

UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL  
ESCOLA DE ADMINISTRAÇÃO  
PROGRAMA DE PÓS-GRADUAÇÃO EM ADMINISTRAÇÃO  
DOUTORADO EM ADMINISTRAÇÃO  
(DOCTORATE DEGREE IN BUSINESS MANAGEMENT)

**BERNARDO SOARES FERNANDES**

**Evolution and Competitive Advantages of Startups:  
Unveiling the Resourcefulness Capability.**

Porto Alegre

2024

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Doctoral Thesis presented to the Programa de Pós-Graduação em Administração da Universidade Federal do Rio Grande do Sul, as a final requirement for obtaining the title of Ph.D. in Business Management (Doutor em Administração), with emphasis on Innovation, Technology and Sustainability, at the Federal University of Rio Grande do Sul.

Advisor: Aurora Carneiro Zen, Ph.D.

Co-advisor: Tiago Ratinho, Ph.D.

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**Examination Board:**

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Dedico, com muito amor, aos meus pais, Velocino e Maristela.  
“Ninguém tem maior amor do que aquele que dá a sua vida pelos seus amigos” (João 15:13).

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## LIST OF ACRONYMS

CAPES – Coordination for the Improvement of Higher Education Personnel

CA – Competitive Advantage

IÉSEG – Institut d'Économie Scientifique Et de Gestion

PRINT – Institutional Program for Internationalization

PRISMA – Preferred Reporting Items for Systematic Reviews and Meta-Analyses

RBT – Resource-Based Theory

RBV – Resource-Based View

SCA - Sustainable Competitive Advantage

SLC – Startup Life Cycle

SLR – Systematic Review of the Literature

TCA - Temporary Competitive Advantage



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## ABSTRACT

Startups represent a relevant entrepreneurial movement, which has been an example for other types of organizations (Ries, 2017) due to success cases of startups that have achieved large and rapid growth. Consequently, many studies have attempted to identify the factors contributing to startup triumphs; however, since the success of startups is idiosyncratic to each one, this theme is still far from conclusion. This research was also motivated by an interest in understanding the reasons for the startup prosperity. However, recognizing the uniqueness of each startup's success, it was realized that exploring successful resources management practices would be more useful. This understanding led this thesis to research resourcefulness, that is, smart practices to overcome resource scarcity. After analyzing the process regarding the resourcefulness practices, it was identified that the underlying theory used for this thesis (Resource-Based Theory) could be revisited and contributions could be made for a better application of the RBT concerning startups. The debate on the generation of competitive advantages and performance is one of the most important theoretical approaches in the management field; however, this area does not have a consensus on the basic elements (Barney et al., 2023). This knowledge gap is even larger when it comes to entrepreneurship, as the main theories are focused on more stable sectors (Kraaijenbrink et al. 2009). Considering these considerations, this thesis aimed to identify how startups generate competitive advantage and performance throughout the startup lifecycle. The specific objectives of this thesis are (i) to analyze different startup lifecycle models and propose an integrative framework; (ii) to identify how startups conduct resourcefulness practices throughout the evolution of the startup; and (iii) to analyze the process of generation of competitive advantages and performance of startups. To achieve the general objective, a systematic review of the literature was conducted and 44 professionals in the field of innovation were interviewed. This research involved data collection in Porto Alegre (Brazil) and Paris (France). The results of this thesis encompass (i) a framework on the development of startups; (ii) that resourcefulness actions lead to resourcefulness capability; (iii) the resourcefulness capability development framework; and (iv) a framework regarding the generation of competitive and performance advantage, which includes an advance not only for startups, yet for Resource-Based Theory. It should be noted that such frameworks are cyclical, leading to a multifaceted approach to organizational evolution. The results of this research indicate that competitive advantages can have different levels of intensity and the resources exploitation may be more important for achieving superior performance than the rarity of resources. The integration of the three papers aids in identifying stages and performance influencers, improving startup support. Future research can explore methods for identifying stages, resourcefulness capability, and entrepreneurs' motivation.

## RESUMO

As startups representam um importante movimento organizacional, que tem sido um exemplo para outros tipos de organizações (Ries, 2017) devido a casos de sucesso de startups que tiveram um grande e rápido crescimento. Consequentemente, muitos estudos têm tentado identificar os fatores que contribuem para o trinfo das startups; no entanto, devido ao sucesso das startups ser idiossincrático a cada uma delas, essa temática ainda está longe de uma conclusão. Esta pesquisa foi também motivada pelo interesse em compreender as razões para a prosperidade das startups. Porém, a partir do reconhecimento da singularidade do sucesso de cada startup, percebeu-se que o mais útil era explorar as práticas bem-sucedidas na gestão de recursos. Esse entendimento levou este trabalho a pesquisar sobre a resourcefulness, ou seja, práticas inteligentes para superar a escassez de recursos. Após analisar o processo e as práticas de resourcefulness, identificou-se que a teoria base usada para esta tese (a Teoria Baseada em Recursos) poderia ser revisitada e que contribuições poderiam ser feitas para uma melhor aplicação da TBR no que diz respeito às startups, e até mesmo, de forma geral. O debate sobre geração de vantagens competitivas e desempenho é uma das abordagens teóricas mais importantes na área de gestão; no entanto, esta área não tem consenso sobre os elementos básicos (Barney et al., 2023). Essa lacuna de conhecimento é ainda maior quando se trata de empreendedorismo, já que as principais teorias são focadas em setores mais estáveis (Kraaijenbrink et al., 2009). À luz dessas considerações, este trabalho teve como objetivo identificar como as startups geram vantagem competitiva e desempenho ao longo do ciclo de vida da startup. Os objetivos específicos desta tese são (i) analisar diferentes modelos de ciclo de vida de startups e propor um framework integrado; (ii) identificar como as startups conduzem práticas de resourcefulness ao longo da evolução da startup; e (iii) propor um framework para o processo de geração de vantagens competitivas e de desempenho de startups. Para alcançar o objetivo geral, foi realizada uma revisão sistemática da literatura e entrevistados 44 profissionais da área de inovação. Esta pesquisa envolveu coleta de dados em Porto Alegre (Brasil) e Paris (França), o que foi facilitado por um período de Doutorado Sanduíche na IÉSEG School of Management, em Paris, entre os anos de 2022 e 2023. Os resultados desta tese englobam (i) um framework para o ciclo de vida das startups; (ii) a indicação da existência e do processo da resourcefulness capability; e (iii) um framework sobre a geração de vantagem competitiva e de desempenho, que inclui um avanço não apenas para startups, mas para a TBR. Deve-se notar que tais frameworks são cíclicos, levando a uma abordagem multifacetada da evolução organizacional. Os resultados desta pesquisa indicam que as vantagens competitivas podem ter diferentes níveis de intensidade e a exploração de recursos pode ser mais importante para alcançar um desempenho superior do que a raridade dos recursos. A integração dos três papers ajuda na identificação de estágios e influenciadores de desempenho, melhorando o suporte a startups. Pesquisas futuras podem explorar métodos de identificar estágios, capacidade de recursos e motivação dos empreendedores.

## **THE PAPERS INDIVIDUALLY**

The three papers of this thesis are individually presented in the following part.

**FIRST PAPER: INTEGRATING STARTUP LIFE CYCLE MODELS: A  
FRAMEWORK PROPOSAL DERIVED FROM A SYSTEMATIC LITERATURE  
REVIEW**

## **Integrating Startup Life Cycle Models:**

A Framework Proposal Derived from a Systematic Literature Review

### **ABSTRACT**

**Objective:** The paper aims to analyze different startup life cycle models and propose an integrative framework.

**Design/Methodology/Approach:** A systematic review of the literature was conducted, starting from 558 studies, and resulting in the analysis of 29 selected papers. Based on this review, it was proposed an integrative framework.

**Results:** This paper proposes an integrative framework for the Startup Life Cycle, based on a systematic review of the literature. It also presents a simple way to identify the stages of startup maturity. Moreover, this work addresses the possibilities of startups being simultaneously in more than one stage.

**Originality:** The proposed SLC framework is the first to derive from a systematic review of the literature. Originally, it sought to distinguish startups from other types of organizations. Although there were other SLC models, this one is a pioneer in explaining a method of identifying stages for startups. This work also innovates by addressing that startups can simultaneously be in different stages due to premature scaling and pivoting.

**Theoretical and Managerial Implications:** The present study contributes by proposing a SLC developed from the startup literature and from a rigorous literature review. The proposed framework can ultimately serve as a reliable, comprehensive, and flexible SLC for future research. Managerially, it is highlighted that the proposed SLC can support innovation environments and startup entrepreneurs. Moreover, it is noteworthy that the proposed SLC was already evaluated and selected as the model by a state government action that aims at supporting startups.

**Keywords:** Startup Life Cycle, Maturity Stages, Development, Evolution, Systematic Review, Startups, Maturity Identification.

**SECOND PAPER: RESOURCEFULNESS FRAMEWORK: FROM STARTUPS'  
RESOURCE SCARCITY TO A NEW CAPABILITY**

## **Resourcefulness Framework: from Startups' Resource Scarcity to a New Capability**

### **ABSTRACT**

**Objective:** This paper aims to identify how startups conduct resourcefulness practices along the startup evolution.

**Design/Methodology/Approach:** This is a piece of qualitative research with an exploratory nature. A total of 30 interviews were conducted, comprising specifically (i) 10 Brazilian startup entrepreneurs, (ii) 10 French startup entrepreneurs, (iii) five Brazilian innovation specialists, (iv) five French innovation specialists. All 20 startups were connected to incubators and were in sale stages. The data were analyzed through the content analysis method.

**Results:** This work identified resourcefulness practices developed by startups and the connections among these practices to propose resourcefulness capability. In addition, this study analyzed how the resourcefulness capability takes place, which involved the understanding of its drivers and its evolutionary aspects. The results indicate that the ideal situations to carry out resourcefulness actions involve contexts in which startups have both abundance of certain resources and the scarcity of other resources.

**Originality:** This paper investigates a recent organizational approach, that of resourcefulness. In this regard, this research proposes a new capability and presents the drivers and outcome. This work also stands out for conducting this research in two countries with different economic and institutional contexts.

**Theoretical Implications:** For the resourcefulness literature, this work contributes to the proposition that there are interactions between resourcefulness practices, which leads them to form a capability. It was also highlighted that this capability has an evolutionary character. In addition, a framework of cause-and-effect relationships in relation to resourcefulness was proposed, indicating drivers and how resourcefulness can affect startups. It was emphasized that certain resourcefulness practices are related to the moment of startups and others are transversal. Thus, this work advances by proposing an important adaptive capability, which demonstrates special suitability for the case of startups.

**Managerial Implications:** The results show the need for a balanced approach, indicating the use of the strengths of startups to find more economical alternatives for their growth. In this regard, managers will be able to benefit in situations where startups have limitations of certain resources and an abundance of others. Furthermore, the results can help innovation managers evaluate startups regarding their resourcefulness potential.

**Keywords:** Startups, Resourcefulness, Resourcefulness Capability, Resource Orchestration.



**THIRD PAPER: The Process of Generation of Competitive Advantages and  
Performance of Startups**

## The Process of Generation of Competitive Advantages and Performance of Startups

### ABSTRACT

**Objective:** This paper aims to analyze the process of generation of competitive advantages and performance of startups. Thus, this research is designed to explain the factors that affect the development of competitive advantages and their conversion into performance of startups.

**Design/Methodology/Approach:** This is a piece of qualitative research with an exploratory nature. A total of 30 interviews were conducted, with specifically (i) 10 Brazilian startup entrepreneurs, (ii) 10 French startup entrepreneurs, (iii) five Brazilian innovation specialists, and (iv) five French innovation specialists. All 20 startups were connected to incubators and were in sale stages. The content analysis method was used.

**Results and Theoretical implications:**

There are three main results in this paper: (i) the comparison among the VRIO (Valuable, Rare, Inimitable, and Organized) resources and the process of generation competitive advantage in startups, (ii) the proposition of a framework that deepen the explanation of the process of generation competitive advantage and performance in startups, and (iii) the analysis of how startups can be different than other organizations in the process of generating competitive advantage.

There are three main results in this paper. First, the comparison among the VRIO resources and the process of generation competitive advantage in startups, which indicated that innovation is not always the most important to guarantee the success of startups, rather than, the resource exploitation stands out. Second, herein, it was proposed a framework that deepen the analysis of the process of generation competitive advantage and performance in startups, which is also valid to other organizational types and responds to some of the main critiques of the RBT. Specifically, the proposed framework offers a more explanatory approach on the relationship among antecedents and dynamism of competitive advantages. This framework considers market conditions with a recursive relationship to the resources, competitive advantages, and performance of organizations. And third, it was analyzed how startups are different than other organizations in the process of generating competitive advantage.

**Managerial Implications:** Differing from one of the main critiques of RBT, the herein proposed framework is not an approach that can only be confirmed a posteriori of an organization's success. Thus, the results of this paper reinforce that managers must have a broad view in their strategic formulation, and that they consider the cyclical dynamic related to the generation of competitive advantages and performance.