

**ECOSSISTEMAS DE INTERNACIONALIZAÇÃO: UMA PROPOSTA DE
ESTRUTURA CONCEITUAL PARA A TEORIA DE NEGÓCIOS
INTERNACIONAIS**

*INTERNATIONALIZATION ECOSYSTEMS: A FRAMEWORK PROPOSAL FOR THE
INTERNATIONAL BUSINESS (IB) THEORY*

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Objetivo do estudo

A pesquisa propõe um novo conceito de ecossistema de negócios - o ecossistema de internacionalização - apresentando um arcabouço teórico para explicar sua natureza, a fim de apoiar uma integração conceitual com as modernas Teorias de Negócios Internacionais.

Relevância/originalidade

O conceito de ecossistema de internacionalização não existe na literatura de Negócios Internacionais, nem é estudado a partir de uma abordagem ecossistêmica, sendo percebido apenas como um componente de ecossistemas empreendedores ou ecossistemas de inovação, fortemente influenciados por plataformas digitais.

Metodologia/abordagem

Realizou-se uma Revisão Sistemática da Literatura (RSL) para identificar estudos sobre internacionalização sob uma perspectiva ecossistêmica, seguida de Análise Temática com base nos dados da RSL para determinar seus principais constructos conceituais.

Principais resultados

Um 'framework' de ecossistema de internacionalização foi conceitualizado, integrando os ecossistemas de negócios, empreendedorismo, inovação e plataforma, extraindo elementos cruciais para aprimorar suas dimensões teóricas e práticas no âmbito dos estudos de Negócios Internacionais.

Contribuições teóricas/metodológicas

Do ponto de vista teórico, ao conceber o ecossistema de internacionalização por si só, o trabalho contribui para incentivar a realização de estudos sobre integração e replicação de ecossistemas, lacuna ainda presente na maioria da literatura de Negócios Internacionais.

Contribuições sociais/para a gestão

Em termos de implicações práticas, este estudo apresenta um quadro que permite às organizações se posicionar no contexto de seus objetivos, dinâmicas e interações. Esse quadro atua como uma ferramenta para aprimorar estratégias de internacionalização em várias dimensões.

Palavras-chave: International Business Theory, Internationalization Ecosystem, Business Ecosystem, Theoretical Framework, Systematic Literature Review

INTERNATIONALIZATION ECOSYSTEMS: A FRAMEWORK PROPOSAL FOR THE INTERNATIONAL BUSINESS (IB) THEORY

Study purpose

The research proposes a new business ecosystem concept – the internationalization ecosystem – whilst presenting a theoretical framework to explain its nature, uniqueness and dynamics, in order to support its conceptual integration with modern International Business (IB) theories.

Relevance / originality

The concept of internationalization ecosystem does not exist in the extant IB literature, neither the internationalization phenomenon is studied from an ecosystemic approach, it is perceived only as a component of entrepreneurial ecosystems or innovation ecosystems, heavily influenced by digital platform.

Methodology / approach

A Systematic Literature Review (SLR) was carried out in order to identify the different types of studies focused on internationalization from an ecosystemic perspective and the Thematic Analysis based on data collected in the SLR determined their key conceptual constructs.

Main results

An internationalization ecosystem framework was conceptualized, integrating business, entrepreneurial, innovation, and platform ecosystems, extracting pivotal elements to enhance its theoretical and practical dimensions within the realm of International Business studies.

Theoretical / methodological contributions

Theoretically, on conceiving internationalization ecosystem on its own right, the work contributes to encourage the pursuit of studies on ecosystem integration and replication, which is still lacking in most International Business literature.

Social / management contributions

In terms of practical implications, this study offers a framework that enables organizations to position themselves within the context of their objectives, dynamics, and interactions. This framework serves as a tool for enhancing internationalization strategies across various dimensions.

Keywords: Teoria de Negócios Internacionais, Ecosystema de Internacionalização, Ecosystema de Negócios, Arcabouço Teórico, Revisão Sistemática da Literatura

INTERNATIONALIZATION ECOSYSTEMS: A FRAMEWORK PROPOSAL FOR THE INTERNATIONAL BUSINESS (IB) THEORY

1 Introduction

Internationalisation is theoretically defined in international business theories as the growing participation in global marketplaces. Foreign direct investment (FDI), joint ventures, initial public offers (IPOs), technology exchange, and exports are some of the ways this happens (Zahoor, Al-Tabbaa, Khan, & Wood, 2020; Wentrup, Nakamura, & Ström, 2020; Johanson & Vahlne, 2009, 1990, 1977). As a result, it arises as a phenomenon involving a wide range of organisational categories, including small and medium firms (SMEs), multinational corporations (MNEs), universities, technological centres, government agencies, and even civil society representatives. In its multidimensional network, this complicated and dynamic ecology incorporates both local and international stakeholders (Costa, Cavalcanti, Fernandes, and Arajo, 2022; Luo, 2021; Johnson, Dahl, and Mariussen, 2019; Sekliuckiene, Sedziniauskiene, and Viburys, 2016; Distefano, Gambillara, and Di Minin, 2016).

The expansion of the internationalisation phenomenon gives rise to the concept of a global business ecosystem, which is defined as a network of organisations located in various parts of the world, some of which form large clusters, all of which are interdependently connected in the process of producing and delivering products, technologies, and services to a global market, thereby creating global value (Luo, 2021; Johnson, Dahl, & Mariussen, 2019).

Such ecosystems have been shown to boost competitiveness through networking with domestic and international partners, knowledge sharing, and intercultural development, resulting in higher levels of entrepreneurial activity and innovation within and outside of regional, national, and international organisations (Henn et al., 2022; Tekin, Ramandani, & Dana, 2021; Odei & Stejskal, 2020).

The ecosystem concept was then refined to encompass what was perceived to be their primary purpose and outcomes, taking into account that each ecosystem is unique (Tippmann et al., 2023, Van Schijndel, 2019; Jacobides, Cennamo, & Gawer, 2018; Schafer & Henn, 2018; Adner, 2017; Adner & Kapour, 2010).

Despite the fact that several studies have been conducted on the relationship between internationalisation, internationalisation support, and overall company performance, as Theodoraki and Catanzaro (2021) have pointed out, there are significant gaps in the specialised literature that deals with business ecosystems, specifically internationalisation and how different entrepreneurial ecosystems transcend geographic boundaries by connecting with other relevant ecosystems via globalisation.

Hence, the current work proposes a new business ecosystem concept - the Internationalisation Ecosystem - whilst presenting a theoretical framework (Gerring, 2001) to explain their nature, uniqueness, and dynamics, in order to support the integration of modern International Business (IB) theories into an ecosystem perspective, using a systematic literature review (Denyer & Tranfield, 2009) and thematic analysis (Guest, MacQueen, & Namey, 2012; Boyatzis, 1998).

2 Theoretical Framework

2.1 Business Ecosystems

The concept of business ecosystems goes beyond traditional notions like clusters, marketing ecosystems, and global value chains, including non-traditional players such as social networks, research institutions, regulatory authorities, and civil society representatives (Cha,

Kotabe & Wu, 2023; Hewett et al., 2022; Zeng, Khan & Da Silva, 2019; Rong et al., 2018; Parente, Geleilate & Rong, 2018; Zalan, 2018). It's recognized as a paradigm for understanding business dynamics and interactions (Cha, Kotabe & Wu, 2023; Rong, Kang & Williamson, 2022; Jacobides, Cennamo & Gawer, 2018; Adner, 2017; Adner & Kapour, 2010) and can be viewed from various perspectives like entrepreneurial, innovation, and digital ecosystems (Ferreira, Fernandes & Veiga, 2023; Tippmann et al., 2023; Nambisan, Zahra & Luo, 2019).

Ecosystems evolve differently across nations and industries due to institutional relationships, competitiveness, infrastructure, and cultural factors (Parente, Geleilate & Rong, 2018; Moore, 1993). Despite the emphasis on international networking in international business (IB) literature, gaps exist in understanding international ecosystem interdependence, especially in digital business (Kolagar et al., 2022; Knight and Liesch, 2016). The concept of international business ecosystems involves multinational organizations, nation-states, and others engaged in cross-border exchanges of goods, services, and knowledge, characterized by global value creation and multi-ecosystem interactions (Kolagar et al., 2022; Hult, Gonzalez-Perez & Lagerström, 2020). It's important to note that global business ecosystems are more than geographic associations, encompassing marketing ecosystem orchestration and extending beyond geographical boundaries (Hewett et al., 2022; Ray, Kathuria & Kumar, 2020).

2.2 Entrepreneurial Ecosystem

The concept of entrepreneurial ecosystems, widely embraced in specialized literature, encompasses dynamic interactions among diverse actors, organizations, and processes within a region, fostering the creation, growth, and scaling of new businesses, as well as economic, technological, and social development (Zahra & Hashai, 2022). While internationalization is being explored in relation to entrepreneurial ecosystems, a systematic approach to entrepreneurial internationalization remains unclear, especially concerning internationalization support ecosystems (ISE) and cross-border connections (Hemmert et al., 2019; Theodoraki & Catanzaro, 2021).

Specialized literature views entrepreneurial ecosystems as evolving domains crucial for business development, including policy, culture, human capital, finance, markets, support structures, entrepreneurial discovery processes, and local context (Ferreira, Fernandes & Veiga, 2023; O'Kane et al., 2021; Tekin, Ramandani & Dana, 2021). Universities play a pivotal role within these ecosystems, impacting various domains through knowledge spillover, academic spinoffs, cultural influence, and internationalization promotion, acting as a bridge between entrepreneurial and innovation ecosystems (Corsi et al., 2022; Johnson, Dahl & Mariussen, 2019; Civera, Meoli & Vismara, 2019).

2.3 Innovation Ecosystems

The concept of innovation ecosystems is closely tied to entrepreneurship, fostering collaborative arrangements for knowledge and technology exchange among various actors, including organizations, businesses, research centres, and policymakers (Tippmann et al., 2023; Costa, 2022; Gawel, 2021; Sekliuckiene, Sedziniauskiene & Vibury, 2016). These ecosystems encompass diverse domains such as science and technology, venture capital, innovative infrastructure, innovation demand, legislative framework, and human capital (Costa, 2022; Roig, Sun-Wang & Manfredi-Sánchez, 2020; Ray, Kathuria & Kumar, 2020; Odei & Stejskal, 2020; Rasmussen & Petersen, 2017; Prokopenko, Emerenko & Omelyanenko, 2014).

The triple helix framework, emphasizing collaboration between universities, industries, and government, is instrumental in driving innovation and economic development (Baier-Fuentes, Guerrero & Amorós, 2021; Sørensen & Hu, 2014). This model extends to include civil society as a fourth helix, influencing knowledge-based collaboration and open innovation

(Ikram, Su, Fiaz & Rehman, 2018; Distefano, Gambillara & Di Minin, 2016; Leydesdorff, 2012).

Similar to entrepreneurial ecosystems, innovation ecosystems also extend to the international arena, promoting cross-border collaboration for improved innovation and economic growth (Costa, 2022; Odei & Stejskal, 2020; Roig, Sun-Wang & Manfredi-Sánchez, 2020; Ray, Kathuria & Kumar, 2020). The internationalization-focused innovation ecosystem comprises four sub-domains: a) research and development ecosystems; b) value-chain innovation networks; c) international entrepreneurial networks; and d) international communities (Tippmann et al., 2023; Johnson, Dahl & Mariussen, 2019; Sekliuckiene, Sedziniauskiene & Viburys, 2016; Prokopenko, Emerenko & Omelyanenko, 2014). However, while internationalization is considered a form of innovation, it receives relatively less attention in the literature, demanding further exploration (Rasmussen & Petersen, 2017; Distefano, Gambillara & Di Minin, 2016; Thurner, Gershman & Roud, 2015).

The Triple and Quadruple Helix concepts offer valuable insights into global-scale innovation and collaboration, although the internationalization pattern remains insufficiently understood and necessitates more comprehensive research (Civera, Meoli & Vismara, 2019; Rasmussen & Petersen, 2017; Distefano, Gambillara & Di Minin, 2016; Thurner, Gershman & Roud, 2015; Sørensen & Hu, 2014).

2.4 Digital Platforms Ecosystems - DPEs

Digitalization is a key driver of globalization and international business expansion, enabling various actors from SMEs to MNEs to engage in cross-border transactions through innovative platform-based models (Brouthers, Chen, Li, Shaheer, 2022; Nambisan, Zahra & Luo, 2019; Yonatany, 2017). Digital Platform Ecosystems (DPEs) revolutionize business dynamics by fostering fluid collaboration and value creation across organizational and geographical boundaries (Kolagar et al., 2022; Ciasullo, Montera, Mercuri and Mugova, 2022).

These DPEs shift the focus from individual products to platforms, facilitating ubiquitous knowledge exchange and networking, redefining entrepreneurship in a digital sphere (Wentrup, Nakamura & Ström, 2020; Ray, Kathuria & Kumar, 2020). They transform local and international business ecosystems, challenging traditional theories of internationalization and fostering new forms of competitive advantage (Rong et al., 2018).

In this context, digital transition and platform-based models shape the very foundations of global entrepreneurship, influencing how businesses enter foreign markets and collaborate for value creation (Hewett et al., 2022; Ratten, 2021).

3 Methodology

The work was divided into two stages: A Systematic Literature Review (Denyer & Tranfield, 2009; Tranfield, Denyer & Smart, 2003) and a Thematic Analysis (Guest, MacQueen, & Namey, 2012; Boyatzis, 1998), in order to achieve a theoretical saturation capable of “linking similar concepts and processes in different stances, experiences, contexts and events” (Morse, 2018, p. 1398), providing collective insights and shared knowledge through theoretical synthesis in a pragmatic way (Van Aken, 2004). The research procedure is depicted in Figure 1:

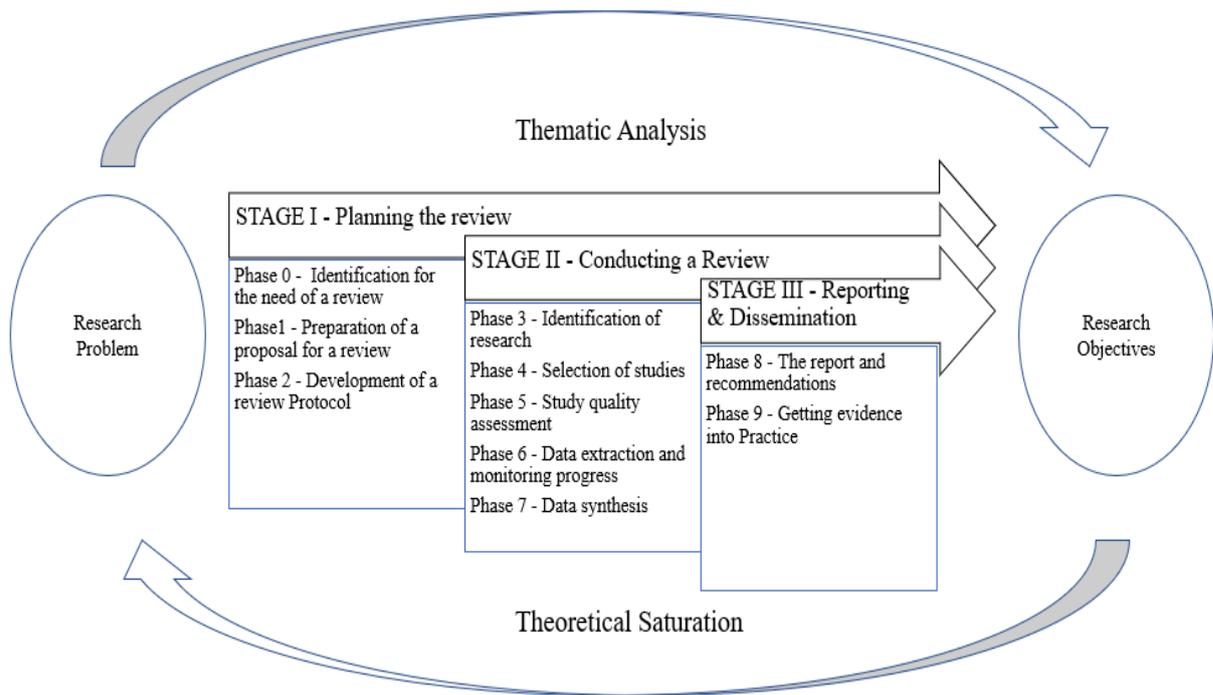


Figure 1

Research Procedure

Source: Adapted from Denyer & Tranfield, (2009) and Costa et al. (2022).

The SLR was carried out in order to identify in the current literature the different types of research and approaches taken to understand internationalization from an ecosystem perspective, in order to determine the dynamics, actors and specificities of such ecosystem. A search by topic was conducted on Science Direct, Scopus and Web of Science on June, 2022 and then again on January, 2023. Details about the research protocol can be seen on Table 1.

Table 1

Research Protocol

Protocol	Details
Database	Science Direct; Scopus; Web of Science
Search criteria	Article title, Abstract and Keywords
Keywords	Internationalization AND Ecosystem; Internationalization AND "Triple Helix"; Internationalization AND "Quadruple Helix"
Subject Area	Business Management and Accounting (Scopus and Science Direct); Economics, Econometrics and Finance (Scopus and Science Direct); Management (Web of Science); Economics (Web of Science)
Document Type	Peer Reviewed Articles only
Year	Open
Language	Any
Number of articles	134
Qualitative selection criteria	Articles focusing on internationalization and ecosystems, exploring, directly or indirectly, the internationalization conditions, drivers, strategies, operations or theoretical foundations .
Number of articles	67

Source: Elaborated by the authors.

The selection of relevant articles for this study involved analysing abstracts alongside defined criteria, focusing on structured meaning to identify patterns, tendencies, and gaps in the literature. A total of 67 articles were chosen and categorized for analysis.

Thematic Analysis was conducted based on a priori categories derived from the literature review data. This involved familiarization with the data, coding, pattern identification, theme definition, and synthesis of the research report. The resulting internationalization ecosystem framework, proposed as an adjustment to existing theory, aims to address the unique requirements of internationalization within various business ecosystems. This framework is developed from data to theory, offering insights for explaining and replicating the socio-economic and cultural impact of internationalization (Boyatzis, 1998; Gerring, 2001; Simba 2015; Wickert et al., 2021).

4 Results and Discussion

4.1 Internationalization Ecosystem

Research on international business (IB) has explored the dynamics of business ecosystems in foreign markets, emphasizing the need to adapt internationalization strategies (Ray, Kathuria & Kumar, 2020; Parente et al., 2019). However, existing classic theories offer a limited perspective on internationalization, failing to fully consider ecosystem dynamics, demand creation, digital ecosystems, disruptive models, and integration challenges Ray, Kathuria & Kumar, 2020; Nambisan, Zahra & Luo, 2019; Knight & Liesch, 2016).

Start-up studies often focus on geographic clusters, neglecting the potential of globally connected ecosystems, which offer competitive advantages through rapid growth and access to resources (Hemmert et al., 2019; Van Schijndel, 2019). Born globals, characterized by early internationalization, combine uncertain market conditions, technology, and entrepreneurial dispositions, lacking a clear focus on post-internationalization elements (Baier-Fuentes, Guerrero & Amorós, 2021; Fakhreldin, 2021; Velt, Torkkeli, & Saarenketo 2018).

Networking is crucial in the IB context, with the internationalization process relying on relationships and collaboration across domestic and foreign markets (Johanson & Vahlne, 2009). Ecosystems can provide competitive advantages in internationalization, but challenges include scalability, integration, reconfiguration, coordination, and policy guidelines (Tatarinov, Ambos and Tschang 2022; Rong, Kang & Williamson, 2022; Theodoraki & Catanzaro, 2021).

The idea of internationalization as a sub-ecosystem, termed internationalization support ecosystems, involves public and private actors working regionally for effective international integration (Theodoraki & Catanzaro, 2021; Luo, 2021). However, studies on internationalization ecosystems lack depth and understanding, particularly in relation to start-ups, born globals, early internationalization, and ecosystem integration challenges (Yonatany, 2017; Rasmussen & Petersen, 2017).

4.2 A framework proposal

The internationalization ecosystem framework proposed in the current study encompasses concepts of four interrelated ecosystems concepts: a) Business Ecosystems (the economic community supported by a foundation of collaborating organizations and individuals including traditional business models and industries, MNEs, and clusters); b) Entrepreneurial Ecosystems (specialised business ecosystems focused on the creation of innovative and high-growth new ventures, start-ups, scale-ups and other forms of non-traditional business models); c) Innovation Ecosystem (business and social ecosystems that involve actors beyond the economic sphere, focused on knowledge creation and exchange); and d) Platform Ecosystem (the digital business ecosystem, characterized by high technology, knowledge transfer and collaboration).

All those concepts are interrelated to some point and all those concepts also focus on internationalization as a necessary strategy for survival and growth. Thus, it is possible to argue

that the concept of internationalization ecosystems would encompass elements of all other ecosystems analysed, being a central connective idea. It is also possible to argue that based on the environment characteristics and interrelation amongst actors, every ecosystem is unique, but based on common characteristics found in the different ecosystems concepts, it is possible to suggest different types of ecosystems, all related to the internationalization process in a distinct way, as expressed in figure 2 and 3.

- 1 Internationalization Ecosystem
- 2 MNE/SME Integration Ecosystem
- 3 New Digital Business Ecosystem
- 4 Open Digital Innovation Ecosystem
- 5 TH Model and Variants Ecosystem
- 6 TH Model and Variants Ecosystem (focused on new business models)
- 7 Digital Business Ecosystem (focused on digitization and digital transition)
- 8 Digital TH Model and its Variants Ecosystem
- 9 Digital TH Model and its Variants Ecosystem (focused on traditional business models)

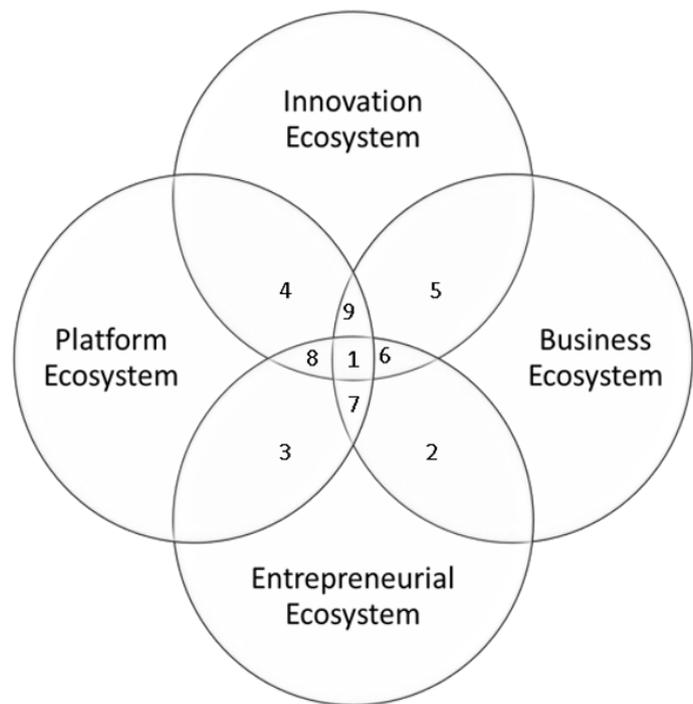
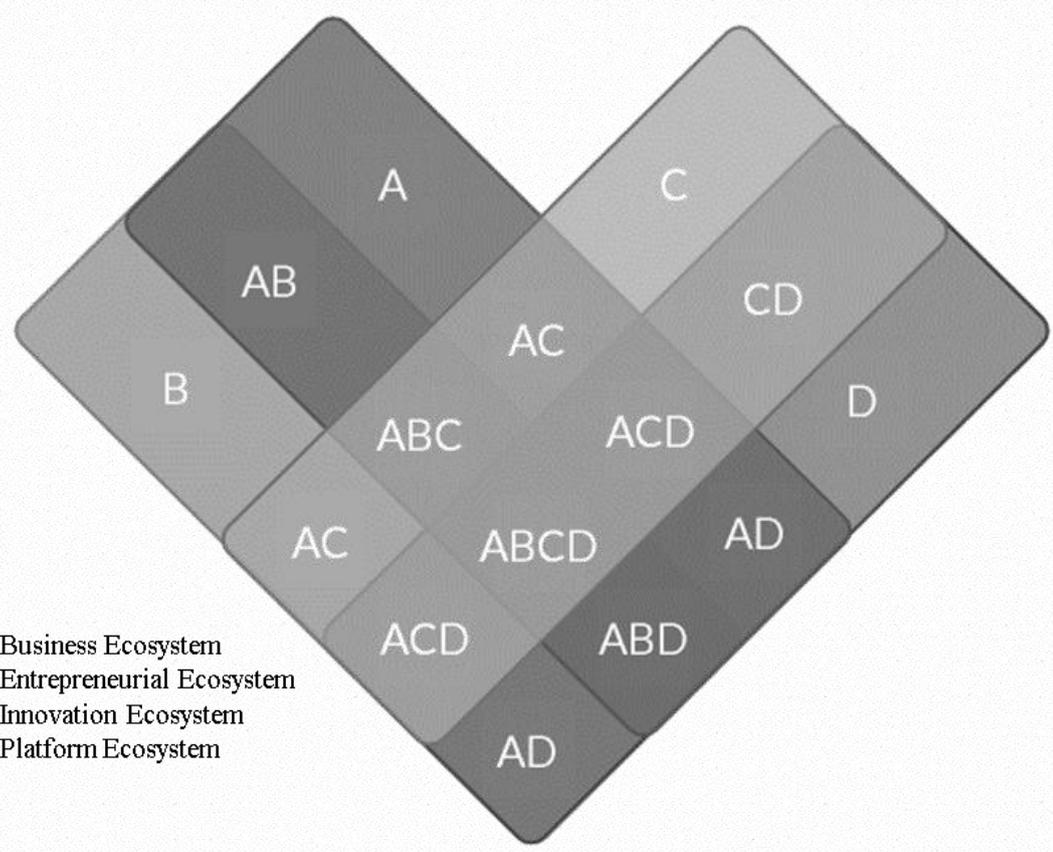


Figure 2
Internationalization Ecosystem Core Concept
 Source: Elaborated by the authors.

When placing the concept of internationalization ecosystem as a core and connective element within other ecosystems concepts, the authors seek to argue that internationalization may occur in different ways and scenarios, but the internationalization ecosystem, the environment that supports and promotes international expansion of its actors on many different levels, demands key characteristics of all four ecosystem concepts presented, as seen in Figure 3:



- A Business Ecosystem
- B Entrepreneurial Ecosystem
- C Innovation Ecosystem
- D Platform Ecosystem

Figure 3
Internationalization Ecosystem Framework
Source: Elaborated by the authors.

In Figure 3 it is presented an integration model of the different ecosystems. It is important to notice that the nodes presented only point out to the links with the most prominent interactions, seeking to explain the subtle differences that it is found in different ecosystems. However, as argued before, each ecosystem concept presented carry common characteristics and goals, and they are all connected through specific processes and initiatives such as networking, knowledge sharing, and internationalization. The details for each node are further presented in Table 2:

Table 2
Internationalization framework – key organizations per node

Node	Key Characteristics
AB	Traditional and Innovative business working in partnership for open innovation in order to address specific industry problems. Internationalization occurs mainly as a secondary factor.
AC	Traditional TH Model, internationalization is not a primary concern, but currently is growing in importance in the business literature.
AD	Traditional business models undergoing digital transition and digitization or integration into larger platforms. Internationalization is encouraged as a core strategy.
BC	Highly open and innovative organizations, working in partnership with local and international ecosystems. Internalization is perceived as central, but there is a lack of studies on its dynamics. This is the cradle of the born global firm.
BD	Disruptive digital business models, working in collaboration through platforms. Internationalization is a key aspect of its process.

- CD** HEIs, Spinoffs and other forms of organizations born and bred to produce disruptive business models in partnership with entrepreneurial universities and other supporting organizations. Internationalization is a key aspect of its process.
- ABC** Traditional TH Model and its variants, internationalization has become a central element.
- ACD** HEIs, Spinoffs and other forms of organizations working within clusters of traditional business. Internationalization may occur indirectly, but it is a central aspect of its ecosystem.
- ABD** Start-ups and scale-ups working in partnership with traditional investors seeking disruptive business models. Internationalization is a central aspect of its ecosystem dynamics.
- ABCD** Modern and dynamic ecosystems, based on open innovation, collaborative work and technology driven business models. Internationalization has become the most essential aspect of its nature, as it is essentially transnational.

Note: Elaborated by the authors.

Table 2 provides a systematic framework that categorizes different nodes within an internationalization context, offering insights into the varying characteristics and organizational dynamics associated with international business expansion. Each node represents a distinct configuration of business entities, ranging from traditional models to disruptive digital ecosystems, and highlights the role of internationalization within them.

5 Conclusions

The present work proposed a framework for a new business ecosystem concept – the internationalization ecosystem – in order to explain its nature, peculiarities and dynamics, seeking to integrate the framework into modern IB theories studies.

By means of a systematic literature review complemented by a thematic analysis, it becomes evident that despite the significance and substantial body of well-established research conducted within the realm of International Business (IB) theory and its associated domains over numerous decades, the conceptualization of an ecosystem-oriented framework remains at a nascent stage. This is underscored by the observation that the internationalization facet is commonly positioned as a sub-ecosystem component within diverse ecosystem paradigms, encompassing entrepreneurial ecosystems, business ecosystems, innovation ecosystems and platform ecosystems.

The thematic analysis of the studies' theoretical background has shown that the extant theories do not explain the internationalization ecosystem phenomenon. IB theories have not dived deeply into the internationalization ecosystem perspective yet, as it is perceived as a component of entrepreneurial ecosystems or innovation ecosystems, heavily influenced by digital technologies and platform ecosystems. As it is an ever-evolving theoretical and empirical phenomenon, internationalization is still open for new angles of interpretation, based on the constant socioeconomical, cultural and technological changes in the global arena.

The present study carries both theoretical and pragmatic significance. From a theoretical standpoint, it contends that a comprehensive understanding of internationalization requires an ecosystemic approach, rather than being relegated to a subsidiary or ancillary sub-ecosystem, as is often observed in extant scholarly investigations. By conceptualizing the internationalization ecosystem in its distinct entirety, the impetus for scholarly inquiries into ecosystem amalgamation and replication is propelled, a perspective that remains notably underrepresented within the prevailing International Business (IB) literature. This vantage point lays the groundwork for a prospective theoretical framework.

In terms of practical implications, this study furnishes a structured framework through which entities can position themselves predicated on their inherent objectives, dynamics, and interrelations. Notably beneficial for organizations oriented towards export-driven ventures, internationalization promotion, or Foreign Direct Investment (FDI) attraction, this framework

may facilitate comparative evaluations of performance across various strata of ecosystemic interactions. In doing so, these organizations can discern latent networking voids and avenues for collaboration, thereby augmenting the overall robustness of the business ecosystem.

Future enquiries ought to be directed towards unexplored themes evident within the current study's purview. Notably, investigation themes such as the study of Export Promotion Programs, alongside the intricate facets of ecosystems' internationalization and their subsequent replication—a conceptual and practical endeavour of discernible complexity. The conceptual framework introduced herein engenders novel avenues for future research objectives, particularly within the domain of the Triple Helix (TH) model and its conceptual variations. A focal point of such inquiries may entail an in-depth analysis of the orchestrated interplay amongst diverse helices, synergistically aligned to propel the process of internationalization. Furthermore, an imperative dimension for scholarly investigation resides in the meticulous scrutiny of diverse business ecosystems, aimed at the comprehensive assessment of the intricacies underscoring their respective internationalization trajectories. Such investigations stand to impart invaluable insights that may fortify and concretize the presently articulated framework.

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