior research and innovation performance. Finally, limitations of the research and suggestions for future research are provided.

Resources

Edith Penrose clearly defines an organization’s resources as a unique “bundle of potential services” that (…) “can be defined independently of their use” in contrast to mere services taken as functions or activities (Penrose, 1959, p. 22). E. Penrose thus constructs the importance of heterogeneity of organizational resources for the inner strength of competitive advantage. On the other hand, J. Pfeffer and G. R. Salancik take the contrary perspective on the resources, claiming the availability of them as the consequence of the inter-organizational dependencies. Contextual importance, therefore, transfer the center of connotation (and control) of the “resources” to the external environment of the organization. Taking such a distant spectrum of two positions and with its broad connotation of the “resources” also allows opportunity for the synthesis of either inner organizational resources or resources from external environments.

Edith Penrose on resources

In the Penrosean perspective, the organization’s resources focus on the internal assets with a reproductive pattern, formed under administrative decision (Penrose, 1959, p. 21). Simultaneously, differentiation of tangible (like capital and facilities) and intangible (like know-how) resources follows, but the accent lays on the potential services rendered by these resources.

The goal of firm’s growth through knowledge management becomes significant in E. Penrose’s theory. It implies
the importance of knowledge as a prerequisite of expansion the organization can stipulate. Equally important is the employees' skills to absorb new knowledge, manage it and invoke it for the ultimate goal of organizational advantage (Penrose, 1959, p. 67). For this reason, E. Penrose is maintained to have contributed much to the knowledge management research field. By integrating knowledge management in the RBV, E. Penrose suggested that an organization's internal capacities to manage knowledge leverage the importance of services rendered by resources, knowledge being among them (Darroch, 2005). The unique knowledge that organizations produce or deploy produce their competitive advantage over other companies. Knowledge spill-over is the reason for entrepreneurship, a strategic axis for diversification of activities, ultimate use of resources and potential for organizational development (Agarwal et al., 2008).

E. Penrose suggests that learning (officially taught and, especially, in the form of personal experience) can determine productive activity and, if used efficiently, subsequent expansion (Penrose, 1959, pp. 48-49). When knowledge changes, possibilities to use services also change accordingly: unknown or unused services have the potential to be of immense importance due inherently hidden new knowledge as well as its scope and direction. Therefore, the incentives to explore and analyze, dwelling into research and innovative activities can promise expansion in value of the organizational services (Penrose, 1959, pp. 68-69). The formation of new services is time consuming though, which constrains the growth of the organization. Herewith E. Penrose also argues for the effect of bounded rationality caused by unilateral perception abilities of managers (Penrose, 1959, p. 50). Growth directly depends on managers, but it also depends upon the size of expansions that needs to be coordinated. Knowledge-related expansions, may be claimed, to require more managerial attention, than for example, capital-related expansion, as the latter is less sensitive to higher needs of “managerial planning and coordinating tasks” (Penrose, 1959, p. 182). The intangible character of knowledge, as a primary resource for the research organization, demands careful coordinating functions that would lead to successful knowledge creation, acquisition, transfer, deployment, monitoring and evaluation. At the same time, E. Penrose refers to external conditions that also are influential for the organizational expansion. Here, she states that newly established organizations, especially operating unique resources and productive services have the high potential to grow. In contrast, the established organizations functioning in competition with organizations of similar strength, position and size face boundaries for expansion. Therefore, their growth potential directly depends on innovative activities because of research and development. Certainly, this is costly, but diversification of organizational activities with experimentation to produce novel solutions, can generate an organization’s growth (Penrose, 1959, pp. 183-184).

In summary, the Penrosean position on the organization as a collection of services rendered from resources controlled within administrative manner,
concentrate attention on the organization’s inner capacities to grow. Alongside, the perception of cumulative force of knowledge with the purposive direction of expansion is the grounding for evolution.

**Jeffrey Pfeffer and Gerald R. Salancik on resources**

J. Pfeffer and G. R. Salancik’s external perspective on the organization takes the environment as a dominant factor for the concept of resources. The dual role of resources – relative magnitude of resource exchange and the criticality of resources – determine the baseline of J. Pfeffer and G. R. Salancik’s proposal for the social control of resources. The authors claim that organizational vulnerability is directly dependent on the changes within the environment that condition external need for the resources (Pfeffer and Salancik, 1978, p. 46-47). Discretion over resource allocation and utility creates power, which is the most important element of organizational strategy in a highly competitive environment. Certainly, discretion may be shared on multiple levels: when possessing knowledge, when allowing for or limiting the allocation of resources, when using the resources and concentrating the resource control for the use by others or finally regulating and enforcing the possession, allocation and use of resources (Pfeffer and Salancik, 1978, p. 47-54). In any way, the manipulative behavior over the resources, though rarely symmetric with all inter-organizational relations, can establish the axis for the organizational survival.

J. Pfeffer and G. R. Salancik’s institutional presupposition formulates the outward strategy for organizational survival. Certainly, the power to control an organization’s environment forms the possibilities for the resources, but at the same time, it exists as constraints to the enactment of the environment due to the existing organizational and informational structures of the organization (Pfeffer and Salancik, 1978, p. 89). Determination of enacted environment is hindered within the recognition and perception of the context. This suggests that J. Pfeffer and G. R. Salancik also include the importance of information management axis into the organizational strategy. Equally, the authors claim that the scope of an organization’s control of resources is directly dependent on the empowerment of “individuals to act on its behalf and to regulate the use, access, and allocation of organizationally generated resources” (Pfeffer and Salancik, 1978, p. 259). In this manner, the authors indicate an individual’s subjectivity as certain constraints organizations experience when developing the resource-dependence alternatives.

Using the example of research organizations, J. Pfeffer and G. R. Salancik directly refer to their 1974 study by noting “two most critical resources for a university: research funding and academic prestige” (Pfeffer and Salancik, 1978, p. 232). The acquisition of both comes from external environment and subsequently may influence the research organization’s strategy by rendering more attention to the research and innovation field attracting more income or producing with higher research and innovation performance results. Paradigmatic constrains thus determine
the research organization's choice, organizational legitimacy, certain power distributions within inter-organizational relations and subsequent effects for organizational survival (Pfeffer and Salancik, 1978).

To summarize, J. Pfeffer and G. R. Salancik frame an organizational perspective that is responsive to its contextual changes. Resources become the key for the social processes of control and power over others. Survival of organizations depends on their strengths to recognize, perceive, manage, control, negotiate and influence environmental contingencies. Consideration of demands of inter-related organizations allows for interlocking of resource-focused activities as the main objective of setting the control over other organizations within the environment.

Entrepreneurship

The traditional perception of entrepreneurship is usually associated with an organization's internal managerial capacities. Entrepreneurship involves the probabilities of the resources used in most efficient ways. On the one hand, either prior knowledge or cognitive absorption of new knowledge together with personal abilities to exploit the opportunities while establishing a new entity or enhancing the advantages of the existing one, form an entrepreneurship framework (Shane & Venkataraman, 2000). On the other hand, incorporation of entrepreneurship into the strategic management field maintains subjectivism denoted by individual perception, knowledge, experience and expectations alongside creativity and accountability for decisions made (Foss et al., 2008).

There are, of course, interpretations of this concept as essentially reflecting the primary idea of organizational activities that echoes the external demands and, therefore is profitable. Typically, entrepreneurship is associated with nascent companies. In other words, the entrepreneurship is considered as a compulsory pattern of newly established organization, that usually lacks resources, justified competencies, and has not yet generated path-dependent solutions and experience high degree of uncertainty to efficiently perform on the market. Surprisingly enough, E. Penrose and J. Pfeffer and G. R. Salancik, as analyzed for complementarities, can enrich the understanding of entrepreneurship to the extent that this could be taken as the axis for the formation of competitive advantage of an organization that is either nascent or mature. Certainly, convergence of several issues, although based on logical arguments, implies uncertainty. However, the entrepreneurship pattern of the strategic choices organizations make creates space for beneficial endowments and further development of the entrepreneurship theory.

Penrosean ideas on entrepreneurship

E. Penrose gives fundamental attention to effective coordination of the firm’s resources by implying the centrality of the individual as the main source of firm’s survival, growth and constraints (Spender, 1994). E. Penrose places a well-pronounced accent on entrepreneurship, separating this attribute from
managerial services that focus on operational functions only. According to E. Penrose, entrepreneurial services are essential for decision-making, innovation development and overall organizational expansion. Entrepreneurship is the key to ambitious, but justified strategy to become dominant in the market (Penrose, 1959, pp. 35-37; pp. 160-161). Certainly, entrepreneurship is path dependent, since productive services have the potential to grow directly depending on the time-scale of organization's existence. Simultaneously, entrepreneurship is hindered within the ambition to expand the organization's growth. For this, entrepreneurs allocate, deploy, develop and maintain new possible services that resources can render (Penrose, 1959, p. 36). The role of management is central to absorb, evaluate, and deploy knowledge for successful decision-making at the same time forming a long-term vision for the firm's strategy. "Entrepreneurial services are those contributions to the operations of a firm which relate to the introduction and acceptance on behalf of the firm of new ideas, particularly with respect to products, location, and significant changes in technology, to the acquisition of new managerial personnel, to fundamental changes in the administrative organization of the firm, to the raising of capital, and to the making of plans for expansion, including the choice of method for expansion." (Penrose, 1959, pp. 28-29).

Thus heterogeneity of resources are two-fold: possessed unique resources invoked to implement the strategy and productive services from the resources that generate entrepreneurial productivity (Foss et al., 2008). In this way, it may be stated that Penrosean insights on entrepreneurship appeal to an individualistic approach or simple personal characteristics. It is partly in the individuals' abilities (or psychology) that the organization has the potential to enhance its competitive advantage over time to become profitable (economics) finally. In other words, the subjective notion of creative abilities empowers a person to be entrepreneurial. Previous experience, absorbed and interpreted information, created knowledge by different individuals generate different services from the same resources (Mahoney & Michael, 2005; Zahra et al., 2006). Therefore, E. Penrose introduces the term "entrepreneurial versatility", in this way emphasizing the importance of an infinite source of creativity to the possible diversity of choices that could be made of the firm-level resources. Novelty for E. Penrose is an essential attribute of entrepreneurship, but for pragmatic reasons, concentrating on the growth of the firm (Mahoney & Michael, 2005; Zahra et al., 2006).

E. Penrose enriches the picture of an entrepreneur stating that fundraising skills, creative decision making (or "entrepreneurial judgment") and motivation for the firm's expansion (or "entrepreneurial ambition") belong to the individualistic traits of the entrepreneur (Penrose, 1959, pp. 32-37). Only in this way the perception of creativity together with quite autonomous judgmental interpretation of an organization's resources allow for exploiting the opportunities for the organization to grow. E. Penrose is, therefore, considered the one that stressed the importance of creativity as an internal organizational power determined
by an individualistic approach. Generally speaking, Penrosean considerations on entrepreneurship echo the subjectivism (Mahoney & Michael, 2005; Zahra et al., 2006) and its statement that entrepreneurs have the potential to create economic change rather than just respond to the external dynamics (O’Driscoll and Rizzo, 1996).

However, E. Penrose also notes that the expansion rate of the firm depends on the managerial services. Therefore, E. Penrose also discusses the constraints of organizational growth. Coordination becomes a central topic for decision-making, scope of responsibility and authority, especially in complex firms heading for expansion. Cases of acquisition and/or merger also directly depend on the managerial skills to integrate resources and adapt them to changing conditions (Penrose, 1959, pp. 181-185). Ultimately, the component of boundaries inherent in the entrepreneurship finishes the entrepreneurial process of an organization as an administrative unit with the internal capacity to control its resources (Landström et al., 2012).

**Jeffrey Pfeffer and Gerald R. Salancik’s implications on entrepreneurship**

J. Pfeffer and G. R. Salancik, primarily focus on inter-organizational dependencies, allow certain considerations on social capital. It is in the organizational links and inter-organizational activities that the essence on information availability is hindered (Davidsson & Honing, 2003). The connotation of inter-relational networks among organizations arise, alongside giving indirect sign of entrepreneurship potential.

According to J. Pfeffer and G. R. Salancik, organizational boundaries are decided on the perceptions of power, i.e., the ways the organizations can control their resources, important relations and thus, influence positive dynamics of their survival. The dominant of power establishes organizational constraints that are prominent upon behavior. Cognitive capacities, creativity, adaptation, individual preferences and decisions – all are the results of organizational constraints. Simultaneously, all can be invoked for manipulation of the behavior of others (Pfeffer and Salancik, 1978, pp. 14-16). However, when choosing power tactics, the size of organizational capacities matter. Large companies have the potential to play with inter-organizational relations, bringing the power of resources for the benefit of their own competitive advantage. Therefore manipulation by powerful and resource-rich organization forms the stage to make resource commitments, creates market entry barriers, and maintain inter-locking situations (Santos & Eisenhardt, 2009).

With the help of power and control constructs, J. Pfeffer and G. R. Salancik form outwardly directed institutional perspectives of organizations. To justify the credibility of performance the institutional theory implies that correspondence to societal beliefs is fundamental; otherwise, due to perceived legitimacy the resource acquisition cannot be attained. J. Pfeffer and G. R. Salancik clearly define organizational effectiveness as the most desirable, but external standard to meet the demands of diverse stakeholders that an organization’s activities
concern. In other words, the economic pattern of organizational effectiveness indicates the importance of contextual perspective, since essential resources can be gained only outwardly.

J. Pfeffer and G. R. Salancik also state that organizational efficiency denotes the internal activities and results the organization have achieved – the rate of resources used for the desired output. Here the managerial perspective plays a triple role. Being symbolic, responsive and discretionary, the managers are important, certainly, to the extent and sort of environment organizations performs within (Pfeffer and Salancik, 1978, pp. 11-12; pp. 262-268). This is the way in the institutional strategy the authors allow for managerial interruption. In addition, this discount for the role of managers create vital synergy for the perception of organization's external dynamics.

According to J. Pfeffer and G. R. Salancik, individual control over the administrative decision can only suggest symbolic representation of organizational actions. Promising, yet minimally significant functions of managers to stabilize the organization, echoes the individualistic approach of any of employees the organization has. However, a manager’s decisions are suggested or framed by environmental interdependences, thus carry minimum potential to change organizational course. J. Pfeffer and G. R. Salancik do not deny the importance of decision-making, they emphasize that choice is made by the managers, but most importantly, information about the environment and possible alternatives it can suggest pre-formulates the choice. Social context is dominant in the decision-making: it constrains the decision, so managers are necessary for gathering external information (Pfeffer and Salancik, 1978, pp. 265-266). Symbolic perceptions are therefore essential for understanding the categories that frame social situations and interpret them to perceive their multi-dimensionality in the right way, thereby minimizing the uncertainty of the context (Ashfort and Humphrey, 1997).

The responsive role of managers is determined by the “demands and dependencies of confronting the organization, and then adjust(ing) the organization accordingly (Pfeffer and Salancik, 1978, p. 265). Although the environment frames this decisive attribute, it hinders the entrepreneurial potential to recognize the organizational needs, process them and discretionally correlate them to the environmental potential to fit the organizational strategy.

Accordingly, it may be stated that J. Pfeffer and G. R. Salancik formulates entrepreneurship as the ability of an organization's management to perceive environmental constraints. The authors hold the position that symbolic managerial power comprises minimal influence on the external conditions, however, they simultaneously allow implications for the importance of the role of managers even within the determined environment. Choice, therefore, becomes important in the concept of entrepreneurship that J. Pfeffer and G. R. Salancik obscurely draw: processing the constraints of the context and forecasting alternative consequences is the way to approach the choice. The latter is considered the essence of management, not the descriptive process of decision-making. Attention should be essentially on the information gathering suspective
with response to organization's context (Pfeffer and Salancik, 1978, p. 266). Constraints are imposing, and this generates the entrepreneurial potential to perceive them and fit the organization into them.

To summarize, J. Pfeffer and G. R. Salancik's institutional approach to the strategic management is also rich with components for the mosaic of entrepreneurship. The external environment should be in the range of the managers. Information processing, although more routine than strategically changing, is the direction of institutional choice. Entrepreneurship, thus, gains numerous layers by interfacing the monitoring, evaluation, formation of alternatives and choice making solutions.

**Entrepreneurial research organization**

Today's university or research institute, striving for higher research and development as well as innovation results (hereinafter – research organization), positions knowledge management central to the abilities to produce new knowledge, knowledge and technology based solutions applicable in the market or for society (Etzkowitz et al., 2021). Even though there is still absence of a unite definition of entrepreneurial research organization (O'Reilly et al., 2019) or one formula of the best knowledge management strategy, research organizations strive to combine their tangible and intangible resources with the specific managerial skills for better research and innovation performance results and greater exploitation of newly created scientific solutions for their own profit as well as for the economic development of the region (Bezanilla et al., 2020). The perception of the research organization as a knowledge management system operating within knowledge production, storage, transfer and application processes implies the centrality of multifaceted organizational knowledge and knowledge management for the formation of competitive advantage (Alavi and Leidner, 2001; Gianiodis and Meek, 2020).

Heterogeneity of research and innovation evaluation systems and diverse ranking approaches across countries provide the assumption that research organizations should be central to state's or region's innovativeness development (Feola et al, 2021). Consequently, strategic goals of contemporary research organizations have broadened up to balance societal needs. It is not only about knowledge production and transfer for educational goals that research organizations are keen on, it is also about knowledge application, which is essential for the advancement of enterprises and the economy of either region or state (Graf and Menter, 2021). Together with education and scientific endeavor for novelties, entrepreneurship became the strategic axis for the strategic management of the research organizations. Therefore, it is notable, that for the last several decades, research organizations have focused intensely on their entrepreneurial potential trying to realize commercialization possibilities of their research and innovation performance. This aspect is crucial when exploring the possibilities to adopt ideas by E. Penrose and J. Pfeffer and G. R. Salancik, or even a mixture of them, for the strategic decisions research organization might be worth considering.
The intense competitive environment between research organizations, whether on national, regional or international level, requires the institutions to create a knowledge management framework that generates fruitful research performance. Certainly, the specifics and nature of research and innovation activities (for example, basic research and its longitudinal projections of applicable results) and unique elements of the research environment (e.g., variety of educational, economic and social issues across the countries) require a multi-dimensional approach for the formation of a research organization’s competitive advantage. The search for the socio-economic spill-over effects on local, regional, national and international transformations (Benneworth et al., 2009; Zhang et al., 2016; Prencipe et al., 2020) suggests a macro perspective on knowledge management, in this way reasoning the pace of competitiveness. However, the diversity of research on knowledge management capabilities (like creation/knowledge production, acquisition, integration, application, protection) for organizational efficiency have not suggested a thorough examination of contextual implications for the research organization’s knowledge management. The alignment of a research organization’s entrepreneurial skills, knowledge and attitude towards the dynamics of its environment could suggest the potential for more effective formation of a research organizations’ competitive advantage.

Despite obvious specificities to manage a research organization that contrast with business companies, the formation of their competitive advantage is primarily grounded on resources. Therefore, J. Pfeffer and G. R. Salancik used the case of budget allocation at university as a reference point of power and resources in organizations. They concluded that the power to receive support from the environment influences the negotiation abilities for resources (Pfeffer and Salancik, 1974). This notice gave impetus for J. Pfeffer and G. R. Salancik’s elaboration on resource dependence perspective, resulting in “External Control of Organizations: A Resource Dependence Perspective” (1978).

Having this in mind, today’s entrepreneurial research organization as socially responsible is quite tightly squeezed to demonstrate a progressive strategy that efficiently uses its internal resources, invokes inter-organizational relations in order be at the forefront with its research and innovation performance. Expansion of a research organization’s aims from generating new knowledge and scientific discovery to research applicability and societal progress, obligate the research organization to have a complex, yet pragmatic strategy. These reciprocal needs can be satisfied under the integrative approach of RBV and RDT perspectives.

**Entrepreneurship as versatile axis for research organization’s competitive advantage**

Synergetic potential between E. Penrose’s internal mechanisms for the rate and direction of the firm’s growth and J. Pfeffer and G. R. Salancik’s employment of inter-organizational dependencies produces multi-dimensionality of entrepreneurship, which is the axis for competitive advantage a research organization can
gain (see Figure 1). Cross-fertilization of both – RBV and RDT – while forming and executing the research organization’s strategy within the dynamic environment, open a multi-faceted and substantial path towards successful performance.

As depicted in Figure 1, coining of managerial services for the efficiency of internal resources together with control and power over the external resources can be advantageous for the embeddedness of the research organization. To be more specific, reciprocal development of entrepreneurship as an essential managerial attribute for the strategy of research organization can deliver with superior research and innovation performance. For that, the research organization should primarily consider versatility of its resources (especially, the intangible ones) equivalent to entrepreneurial managerial services. Penrosean suggestion for the productive opportunity rendered by a balanced combination of unique resources with unique services performed comprise part of the organizational value created (Penrose, 1959, 66). Heterogeneity of resources would allow leaders of research organization performing more strategic actions, most often at lower transaction costs and with more flexibility while changing expansion strategies. As W. H. Chen et al. (2019) proves in the study, balanced mixture of top management and functional executives guarantees the potential to cross the managerial constraints on the growth of organizations. Subsequent quicker adoption of an organization’s resources to dynamic environments open up the growth possibilities. Otherwise, specific resources lock in the organization’s strategic decisions to overcome growth constraints (Nason and Wiklund, 2015). Therefore, the primary step of the entrepreneurship of research organization is about recognizing, encouraging, managing and directing and monitoring its versatile resources.

Another part of entrepreneurial potential is sheltered within the ability to grasp the opportunities provided from the organization’s environment. Entrepreneurial discovery arises from individual capabilities, but also from external dynamic interactions that frame entrepreneurial judgement (Foss et al., 2019). Such mixture of internal capabilities and their balance with external stakeholder interests and opportunities would allow research organization’ leaders taking up the expanded roles, (Klofsten et al., 2019), which they avoid (O’Reilly et al., 2019). Resource optimization can sometimes be critical for execution of strategic actions and can be hindered with external conditions of organization. Cognitive and social interactions between organizations determine multiple opportunities for entrepreneurship (Foss et al., 2008).

Entrepreneurial potential extended to external dynamics in Penrosean theory provide the possibility to grasp the relation with the resource dependence theory. Assessment of contextual interrelatedness and leveraging it to organizational demands may outline organizational behavior in favor of its survival (Pfeffer and Salancik, 1978, pp. 88–89). However, the survival in J. Pfeffer and G. R. Salancik’s book is dependent on the influence on the behavior of others for the favor of the primary organization. Therefore, power strategy gains the main role to discover, form and exploit resources, at the same time reducing dependencies on other organizations (see Figure 1).
Enactment of a research organization’s environment would suggest a systematic approach towards observation, experience, and perception of any stakeholders to their upmost importance. The monitoring function, therefore, is fundamental for the management of a research organization’s networking activities. External constraints propose adaptation, but awareness of possible influence or resource dependence may lead to a shift in the research organization’s strategy (Pfeffer and Salancik, 1978, p. 111).

However, taken the specificity of the activities research organization perform in research and innovation field, diversification of resources is quite problematic. Here it should be noted that a research organization’s resources and services rendered are more path dependent and limiting than encouraging expansion. Nevertheless, entrepreneurship can help in the situation of search for alternative resources or alternative supply. Here the Penrosean distinction between resources and services rendered may be beneficial for the contemporary research


Source: compiled by K. Babelytė-Labanauskė.
organization, which cannot operate independently, but is dependent on interorganizational collaboration activities. Leveraging the services rendered outside the organizational constraints with their own resources can create possibilities for new academic, business or socially engaging interdisciplinary partnerships and new opportunities of growth (Nason and Wiklund, 2015). Scanning for new potential partnerships, exploring external demands, even taking up the control to form the demands could suggest higher competitive advantage for the research organization to perform superior in research and innovation area within knowledge ecosystem (Jucevicius, et al., 2021). Proactive consideration of external interdependencies is what most of research organizations lack, which would directly mean generation of additional value not only of direct stakeholders, but for society in general, by also taking up an active heterogeneous role in modelling the progressive economic path of the region or the knowledge ecosystem itself (Clauss et al., 2018). Certainly, but this is impossible for newly established organizations. These are firstly forced to invoke their competences to refrain external ambiguities. Only the later stage of organizational development can suggest altering, negotiating and creating environment (Pfeffer and Salancik, 1978).

At the same time, measurement of uncertainty is naturally more complex than just resource exchange for the sake of resource diversification or problem of resource scarcity (Pfeffer and Salancik, 1978, p. 232). However, besides those challenges all organizations that try to capture issues related to risk, research organizations have even harder tasks. Since knowledge management activities (like creation and or knowledge production, acquisition, integration, application, protection) are their primary focus in the strategy, diversification of activities to minimize the risk of failure, are complicated. External demands by various stakeholders (business, social – like government, for example, or academic partners) suggest implications for detailed attention to their interests. The changing patterns of these interests should also be included in the degree of risk aversion, thus leading to stronger risk management competencies. In other words, dynamic or even turbulent contexts and constantly changing and intermingling industries, deliver choices. Research organization should be able to assess them and use up to their utmost value.

Intermingling resource-based view and resource dependence theory within the context of research organization enriches the traditional perception of the seminal works representing resource-based streams in management. This analysis indicates that original works by E. Penrose and J. Pfeffer and G. R. Salancik can be interpreted alongside in a novel way. Research organization, even with their special focus on knowledge-centered-capital, also puts efforts to form its strategy. Therefore the potential to cross-fertilize the possibilities for resources and open-up the avenues for entrepreneurship can be complemented by environmental dynamics. Velocity of changes in the environment of research organization can suggest fresh insights for its entrepreneurial features and unlock additional resources by manipulating power and
control mechanisms. Accordingly, this re-exploration of seminal works forming resource-based view and resource dependence theory highlight contiguous sides and interflow of resource-centric theories. In other words, staying on different sides of the road is not a verdict, but rather an opportunity to search for affinity.

To summarize, an integrative approach on E. Penrose's and J. Pfeffer and G. R. Salancik's considerations can reduce the research gap and contribute for the strategy of entrepreneurial research organization, seeking superior research and innovation performance and delivering research and innovation-based value for society. Although complex, a mixture of inbound and outbound perspectives on managing its tangible and, especially, intangible resources, may provide with a wide range of possibilities for adequate choices. Herewith, multidimensionality of entrepreneurship could serve as a versatile axis for research organization’s competitive advantage.

Additionally, the approach taken in this article, even though framed within the entrepreneurship strategy of a research organization, delivers new insights as to educational and practical purposes. The search for differences allows for clear and easily explained path and method to deliver the foundations of the RBV and RDT perspectives for students. But taking other lens and mixing the features when applying the theories to the concrete case, unpacks the cross-fertilization and enrichment potential of the RBV and RDT as well as the alternative strategic thinking that organizations can choose, model and execute.

**Limitations and implications for further research**

This paper is essentially focusing on the original founders of RBV and RDT perspectives. It is natural and obvious, that evolutionary paths of both approaches were enriched by a diversity of theoretical considerations and empirical findings. Therefore, the focus of the discussion on the original E. Penrose's and J. Pfeffer and G. R. Salancik's ideas may be considered limiting. Retrospective synthesis of RBV and RDT accordingly and/or in integrative manner would reveal even a richer picture on possible complementarities. Thus, the next step could be taking the very streams of RBV and RDT into consideration, while including the founding authors as well.

Another limitation of this paper could be the choice of the focus in this paper on the entrepreneurial research organization. Even though unique as providing insightful ideas for academia and business collaboration, entrepreneurial research organization is only one case that E. Penrose's and/or J. Pfeffer and G. R. Salancik’s ideas on the resource-focused (from inbound or outbound or mixed perspectives) strategy could be tested and further modelled. The growth pace of a specific industry differs as well as inherited resources. Similarly, the contextual specifics the industry operates within are original and may require unique strategic decisions. This constraint also suggests unveiled theoretical and empirical research possibilities.

In its own turn, theoretical grounding of this paper also requires empirical testing. Utilizing of current findings for the empirical research could strengthen
reliability of this analysis and expand the generalizability of these results.

**Conclusions**

The seminal contributions of E. Penrose and J. Pfeffer and G. R. Salancik address critical issues of organizational management. Having established two different perspectives – RBV and RDT, E. Penrose’s and J. Pfeffer and G. R. Salancik’s scientific works may also be interpreted in integrative manner. Adoption of E. Penrose’s as well as J. Pfeffer and G. R. Salancik’s considerations on resources, but most importantly, entrepreneurship, creates opportunities to consider space for complementarity. The possibilities for cross-fertilization arise when analyzing the case of entrepreneurial research organizations, especially those concerned with research and innovation performance.

Resources are central to both lines of research and are essential for the formulation of competitive advantage or, at least, an organization’s survival. Penrosean versatility of resources and, especially, services rendered, create internal strengths for competitive advantage. Simultaneously, J. Pfeffer and G. R. Salancik’s suggestions on inter-organizational behavior, as a consequence of the external environment, should be equally aligned to all organizational efforts to leverage its competitors.

Efficient use of versatile internal, external inter-dependencies between organizations or blending both can remodel the organizational strategy to superior growth. Integrative approach on the original ideas that E. Penrose and J. Pfeffer and G. R. Salancik had introduced, therefore, allowed presupposition of filling the research gap on the greater value of complementary patterns of RBV and RDT.

As for entrepreneurial research organization, its internal leadership-framed abilities to create, use, re-distribute knowledge-based resources that research organizations may invoke to model its competitive research and innovation strategy can be attributed by independently established potential to also inspire, suggest and engage when delivering solutions to their external stakeholders’ needs. The latter is still challenging and needs to be strengthened by today’s research organization when taking up their entrepreneurial mission to generate value for the economic development of the region and society in general (Etzkowitz et al., 2018). Establishing the entrepreneurial and influential role within society rather than just being subordinated and supported by the government or business, the research organization may enrich its knowledge-centered strategy with the additional resource forming elements that can be found within the external environment and thus proving multi-dimensional avenues for growth (O’Reilly et al., 2019). This proves the novelty of this research work, as well as generates wider applicability trends, when taken RBV and RDT in cross-fertilized manner.

In accordance to the re-conceptualization of RBV and RDT and integrative possibilities of the two approaches, this paper can also serve as an exemplary teaching case within the strategic management discipline. The analysis of seminal works of E. Penrose and J. Pfeffer and G. R. Salancik through the adoption of the context of entrepreneurial research organization delivers complementary insights that blend
conventional interpretation of RBV and RDT. Certainly, there is still much to be tested in the same synthetic character, but the insights provided in this paper could frame the overloading trend towards possible integration of RBV and RDT perspectives.

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References


RE-EXPLORING SEMINAL WORKS ON RESOURCE-BASED VIEW AND RESOURCE DEPENDENCE THEORY: THE CASE OF ENTREPRENEURIAL RESEARCH ORGANIZATION


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IŠTEKLIAS PAGRİSTĄ POŽIŪRĮ IR PRIKLAUSOMYBĖS NUO IŠORINIŲ IŠTEKLIŲ TEORIJĄ SUFORMAVUSIŲ MOKŠO DARBŲ ANALIZĖ: VERSLI MOKSLINIŲ TYRIMŲ ORGANIZACIJA

S a n t r a u k a

Strateginio valdymo atveju ištekliai yra būtini organizacijos koordinuoti (Chandler, 1962; Ansoff, 1965; Mintzberg, 1975; Michael ir kt., 2017). Organizacijos išteklių samprata paskutinių keturių dešimtmečių buvo analizuojama, pritaikoma į kitas įvairias mokslo teorijas. Šiame straipsnyje daroma prielaida, kad analizuojant dėjimą tarp ištekliaus veiksmo ir veiksmų organizacijos strategijos galimybes, taciau šios dvi skirtingos perspektyvos buvo proponuojamos, tačiau jos gali būti laikomos evo-
priklausomybę (Bandeire-de-Mello; 2007). Be abejonių, pagrindinė to priežastis gali būti E. Penrose arba J. Pfefferio ir G. R. Salanciko darbų įvairiapusiškumas ir gylis, kuris ir lemė tolesnę teorinių ir empirinių organizacijos strategijos mokslinio darbų gausą. Ta pati šių dviejų mokslių darbų turinimo savybė kartu leidžia suartinti RBV ir RDT ir kitais aspektais nei buvo tirti iki šiol.


Šio darbo, grindžiamo integralia E. Penrose bei J. Pfeffer ir G. R. Salancik mokslo darbų analize, rezultatai praturtina strateginio valdymo tradicines su išteklių valdymu susijusius požiūrius traktuotes, suteikdamas joms sąsajų ir specifinio papildomumo galimybės. Svarbiausias straipsnio indėlis yra į vidiniais organizacijos išteklių pagrįstą požiūrį ir priklausomybės nuo išorinių išteklių teoriją.

Šio tyrimo rezultatai taip pat prisideda prie verslių mokslo mokslinio tyrimų organizacijos, siekiančios geresnių mokslo mokslinių tyrimų ir inovacijų veiklos rezultatų, strategijos formavimo priešiūrų. Materialių ir ypač intelektinių išteklių valdymo poreikiai yra kompleksiški, tačiau tai į vidinius ir išorinius resursus orientuotų vadybos perspektyvų rimtai gali suteikti daugiau galimybų priimti tinkamus strateginius sprendimus, būtus konkurso įtakos mokslo mokslinių tyrimų organizacijoms. Daugiamėnis verslumo savęs galėtų būti įvairiapusė mokslo mokslinių tyrimų organizacijos konkurencinio pranašumų ašis.

Šio straipsnio rezultatai, nors ir taikomi verslai mokslo mokslinių tyrimų organizacijai, atveria naujų išvalgų edukaciniams ir mokymo tikslams. RBV ir RDT perspektyvų skirto tikslų analize leidžia konstruktivarai papaašinti šias išteklių valdymo kryptis adekvatūrės atvejams, tačiau kitoks požiūrius kampas ir šių mokslo darbų aiškinimas jas pritaikant konkrečiai atvejui atskleidžia RBV ir RDT tarpusavio papildomumo potencialą bei alternatyvų strategijų mąstymą, kurį organizacijai turi pasirinkti ir įgyvendinti.