

ACADEMIC ENTREPRENEURIAL IDENTITY

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ABSTRACT

This study aimed to understand and define the construct of Academic Entrepreneurial Identity (AEI), using a qualitative approach based on multiple case studies with in-depth interviews conducted with researchers involved in projects at different stages of technological maturity. The analysis, grounded in the Theory of Entrepreneurial Social Identity, revealed that AEI is a processual, relational, and dynamic phenomenon, comprising the dimensions of social motivation, self-evaluation, and frame of reference. It was found that transactional competence—the ability to move between academic and market domains—and the sense of belonging to the core academic group are fundamental elements for the formation and maintenance of this identity. The results indicate that the construction and negotiation of AEI occur over time and vary in intensity, reflecting both conflicts and synergies between academic and entrepreneurial centralities, depending on the stage of the project and the researchers' institutional context. This process results in an identity that is not static but dynamic, with the capacity for transactional adaptation across different contexts of action.

Keywords: Academic Entrepreneurial Identity; Academic Entrepreneurship; Entrepreneurial Identity; Social Identity Theory; Transitional Identity

INTRODUCTION

Academic entrepreneurship has been discussed at different levels of analysis and is traditionally classified into three main categories: systemic level (government, institutions, and local context), university level, and individual level (Rothaermel et al., 2007; Ferreira et al., 2016; Schmitz et al., 2017). Recent evidence points to a substantial increase in entrepreneurial activities within universities across various countries (Siegel & Wright, 2015; Hayter et al., 2018; Rodríguez-Aceves et al., 2024). In this context, the concept of academic entrepreneurship has been interpreted in multiple ways: some approaches link it directly to formal knowledge transfer activities such as patenting and the development of spin-offs (Franzoni & Lissoni, 2006; Rubini et al., 2021), while others associate it with informal activities, such as consulting and collaborative research with industry partners (Klofsten & Jones-Evans, 2000; Matricano et al., 2012). Still others adopt a broader perspective, recognizing academic entrepreneurship as encompassing initiatives such as introducing innovations in teaching (Etzkowitz & Leydesdorff, 2000; Audretsch et al., 2002) and research (Louis et al., 1989), which are often driven by academics' intrinsic motivations (Davey et al., 2016; Holley & Watson, 2017; Rodrigues, Ferreira & Felgueiras, 2019). Thus, the growth of academic entrepreneurship practices is closely related to the so-called third mission of academia, which aims to translate research results into products and services with socioeconomic impact (Nowotny, Scott & Gibbons, 2002; Karlsdottir et al., 2022; Lehmann, Otto & Wirsching, 2024).

Despite this relevance, the full scope of academic entrepreneurship studies lacks depth; most of the literature has focused on the first two levels, while research at the individual level still requires further theoretical and empirical development (Jain et al., 2009; Grimaldi et al., 2011; Yusof & Jain, 2010; Neves & Brito, 2020; Perkmann et al., 2021; Bordean et al., 2024; Melo Filho et al., 2025). This field concerns the academic as an entrepreneurial agent, which includes how the individual develops new ideas, innovations, and collaborations within academia and towards the market.

Consequently, expectations surrounding the researcher who undertakes entrepreneurial activity have grown in recent years, beyond their primary teaching and research functions (Davey et al., 2016; Holley & Watson, 2017; Rodrigues, Ferreira & Felgueiras, 2019; Mäkinen & Esko, 2022). Driven by the increasing demand for innovation and economic development arising from universities, these academics are encouraged to assume leadership and innovation roles, managing research projects, establishing collaborations with public or private sectors, and seeking the practical application of their knowledge for economic and/or social benefit (Urban & Gamata, 2020; Hamdoun, 2021; Burkholder & Hulsink, 2022; Mukhopadhyay, 2023; Chavali & Rath, 2024).

Studies on academic entrepreneurs have already demonstrated the identity conflict that occurs between academic and entrepreneurial identities (Zuo et al., 2019; Guo et al., 2020; Shi et al., 2021; Mäkinen & Esko, 2022; Majoor-Kozlinska et al., 2024; Choi et al., 2024). It has also been observed that the perception of social identity continuity, specifically belonging to the group, positively influences the transition between academic and entrepreneurial identities (Zou et al., 2019; Shi et al., 2021; Melo Filho et al., 2025).

Nevertheless, despite the importance of the entrepreneurial researcher for achieving institutional objectives, existing studies are often limited to describing and assessing the factors that foster or hinder the development of this entrepreneurial identity. Few have undertaken an empirical theoretical construction (Melo Filho et al., 2025) for the academic entrepreneur's identity. Although there are studies addressing aspects such as profiles (Rodrigues, Ferreira & Felgueiras, 2019), classifications of academic entrepreneurial behavior (Holley & Watson, 2017), or theoretical propositions based on literature reviews (Melo Filho et al., 2025), these works have not advanced toward building a theory grounded in the entrepreneurial social identity background (Fauchart & Gruber, 2011), which explores the individual's social-cognitive scope in three dimensions: motivation, self-evaluation, and frame of reference, intersecting with contextual factors specific to the academic environment. Melo Filho et al. (2025) attempt to position themselves in this direction; however, they do not provide a clear definition of the construct of academic entrepreneurial identity, although they raise relevant dimensions that can assist in empirically defining this construct and outlining its different types. Thus, this work aims, in light of entrepreneurial social identity theory (Fauchart & Gruber, 2011), to understand whether there is an academic entrepreneurial social identity and to characterize its different types.

Accordingly, it is important to clarify that this study adopts the understanding that runs counter to the idea of merging academic and entrepreneurial identities. While both roles may coexist, they are distinct, with academic identity as the central and most salient identity (Wang et al., 2021; Hayter et al., 2021; Giuntia & Duberley, 2023; Melo Filho et al., 2025). Moreover, it is understood that restricting the concept of academic entrepreneurship would be a limiting factor in this study. Therefore, this work adopts the broadest definition of an academic entrepreneur, encompassing those who participate in the creation of spin-offs, industry collaboration, patent registration, research project management, and those who assume leadership and innovation roles within academia (Etzkowitz & Leydesdorff, 2000; Audretsch et al., 2002; Davey et al., 2016; Holley & Watson, 2017; Rodrigues, Ferreira & Felgueiras, 2019; Urban & Gamata, 2020; Hamdoun, 2021; Burkholder & Hulsink, 2022; Mukhopadhyay, 2023; Chavali & Rath, 2024).

Based on this, the following research question is posed: What is the identity of the academic entrepreneur? To address this question, the study aims to understand what constitutes

the identity of the academic entrepreneur. To achieve this goal, it is necessary to better understand the individual characteristics and variables that in some way affect the academic entrepreneur's identity. For this, a qualitative theory-building multiple case study approach is adopted (Eisenhardt, 1989, 1991, 2007; Strauss & Corbin, 1998), which allows the construction of emergent theories from diverse data and is particularly useful in research areas where theoretical foundations are still fragmented or nonexistent (Miles & Huberman, 1994; Edmondson & McManus, 2007; Yin, 2009; Christensen & Carlile, 2009; Gehman et al., 2018). This approach has already been applied in studies on innovation (Gomes et al., 2022), entrepreneurial ecosystems (Gomes et al., 2018), and organizational change (Ponte & Sturgeon, 2017), where dynamic conditions require deep exploration before generalizable conclusions. Data were collected through in-depth interviews and analyzed using both deductive and inductive content analysis, ensuring the rigor of the employed method (Eisenhardt, 2021).

From a theoretical perspective, this article seeks to contribute to the consolidation of the academic entrepreneur identity construct, through conceptual definition and the systematization of its typologies. By establishing more precise criteria for identifying different profiles of entrepreneurial activity in academia, this study intends to fill gaps in the literature regarding academic entrepreneurship at the individual level. In practical terms, the results aim to support the development of diagnostic instruments capable of improving the selection and allocation of resources in research projects with an entrepreneurial focus.

Finally, in addition to this introduction, the article is organized into four further sections. The following section addresses the theoretical framework, the third section covers the methodological approach, the fourth discusses the analysis of results and future research agenda, and the fifth presents final reflections on the findings, contributions, and limitations..

2 THEORETICAL FRAMEWORK

2.1 Academic Entrepreneurship

Aiming to foster development, innovation, and social and economic impact (Simeone et al., 2018), universities have increasingly adopted entrepreneurial pathways. This movement has consolidated their role as important agents of entrepreneurial activity (Etzkowitz, 2001). Within these institutions, academics play a central role, becoming ever more relevant in building a knowledge-based society (Etzkowitz, 2001; Davey et al., 2016; Klofsten & Jones-Evans, 2000).

Although university involvement in academic entrepreneurial activities is on the rise, there is still imprecise application of the term "entrepreneurship" in this context (Rothaermel et al., 2007). This lack of a clear definition contributes to controversies within academia, hindering acceptance and posing a challenge to the consolidation of entrepreneurial activities (Audretsch et al., 2002).

A narrower view of the phenomenon of academic entrepreneurship associates it directly with the commercialization of intellectual property generated by universities. From this perspective, it manifests through the creation of university spin-offs (Meyer, 2003) and academic startups, aiming to transform knowledge into innovative ventures. This approach emphasizes the importance of academic entrepreneurship as a strategy to strengthen national competitiveness (McMullan & Vesper, 1987) and drive innovation (Lam, 2005).

Conversely, in a broader definition, academic entrepreneurship is used to express a wider set of actions related to knowledge transfer. This includes, for example, academics' engagement in entrepreneurial activities that go beyond routine tasks, such as modeling

innovations in teaching and research, as well as exercising leadership in research projects (Etzkowitz & Leydesdorff, 2000; Louis et al., 1989).

It is important to highlight that other conceptual approaches exist. In this context, researchers who participate in entrepreneurship-focused calls for proposals and seek funding to develop their research are included (Aguero et al., 2011). These definitions recognize the dynamic environment of academic entrepreneurship and the heterogeneity of academics and their diverse motivations for engaging in entrepreneurial activities (Davey et al., 2016). This study adopts the broader approach, which considers the various entrepreneurial avenues open to academics, as it is comprehensive enough to capture the wide range of variables that drive researchers to undertake entrepreneurship within universities (Melo Filho et al., 2025).

It is possible to identify four main motivations that drive academics to engage in entrepreneurship based on their research: commercialization (commercial exploitation of generated knowledge); learning (through engagement in industrial activities and partnerships with other researchers); access to funding (mainly from public sources); and, finally, access to resources, such as equipment, materials, or data (D'Este & Perkmann, 2011).

In addition to these individual motivations, the networks in which academics are embedded play a significant role in the development of commercial activities. These networks can facilitate access to partners, investors, and market opportunities, amplifying the impact of entrepreneurial initiatives (Pugh et al., 2018). Considering academic entrepreneurship as a social and context-dependent process, institutional determinants are also crucial, and may both encourage and restrict these activities (Davey et al., 2016).

Beyond contextual factors, the individual characteristics of each actor and the nature of their interactions are key variables in determining the success or failure of academic engagement in entrepreneurial activities. In this sense, the emergence of an entrepreneurial university presupposes the promotion of an entrepreneurial culture within the institution, so that entrepreneurial actions become part of its institutional mission, going beyond applied sciences and encompassing all fields of knowledge (Etzkowitz, 2001; O'Shea et al., 2007; Davey et al., 2016).

However, there are several barriers to academic entrepreneurship. Among them are: cultural resistance within universities, which still prioritize traditional research over innovation and the commercialization of knowledge (Ahmad, Halim & Ramayah, 2016); lack of institutional incentives, including inadequate policies and support structures for the development of academic startups and partnerships with the productive sector (Jisheng & Saeed, 2020); scarcity of funding, which makes it difficult to transform research into marketable products or services (Kotov, 2015); excessive bureaucracy, which makes technology transfer and licensing processes slower and more complex (Cantaragiu, 2012); and limitations in researchers' training, as many lack management and business education, hindering the transition from academia to the market (Srinivas, 2016). In summary, barriers to academic entrepreneurship reflect an ecosystem still not fully conducive to innovation, marked by cultural, institutional, financial, bureaucratic, and training constraints. These obstacles hinder the consolidation of an entrepreneurial culture in universities and compromise the capacity to transform scientific knowledge into applied solutions with societal impact.

Despite the factors that encourage academic entrepreneurship and the aforementioned barriers, the decision to engage in entrepreneurship rests with the individual. In this sense,

academics who are more willing to embrace the entrepreneurial culture implemented by universities tend to become more involved in entrepreneurial practices (Grimaldi et al., 2011). Some of the variables that distinguish academics who undertake entrepreneurial activity from those who do not can be explained by Social Identity Theory. This theory can help interpret social situations and behaviors (Tajfel & Turner, 1979; Brewer & Miller, 1996), such as decisions related to markets, client needs, and the use of resources (Fauchart & Gruber, 2011).

2.1.2 Fundamental Processes of Social Identity Theory

Social Identity Theory (SIT), proposed by Tajfel and Turner (1971, 1979), constitutes one of the paradigms of social psychology for explaining intergroup behavior. The authors present SIT through three pillars: social categorization, social identification, and social comparison, unfolding their underlying mechanisms and implications for self-esteem, group cohesion, and discrimination, ultimately leading to intragroup categorization (Ferguson, 2011).

Social categorization refers to the tendency of individuals to classify themselves and others into distinct social groups. This process is cognitive and automatic, facilitating the simplification of the social environment by reducing interpersonal complexity. According to Tajfel and Turner (1979), categorization increases the salience of distinctions between "us" (ingroup) and "them" (outgroup), which leads to accentuating intragroup similarities and intergroup differences. This effect is documented in classic experiments and current replications (Khadka, 2024).

Identification occurs when an individual internalizes their affiliation to a group as an essential part of their self-concept. This process strengthens the affective bond with the group and also influences behaviors, values, and self-esteem. Thus, the more an individual identifies with a group, the more likely they are to act in accordance with group norms (Reimer et al., 2022). Identification is also sensitive to the social context and may vary depending on the situation.

Finally, after categorization and identification, individuals seek to positively value their ingroup through comparisons with external groups. The central motivation is to maintain a positive social identity, which can occur even in the absence of direct rivalry. Such comparisons often result in ingroup favoritism bias and discriminatory attitudes toward outgroups (Ferguson, 2011).

The Entrepreneurial Social Identity Theory (ESIT) (Fauchart & Gruber, 2011) is a contextualized application of SIT to the phenomenon of entrepreneurship. It shares SIT's foundations—categorization, identification, and comparison—while incorporating psychological dimensions specific to entrepreneurial practice, such as social motivation, self-evaluation, and frame of reference, which align with the core processes of SIT.

2.1.3 Academic Entrepreneurial Identity

Since social identity is the construct through which individuals interpret social situations and behaviors (Tajfel & Turner, 1979), the study of academic entrepreneurial identity becomes pertinent, contributing to the understanding of their motivations, self-evaluation, and frame of reference (Fauchart & Gruber, 2011). According to Social Identity Theory (SIT), individuals internalize group identities as part of their self-concept, which influences their attitudes, aspirations, and behaviors (Reimer et al., 2022; Khadka, 2024). Thus, Entrepreneurial Social Identity Theory (ESIT) emerges as a contextual application of SIT, proposing that belonging to the group of academic entrepreneurs activates specific identity dimensions, such as social motivation (belonging and recognition), frame of reference (group values and norms), and self-

evaluation (perceived capacity to be a legitimate entrepreneur) (Ferguson, 2011; Fauchart & Gruber, 2011).

Entrepreneurial identity refers to the set of beliefs, values, and behaviors that define how individuals perceive themselves as entrepreneurs (Down & Warren, 2008). In the academic context, this involves the intersection between the traditional role of knowledge production and the expectations of practical application of this knowledge, often associated with the creation of startups, patents, consulting, or leadership in projects (Melo Filho et al., 2025). This tension is central to understanding how academics construct their entrepreneurial identity (Zuo et al., 2019; Guo et al., 2020; Shi et al., 2021; Mäkinen & Esko, 2022; Majoor-Kozlinska et al., 2024; Choi et al., 2024).

According to SIT, processes of social categorization influence how academics come to see themselves as “academic entrepreneurs” in contrast to “traditional academics.” Social identification, in turn, contributes to internalizing the norms, values, and expectations associated with the entrepreneurial group, which can manifest as motivation to generate social or commercial impact from research. Finally, social comparison—a core pillar of SIT—is expressed in ESIT through the ongoing evaluation that individuals make between themselves and their peers, both academic and entrepreneurial, in order to legitimize their trajectory and competencies (Ferguson, 2011; Fauchart & Gruber, 2011; Reimer et al., 2022; Khadka, 2024).

In the academic environment, some studies indicate that academic identity is central for individuals, rooted in the mission to teach, research, and publish (Zuo et al., 2019; Guo et al., 2020; Melo Filho et al., 2025). However, there is a convergent rise among society, government, university, and industry (Etzkowitz, 2003) that seeks to reconfigure the role of the academic, inducing them to adopt entrepreneurial practices so that their research extends beyond university walls and generates social and economic impact (Geels, 2011).

For some academics, entrepreneurship may be seen as a natural extension of their passion (Munierks et al., 2014) for innovation and social impact (Fauchart & Gruber, 2011), while others may resist this transition, perceiving it as a threat to their authenticity or intellectual autonomy (Kempster et al., 2019). Thus, institutional and cultural policies also play a relevant role: environments that foster an entrepreneurial culture tend to facilitate the salience of entrepreneurial identity, while more conservative institutions may act as inhibitors (Rasmussen & Wright, 2015).

It is worth noting that academic entrepreneurial identity should not be seen solely as an individual phenomenon, but also as a collective one. Group narratives and collaborative practices serve as mechanisms for reinforcing identity—a point highlighted in SIT—allowing academic networks to strengthen the legitimation of entrepreneurship as part of professional identity (Anderson & Jack, 2002). Even so, this identity is not fixed; it is dynamic, relational, and situated, shaped by contextual, cultural, and organizational factors (Hayter et al., 2021; Melo Filho et al., 2025). Such influences can generate identity conflicts, especially when trying to balance commitment to traditional academia with the demands of a market-oriented environment (Zuo et al., 2019; Guo et al., 2020).

2.1.4 Transactionality and the Perception of Group Continuity

Thus, it is understood that although both roles (academic and entrepreneurial) can coexist, they are distinct, with academic identity being the central and most salient identity.

In a context of constant social change, academics face increasing demands that drive them to develop impactful solutions for society, leading them to adapt their professional

identities to institutional and contextual requirements (Melo Filho et al., 2025). In this process, individual agency plays a central role in the construction of reflexive identities, as highlighted by Giddens (1991). The perspective of transactionality complements this analysis by highlighting the coexistence and alternation between multiple identities, enabling academics to respond strategically to factors such as funding calls, institutional policies, and market demands (Nielsen & Gartner, 2017; Guo et al., 2019; Hayter et al., 2021; Fenters et al., 2025).

However, this transactionality between identities is only viable due to the perception of belonging to a reference group (Tajfel & Turner, 1979; Sani et al., 2007; Smeekes & Verkuyten, 2017; Guo et al., 2019). This connection with the original group provides psychological security and legitimacy for academics to explore new roles without compromising their central identity. Thus, even in dynamic environments, academics are able to maintain a sense of continuity (Zou et al., 2018), which helps them avoid feelings of alienation or disorientation during transitions between different roles (Melo Filho et al., 2025).

In this direction, Melo Filho et al. (2025) propose a new theoretical construct called Liquid Academic Entrepreneurial Identity, which recontextualizes the dimensions of Fauchart and Gruber (2011):

Basic Social Motivation: Academic entrepreneurs are driven both by the desire to contribute to the advancement of knowledge and by the practical impact of their research. This duality reflects the tension between the traditional values of academia and the demands of the entrepreneurial ecosystem.

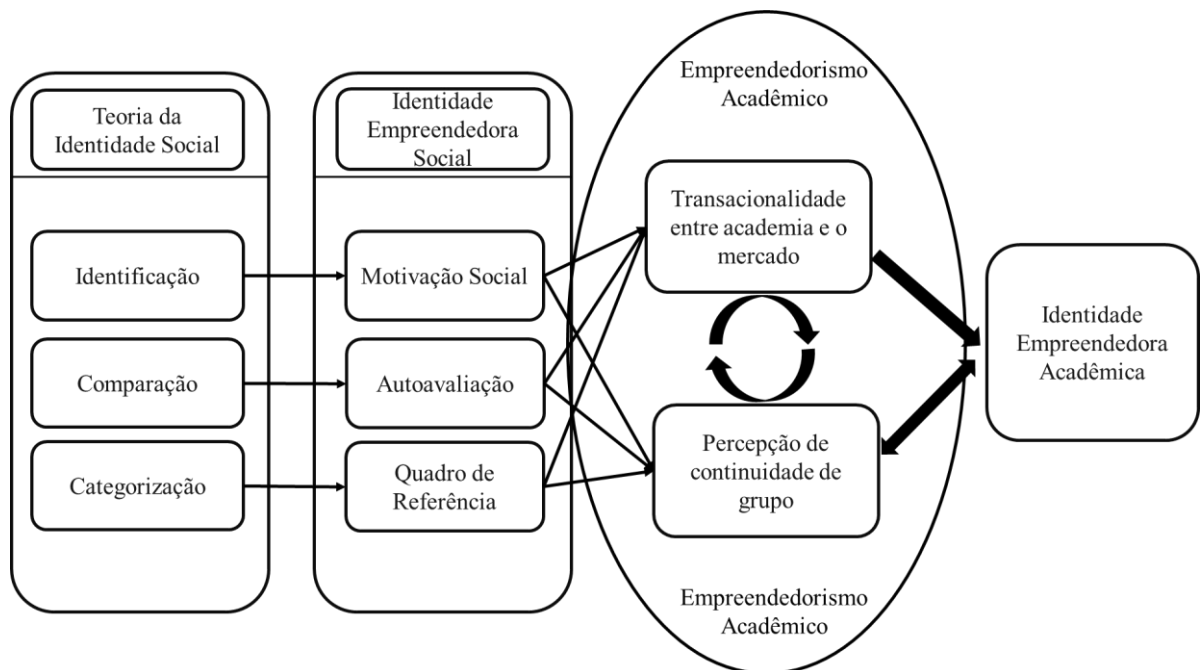
Continuous Self-Evaluation: Academics are constantly assessing their performance based on academic metrics (such as publications and citations) and market metrics (such as patents and startups). This ongoing assessment is crucial for balancing institutional expectations and external demands.

Frame of Reference: They navigate between different evaluation systems, adjusting to institutional expectations and market demands. This ability to move between distinct frames of reference is fundamental for constructing a flexible and adaptable identity.

Although Melo Filho et al. (2025) did not manage to fully define the construct of academic entrepreneurial identity or its possible developments, their study supports the idea that academic entrepreneurial identity is continuously constructed and reconstructed, in a process that reflects both external pressures and individual choices. This perspective aligns with the works of Ebaugh (1988) and Petriglieri (2011), which emphasize the importance of personal and collective narratives in the construction of professional identities. This suggests that it can be understood as a continuous narrative of adaptation and reinvention, mediated by both contextual factors and individual reflexive processes (Zuo et al., 2019; Guo et al., 2020; Melo Filho et al., 2025).

Given the above, this study develops the following theoretical framework for understanding academic entrepreneurial identity:

Figure 1 – Theoretical Framework of Academic Entrepreneurial Identity



Source: Prepared by the authors

It can be observed that, according to the proposed framework, the Theory of Entrepreneurial Social Identity (Fauchart & Gruber, 2011) provides the theoretical foundation by identifying three dimensions that structure entrepreneurial social identity: basic social motivation, frame of reference, and self-evaluation. These dimensions are related to transactionality between the market and academia, and are supported by the perception of maintaining core group identity. Based on this, the following premises are established.

Basic social motivation refers to the collective goals and values that drive academics to engage in entrepreneurship, which may encompass both the desire to generate social impact and the pursuit of prestige and recognition (Melo Filho et al., 2025). In the context of academic entrepreneurial identity, this motivation is neither homogeneous nor static, but regulated by the capacity to transition between different spheres of activity, both scientific and market-oriented. Thus, transactionality emerges as an operational factor, enabling academics to adjust their behavior and motivation according to context, without compromising their legitimacy in either domain (Melo Filho et al., 2025; Guo et al., 2020).

The frame of reference, in turn, represents the internalized values, norms, and criteria that individuals use to make decisions and evaluate behaviors. In this way, an academic who also assumes the role of entrepreneur frequently navigates between divergent institutional logics: on one hand, the science and public mission of the university; on the other, the market logic of practical application and competitiveness (Etzkowitz, 2003; Rasmussen & Wright, 2015). Here, transactionality facilitates alternation between these frameworks, such that the perception of continuity of group identity, the sense of belonging, and psychological stability in relation to the academic group act as a stabilizing effect. This prevents abrupt identity ruptures, allowing the incorporation of new frames of reference without alienating the core identity (Sani et al., 2007; Zou et al., 2018; Melo Filho et al., 2025).

On the other hand, the self-evaluation dimension concerns how academics judge their legitimacy and performance according to both traditional criteria (such as publications and citations) and market-oriented criteria (such as patents, startups, and project leadership). This process aligns with the pillar of social comparison from Social Identity Theory, where the individual seeks to maintain a positive social identity by evaluating their group's performance in relation to others (Tajfel & Turner, 1979; Ferguson, 2011). By alternating between different sets of metrics, the academic must maintain internal coherence and self-esteem, which is only possible through a stable identity base. The perception of continuity of group identity provides this base, serving as a buffer against identity fragmentation in highly mutable contexts (Zuo et al., 2019; Hayter et al., 2021).

In summary, transactionality operates as the behavioral competence that enables fluidity across domains, while the perception of group continuity acts as the affective-cognitive component that preserves identity cohesion over time. Both are necessary and complementary conditions for the dimensions of ESIT—social motivation, self-evaluation, and frame of reference—to be activated and sustained within the academic environment.

3 METHODOLOGY

Given the nature of the research objective (defining the construct of academic entrepreneurial identity) and the absence of primary data and theoretical work on the categorization of academic entrepreneurial identity (Melo Filho et al., 2025), a qualitative approach was adopted to build a theoretical construct (Edmondson & McManus, 2007; Gehman et al., 2018; Strauss & Corbin, 1998) and further elaborate it (Fisher & Aguinis, 2017). The adoption of a qualitative approach in this study is inspired by the methodological design of Gomes et al. (2024), and is appropriate here, as the work seeks to add a new construct—the academic entrepreneurial social identity—to the existing entrepreneurial social identity theory, in line with Eisenhardt (2021). Although there are other academic studies on aspects related to academic entrepreneurial identity, they have not advanced towards the definition and characterization of this identity (CITE THESE STUDIES). Thus, a multiple case study method was employed with two objectives: to construct and elaborate a new construct (Alvesson & Sandberg, 2020).

3.1 Research Design

The process of theory building and elaboration enables the discovery of new concepts and the identification of how academics construct and understand their experiences (Alvesson & Sandberg, 2020). Additionally, the strategy of employing multiple cases is adopted, as this approach is perceived to generate a more cohesive, robust, and parsimonious emergent theory compared to the lens of single cases (Eisenhardt & Graebner, 2007). It is important to emphasize that this research takes the individual as the unit of analysis; thus, comparisons between cases occur at the individual level. This represents an adaptation from prior multiple case studies that focus on organizations or environments, but does not result in any loss of scientific robustness (Stake, 2006), as already demonstrated in different contexts (Yadav & Goyal, 2015; Lopes & Teixeira, 2024). This approach is consistent with the logic of replication described by Eisenhardt (1989), where each case is treated as an independent experiment, enabling comparisons. Finally, the study explores how academics build their entrepreneurial identity—whether it aligns with traditional identity types under entrepreneurial social identity theory (Fauchart & Gruber, 2011), or whether contextual forces shape a different identity construct (Melo Filho et al., 2025).

Consistent with other qualitative studies on academic entrepreneurial identity (Jain et al., 2009; Guo et al., 2019; Zou et al., 2019; Hayter et al., 2021), our research subjects are individuals who, through research or activities within universities, have developed or are

developing an entrepreneurial project. These academic entrepreneurs are often induced to start their projects due to research gaps, funding calls, societal demands, or innovation networks (Mueller & Conway, 2013; Bednarikova et al., 2020; Corrêa et al., 2021; Al Haddad et al., 2021; Melo Filho et al., 2025). Exposed to these and other institutional factors, these individuals tend to begin constructing their entrepreneurial identity through their participation in the development journey of a product or service—a process in which identity conflicts may arise (Perkmann et al., 2013; Zou et al., 2019) and the management of these identities (Hayter et al., 2021), as well as the perception of continuity of group identity (Zou et al., 2019), contribute to value creation processes, for example, by implementing radical innovation.

To select the sample of researchers, we followed a structured process based on theoretical sampling (Eisenhardt, 2021). Thus, cases were selected according to the presence of the phenomenon of interest (academic entrepreneurship). For this, the characterization of cases was based on individuals at different stages of involvement in academic entrepreneurship: those with entrepreneurial intention, developing their products or services classified at TRL 1–6, focused on validation and prototype development (Group A), and those developing products or services at TRL 7–9, dedicated to commercialization and market innovation (Group B). This choice of contrasting samples is aligned with Eisenhardt's (1989) logic of theoretical sampling, which seeks to explore significant variation to identify recurring patterns and structural differences. These criteria allowed for the generation of an initial list of seven researchers.

3.2 Data Collection

The study data were collected from multiple sources: (1) archival materials (calls for proposals promoting academic entrepreneurship, social media, news articles, previous interviews), (2) participation in events promoting academic entrepreneurship (DeepTech Summit, green innovation networks, and other academic entrepreneurship events), (3) interviews with other informed sources, such as industry experts and consultants, and (4) on-site observation. Primary data were obtained through semi-structured interviews with individuals who have experienced, or are currently experiencing, through their research, the development of products or services or who are carrying out stages of this development. Here, we combined retrospective (more comprehensive) and longitudinal (more precise) interview data (Eisenhardt et al., 2016; Eisenhardt, 2021).

To this end, an interview protocol and a research summary were prepared to clearly communicate the study objectives to potential interviewees in a timely manner. Data collection was initiated using sampling aligned with the theoretical purpose, intentionally and by participant convenience: data collection was guided by the emergence of new or potential theoretical insights in our data analysis (Naeem et al., 2024). Interviews ranged from 42 minutes to 1 hour and 47 minutes, with an average duration of approximately 1 hour and 8 minutes per interview. A hybrid approach was adopted for conducting the interviews, which could be held in person or virtually, depending on interviewee availability. Table 1 presents the TRL level of the interviewees' projects and a summary of the interviews.

ID	Área	IES	TRL	Resumo
E1	Health	UNIFOR	7 to 9	The interviewee has developed an entrepreneurial vision, seeking to “give a market face” to their products and connect them with companies. They recognize the importance of engaging in dialogue with businesses, despite not being familiar with market language.

E2	IoT	UNIFOR	4 to 6	The interviewee acknowledges having an “entrepreneurial streak that is not yet fully developed” and notes that the university seeks out success cases. They believe that Brazilian researchers need to handle multiple activities and that education in innovation is important for engaging clients and analyzing products in the market. They also recognize the conflict between the rigor of research and the speed required in entrepreneurship
E3	Promotion of Entrepreneurial Culture	PUC	7 to 9	The interviewee seeks to use their knowledge and skills both in academia and in the market to generate value and transform society, with a strong purpose of changing the entrepreneurial culture in Brazil..
E4	Automation	UFMS	7 to 9	The interviewee has a strong tendency toward entrepreneurship, motivated by the desire to solve environmental problems; however, their motivation is also that these products can generate profits.
E5	Health	UFC	4 to 6	The interviewee prioritizes knowledge generation and solving social problems, seeking research gaps that can benefit society. They are also aware of their limitations and prefer to focus on the scientific aspects of the project.
E6	Design	UNIFOR	4 to 6	The interviewee uses their knowledge to create impactful, problem-solving solutions, but without focusing on entrepreneurship. Their motivation lies in solving problems and seeing their projects come to life, without the ambition to become a financially successful entrepreneur.
E7	Biotechnology	UnB	7 to 9	The interviewee has a solid background in research and development of biotechnological products, with an emphasis on biosensors and agricultural pesticides. Their main motivation is to produce knowledge and innovation, regardless of the sector (public or private), standing out for their pursuit of multidisciplinary solutions and involvement in highly complex technical projects
E8	Health	UECE	4 to 6	The interviewee works in the development of pharmaceuticals, especially anxiolytics, using regional natural products and prioritizing practical feasibility and the local production chain. They are strongly motivated for their research to result in applicable products, preferably phytotherapeutics, due to the regulatory advantages compared to industrial pharmaceuticals.
E9	Biosensors	UECE	4 to 6	The interviewee has experience in multidisciplinary research, with an emphasis on the development of biosensors and agricultural pesticides. They demonstrate a strong orientation toward innovation and scientific production but acknowledge difficulties in technology transfer due to a lack of interested entrepreneurs and funding limitations.
E10	Biotechnology/ Food/Health	UECE	7 to 9	The interviewee works on the development of bioproducts derived from powdered coconut water, with applications in health (such as healing and moisturizing products) and food. She highlights the importance of institutional alliances, collaborative networks, and participation in interdisciplinary

Fonte: Elaborado pelo autor (2025).

3.3 Data Analysis

In accordance with qualitative research guidelines, an iterative data analysis process was adopted (Denis et al., 2011; Patton, 2002; Gomes et al., 2024), in which different techniques (coding, thematization, categorization, and case comparison) were combined to unpack the temporal process by which academic entrepreneurial identity unfolds into a new theoretical construct. To develop the narrative described in this research, the data were initially coded inductively and then deductively (Eisenhardt, 1989; Eisenhardt et al., 2016), thus imparting greater scientific rigor to the analysis.

Two rounds of coding were conducted. The first stage of the process involved understanding and organizing the information in layers: each interview was first analyzed in its entirety, after which the most relevant context units related to the dimensions of entrepreneurial social identity (Fauchart & Gruber, 2011)—motivation, self-evaluation, and frame of reference—were identified for each participant. Next, the different aspects were associated to develop a complete description of each case studied, and a fundamental analysis was conducted to identify the main challenges and problems related to the construction of academic entrepreneurial identity and the implementation of projects arising from research. Following the approach of Strauss and Corbin (1998), initial inductive codes were created, with margin notes to identify potential categories; subsequently, these were confronted with deductive codes derived from the literature to ensure greater analytical rigor (rounds 1 and 2). Moreover, throughout the analysis, the most current theories and literature were reviewed to increase understanding of the phenomenon, distinguishing what is already known (what research explains) from what emerges newly from the field compared to the literature, thus opening new research gaps.

Subsequently, differences and similarities between the groups of researchers were analyzed to mitigate potential inconsistencies related to topics differentiated at the outset, by means of the TRL of their projects: classified as TRL 4–6, focused on validation and prototype development (Group A), and TRL 7–9, dedicated to commercialization and market innovation (Group B), following Eisenhardt (1989) and Miles and Huberman (1994). Finally, theory building (Eisenhardt et al., 2016), theory elaboration (Fisher & Aguinis, 2017), and comparison (Eisenhardt, 2021) were employed. While some themes emerged as new patterns, others corresponded to the elaboration and refinement of previous concepts, to which new resources were added, developing theoretical arguments and structures to explain how the dimensions of Fauchart & Gruber (2011) contribute to interpreting this identity and how academics perceive the construction of their academic entrepreneurial identity.

Thus, data analysis followed an iterative process, combining inductive coding (emerging from raw data) and deductive coding (confronted with concepts from the literature, such as the dimensions of ESIT). We conducted analyses within each case and, crucially, comparative analyses between cases to refine the construct and identify possible typologies. This iterative and comparative process, aligned with theory building from cases, allowed us to construct the empirical theory of Academic Entrepreneurial Identity, defining and systematizing its manifestations. While studies such as Rossetto et al. (2023) for CIF, Cahen et al. (2025) for

GDC, and Suter et al. (2021) for CSI used their exploratory/qualitative phases to support the development and quantitative validation of scales to measure their constructs, our study employs the qualitative multiple-case approach and inductive/deductive analysis as the central method to itself construct the theoretical definition and systematize the typologies of the Academic Entrepreneurial Identity construct. We sought methodological rigor through the iterative process, data triangulation, and comparative analysis, validating the emergence of the construct from empirical data in dialogue with entrepreneurial social identity theory.

RESULTS ANALYSIS

Intragroup Analysis: TRL 4 to 6

The category Temporality and Entrepreneurial Intention has 24 occurrences within the group of researchers at TRL levels 4 to 6. In this context, it is observed that interviewees are still evaluating the right moment to undertake entrepreneurial activities or link their entrepreneurial actions to external conditions (funding, networks, product maturity). This suggests a stage of identity transition, characterized by a high degree of latent intention but little consolidation.

E2: “After you finish your doctorate [...] it was very exhausting [...] I put things on stand-by.”

E2: “I’m waiting for the right moment, you know, and for someone’s support [...] to see if I can move this project forward.”

E2: “If things get a bit more difficult [...] I’ll just go ahead and start my own business...”

The category Social Capital and Support Networks appeared in this group with 21 occurrences, indicating that networks and partnerships are a critical enabling condition at this stage. Furthermore, interviewees mention dependence on strategic allies to overcome technical, market, and financial barriers.

E2: “I have to mention FUNCAP; researchers need the Funding Institute.”

E4: “You do a research project [...] patience. But as an entrepreneur, there’s a fair, a set date, and you have to be ready.”

E4: “The academic side says: ‘let it go’. The entrepreneur sees opportunity and is already thinking about the market.”

E5: “The biggest difficulties have been with infrastructure [...] equipment breakdowns [...] maintenance challenges.”

The category Hybrid Identity and Integration of Professional Roles occurs 19 times, with narratives about the integration between the roles of scientist and entrepreneur. The interviewees do not see themselves exclusively as entrepreneurs, but as translators or facilitators (between research and the market), or as hybrids, naturally acting with transactionality between the two worlds.

E4: “My daughter was suffering from the smoke [...] and I did nothing [...] I began the journey that culminated in the patent.”

E4: “I didn’t have this concept of a product [...] suddenly, we managed to get a small autonomous boat to move in the river.”

E4: “I have a partner with a master’s in electrical engineering [...] he helps with the really specific technical aspects of the project.”

E6: “Professor Daniel invited me [...] he wanted to create this lab dedicated to research and innovation [...] that’s exactly what I want.”

There is evidence of a Progressive Construction of Entrepreneurial Identity, with this category reaching 15 occurrences. Their trajectories are being experimented with and tested,

indicating that entrepreneurial identity is not yet consolidated—something still in the experimental field, with practical learning, mistakes, and frequent identity reconfigurations.

E2: “At the Hackathon I developed a product [...] there was commercial interest [...] I registered a trademark [...] it’s under review.”

E2: “As a good manager [...] I keep lots of spreadsheets [...] now opening up to this market idea.”

E5: “It’s not really my strength [...] I delegate this part to other team members.”

Even without consolidated entrepreneurial experience, there is evidence—14 occurrences—of Individual Entrepreneurial Orientation. Some demonstrate a proactive, innovative, and risk-taking profile. This indicates a potential latent individual development in some subjects, even in the face of contextual barriers.

E2: “My innovative profile was important [...] I know how to make a business plan, I know how to analyze products.”

E4: “I identified that there are Chinese companies doing something similar [...] but my approach is different [...] it’s a new horizon.”

It is observed that the group shows characteristics of being in transition between scientific and entrepreneurial identity, with cases of ambivalence, strategic waiting, and identity testing. The strong presence of categories such as “Temporality” and “Progressive Construction” indicates that academic entrepreneurial identity here is situated in a context of transactionality and negotiation. As a source of support for this identity construction, networks stand out as a central factor of viability and validation, reinforcing the idea that entrepreneurial identity at this stage is relational and contextual.

Intragroup Analysis: TRL 7 to 9

The category Progressive Construction of Entrepreneurial Identity occurs 20 times in the TRL 7 to 9 group. There is evidence that academics are still undergoing trajectories of identity development, even when already engaged in advanced entrepreneurial activities. Here, the construction of entrepreneurial identity manifests as a dynamic process, not as a static end point. The maturation of the entrepreneurial role is marked by attempts to approach productive partners, reorganization of professional trajectories, and a re-signification of scientific training—often viewed as excessively traditional and restrictive. These individuals begin to claim a new position, demanding recognition both as scientists and as market agents.

E1: “looking for a partner for production.”

E3: “Of course, if you are a doctor [...] you get respect. I am a professor, I am a PhD, I am a scientist.”

E7: “[...] my education [...] was a very traditional view of training a researcher [...] the programs were not yet prepared for this perspective [...]”

The category Conflict and Synergy between Identity Centralities occurs 18 times. The duality between scientific and entrepreneurial identity becomes even more sensitive in this group. There is a constant negotiation between academic values and market demands, where the research object—often perceived as a “child”—needs to be modified to become viable in the market. At the same time, there is a repositioning within the university ecosystem, with interviewees recognizing that their activities challenge norms and provoke institutional resistance. This group, therefore, evidences conflict and hybridization as coexisting strategies to reconcile two worlds that, although distinct, are forced to communicate.

E1: “it’s like a child [...] it’s very hard to say your child is ugly or needs a haircut.”

E3: “being expelled from the university [...] leaving the humanities campus [...] in the hard sciences, people with doors open [...] I’m in the wrong place.”
E7: “[...] this allowed me to have a more transversal view of science [...] with molecular tools [...]”

In this group, typical behavioral traits of Individual Entrepreneurial Orientation (IEO) emerge 15 times, with characteristics such as proactivity, innovation, perseverance, and self-management. Interviewees report formative experiences outside academia, such as SEBRAE trainings or practical situations requiring the acquisition of soft skills not addressed in their scientific training. There is also a dimension of learning by experimentation, with entrepreneurship arising as a logical consequence of a restless trajectory driven by autonomy.

E1: “we researchers do not know how to talk to companies [...] we approach them with very academic language.”
E3: “I went through an experience [...] SEBRAE’s entrepreneurial behaviors; they are not taught at school.”
E7: “[...] team management [...] parallel career as a manager [...] this led me to deep reflection.”
E10: “20 years of study [...] effective input [...] continuous development [...] adaptation to market demands [...] constant updates.”

With regard to Social Capital and Support Networks, which had 14 occurrences, they play a central role in the consolidation of entrepreneurial identity in this group. Interviewees do not operate in isolation; they build diverse teams, mobilize support, and recognize that project success is linked to their ability to mobilize relational capital. Even when operating with a strong individual orientation, they acknowledge the role of teamwork and collectivity in enabling innovation.

E10: “Personal motivation [...] family trajectory linked to coconut [...] academic and professional experiences in the sector.”
E1: “We have a very diverse team [...] capable of acting on several fronts.”

Finally, Identity Centrality and the Entrepreneurial Mission of the University is highlighted, with 10 occurrences, through a critical yet constructive vision of the university’s institutional role. The university’s mission as a catalyst for innovation is asserted—or demanded—based on concrete experiences of barriers or support. The academic entrepreneur at TRL 7 to 9 seeks to articulate their identity with the institutional mission, requiring the university to go beyond rhetoric and act as a true facilitator of innovation and social impact..

Intergroup Analysis

The category Progressive Construction of Entrepreneurial Identity appears in both groups, with 15 occurrences in TRL 4–6 and 20 in TRL 7–9, revealing that academic entrepreneurial identity is often constructed in a processual and contingent manner, even at more advanced technological stages. According to Mathias and Williams (2017), entrepreneurial identity is formed through identity experimentation and practical attempts at adaptation. This perspective is reinforced by Jain et al. (2009), who show that academics frequently learn to be entrepreneurs while carrying out market-oriented actions, without entirely abandoning their scientific foundation.

E10 (TRL 7–9): “focus on resuming production [...] qualifying business models [...] structured portfolio to negotiate with companies.”
E1 (TRL 4–6): “looking for a partner for production.”
E7 (TRL 4–6): “my education was very much the traditional view of training a researcher [...] programs were not yet prepared for this perspective [...]”

These statements show that, even in cases of greater technological maturity, identity displacement occurs in layers: the researcher sees themselves as someone in constant reconfiguration.

The increase in the frequency of Conflict and Synergy between Identity Centralities in TRL 7–9 (from 12 to 18 cases) suggests that the consolidation of entrepreneurial identity does not eliminate identity conflicts, but may intensify them by demanding practical decisions that challenge the traditional scientific ethos. Zuo et al. (2022) and Hayter (2016) point out that entrepreneurial and academic identities are not naturally complementary, and that the coexistence of both requires conscious efforts at integration and mediation. The result is often a state of hybrid tension, in which the researcher acts as an entrepreneur without fully recognizing themselves in that role.

E10 (TRL 7–9): “greatest difficulties [...] lack of pre-operational resources [...] absence of institutional support.”

E3 (TRL 4–6): “being expelled from the university [...] I moved to the hard sciences campus [...] I’m in the wrong place.”

E1 (TRL 4–6): “it’s like a child [...] it’s very difficult to say your child is ugly [...]”

These data reinforce the idea that practice intensifies symbolic rupture: the further the researcher advances into entrepreneurship, the more they confront the symbolic limits of their original scientific identity.

The category Individual Entrepreneurial Orientation remains stable across both groups (14 in TRL 4–6 and 15 in TRL 7–9), indicating that individual entrepreneurial behavior traits—such as proactivity, autonomy, and risk tolerance—do not depend exclusively on technological stage, but rather on the individual’s biography and disposition. Correa et al. (2021) highlight that individual entrepreneurial orientation is a relevant determinant of innovative action, even in adverse institutional contexts. Hayter (2016) also suggests that entrepreneurial identity may emerge before concrete opportunity, as a mode of being for the scientist.

E10 (TRL 7–9): “20 years of study [...] adaptation to market demands [...] constant updating.”

E4 (TRL 4–6): “We identified a similar Chinese prototype [...] but what I propose is different [...] I see a new horizon.”

E2 (TRL 4–6): “my innovative profile was important [...] I know how to make a business plan [...] not everyone has that.”

These cases demonstrate that the entrepreneurial drive may precede technological development, serving as a driver for engagement with innovation.

The frequency of the category Social Capital and Support Networks drops from 21 to 14 occurrences between the groups, indicating that, while important in both cases, relational capital seems to be more critical at the intermediate TRL, where the researcher still depends heavily on external support to enable their trajectory. Nahapiet and Ghoshal (1998) argue that social capital provides access to informational and financial resources not available through formal channels. For Hayter (2016), networks are crucial, especially in the initial stages of entrepreneurial transition.

E10 (TRL 7–9): “family trajectory connected to coconut [...] academic and professional experiences in the sector.”

E5 (TRL 4–6): “the biggest difficulties have been with infrastructure [...] equipment breakdowns [...] maintenance challenges.”

E4 (TRL 4–6): “I have a partner with a master’s in electrical engineering [...] helps with the technical aspects of the project.”

In TRL 4–6, networks seem to function as enabling levers; in TRL 7–9, they remain relevant but are often already institutionalized or replaced by formal routines.

Identity Centrality and Institutional Mission shows a slight decline in the more advanced group (from 13 to 10 cases), suggesting that researchers in transition require more institutional support to legitimize their actions, whereas those more consolidated operate with greater autonomy. Wang et al. (2021) argue that alignment between institutional mission and entrepreneurial practices is crucial for sustaining the academic entrepreneur’s identity. When such alignment does not occur, zones of conflict arise between institutional logic and individual goals.

E10 (TRL 7–9): “interest in social innovation [...] focus on a specific purpose, not profit for profit’s sake.”

E3 (TRL 4–6): “the university plays its role; the research center plays its; the entrepreneur: connection.”

E1 (TRL 4–6): “the university falls short [...] in terms of contributing at the speed the company needs.”

These narratives reveal both a desire for institutional articulation and a critique of the slowness and inadequacy of academic mechanisms in the face of entrepreneurial logic.

The intergroup analysis reveals that academic entrepreneurial identity is not a fixed point, but a relational, situated, and tensioned process. The most frequent categories indicate a trajectory of transition that persists even in advanced stages of technological development. The literature consulted legitimizes this interpretation by emphasizing that identity is always negotiated, performed, and situated, especially in the case of the academic entrepreneur, who operates at the intersection of science and the market.

Definition of the Academic Entrepreneurial Identity Construct

Understanding Academic Entrepreneurial Identity (AEI) requires careful attention to the situated dynamics of researchers’ trajectories as they navigate between scientific and market domains (Etzkowitz, 2003; Jain et al., 2009; Hayter et al., 2021). Such an approach can only be effectively constructed when anchored in empirical evidence, such as that produced by the intra- and inter-group analyses conducted in this study, in close dialogue with the theoretical underpinnings of Entrepreneurial Social Identity Theory (ESIT) (Fauchart & Gruber, 2011; Ferguson, 2011) and, notably, with the theoretical synthesis proposed by Melo Filho et al. (2025).

The intragroup analysis revealed that academic entrepreneurial identity does not emerge abruptly, but rather as an incremental process dependent on the project’s maturity stage and the researcher’s experiences (Jain et al., 2009; Hayter et al., 2021; Melo Filho et al., 2025). Among researchers at intermediate stages of technological development (TRL 4–6), the categories of temporality and entrepreneurial intention, as well as social capital and support networks, feature prominently, signaling an identity in formation, in which the motivation to engage in entrepreneurship still depends heavily on external contextual conditions, such as access to calls for proposals, institutional incentives, and collaboration networks (Davey et al., 2016; Agüero et al., 2011; Pugh et al., 2018).

The narratives of these academics evidence the experience of a hybrid and negotiated identity; they are faculty-researchers who see themselves as translators or facilitators, moving between research culture and market logic without abandoning academic centrality (Zuo et al., 2019; Guo et al., 2020; Majoor-Kozlinska et al., 2024). This characteristic supports Melo Filho et al.'s (2025) argument that entrepreneurial identity, at this stage, is regulated by transactionality—that is, the ability to navigate between scientific and market frameworks without rupture of the core identity (Nielsen & Gartner, 2017; Hayter et al., 2021; Melo Filho et al., 2025).

For researchers at more advanced stages (TRL 7–9), evidence of progressive construction of entrepreneurial identity remains. However, new nuances emerge: conflict and synergy between identity centralities become more frequent and explicit (Zuo et al., 2019; Choi et al., 2024). The advancement of entrepreneurial activities imposes practical decisions that challenge traditional values, leading to a tense coexistence between the scientific ethos and market demands (Hayter et al., 2021; Wang et al., 2021). Empirical evidence that this tension is more intense in the advanced group reinforces Melo Filho et al.'s (2025) premise that academic entrepreneurial identity is continuously constructed, reconstructed, and negotiated as researchers advance in their innovation trajectories (Fenters et al., 2025).

It is also important to note that, in both groups, individual entrepreneurial orientation emerges as a transversal trait, indicating that the disposition toward innovation, risk, and autonomy are personal factors that sustain the emergence of identity, regardless of project stage (Correa et al., 2021; Down & Warren, 2008; Melo Filho et al., 2025).

Comparing the two groups, it is evident that AEI is not constituted as a fixed archetype, but as a processual construct that depends on structural, relational, and individual conditions (Fauchart & Gruber, 2011; Jain et al., 2009; Melo Filho et al., 2025). For example, the category of progressive construction of entrepreneurial identity is recurrent in both, legitimizing the argument that academic entrepreneurial identity is forged through experimentation, social learning, and continuous reconfiguration of roles (Mathias & Williams, 2017; Hayter et al., 2021; Melo Filho et al., 2025). This finding is validated by Melo Filho et al. (2025), who advocates the idea of a “liquid academic entrepreneurial identity,” characterized by adaptability and permanent adjustment in response to institutional, market, and personal pressures.

Moreover, intergroup analysis reveals that identity conflict tends to intensify as researchers become more deeply involved in innovation and entrepreneurship practices (Zuo et al., 2019; Guo et al., 2020). This ambivalence, far from being an obstacle, is the very expression of academic entrepreneurial identity: the researcher must integrate, without suppressing, the centrality of academic identity (belonging to the scientific group) with the demands and practices of the market (Melo Filho et al., 2025; Sani et al., 2007).

The role of support networks and social capital is particularly notable in the intermediate group, functioning as elements of external validation and support for identity transition (Nahapiet & Ghoshal, 1998; Hayter et al., 2016; Pugh et al., 2018). As maturity advances, such networks become institutionalized and part of the researcher's repertoire, confirming that the perception of belonging to the academic group and institutional support are fundamental for avoiding abrupt identity ruptures (Melo Filho et al., 2025; Sani et al., 2007; Zou et al., 2018).

Finally, institutional centrality and the university's mission appear as stabilizing factors, ensuring that entrepreneurial identity is legitimized without researchers losing their connection to academic values, norms, and evaluation criteria (Etzkowitz & Leydesdorff, 2000; Wang et al., 2021; Hayter et al., 2021; Melo Filho et al., 2025), thereby reinforcing the perception of continuity with group identification. When institutional misalignment occurs, zones of conflict may arise, potentially hindering or even preventing the consolidation of academic entrepreneurial identity (Hayter et al., 2021; Melo Filho et al., 2025).

Therefore, intra- and intergroup analysis supports that Academic Entrepreneurial Identity is a processual, relational, and situated construct, resulting from the researcher's ability to transact between divergent institutional logics, adjusting motivations, self-evaluations, and frames of reference, while preserving the perception of continuity with the central academic group (Fauchart & Gruber, 2011; Melo Filho et al., 2025; Sani et al., 2007). What legitimizes this construct, in accordance with Melo Filho et al. (2025), is precisely the fact that it is not an identity fusion, but rather a permanent negotiation mediated by individual (entrepreneurial orientation, biography), contextual (networks, institutional mission), and relational (group belonging, external validation) factors.

The theoretical-empirical framework presented here helps to overcome the limitations of the literature, which frequently treated academic entrepreneurship only as the result of contextual or individual variables (Grimaldi et al., 2011; Yusof & Jain, 2010; Perkmann et al., 2021), by showing that academic entrepreneurial identity is, above all, a process of social construction, in which motivational, referential, and evaluative dimensions are dynamically articulated, supported by transactionality competencies and the perception of stable belonging to the central group (Fauchart & Gruber, 2011; Melo Filho et al., 2025; Sani et al., 2007).

FINAL CONSIDERATIONS

This study offers a refined understanding of Academic Entrepreneurial Identity (AEI) by proposing and empirically supporting a multidimensional construct based on social motivation, frames of reference, and self-evaluation, all mediated by transactional competence and group continuity. Through intra- and inter-group analysis, the findings reveal that AEI is not a static state but an evolving process shaped by personal experience, institutional context, and support networks.

The results demonstrate that academic entrepreneurs must continually negotiate between academic and market logics, maintaining their legitimacy and sense of belonging while adapting to new challenges. This dynamic process helps explain how researchers engage with innovation and respond to the evolving demands of contemporary universities and society at large.

The main theoretical contributions include a more precise model for understanding AEI, identification of critical factors influencing its development, and practical guidance for designing institutional policies that foster hybrid academic-entrepreneurial trajectories. Nevertheless, limitations such as sample specificity, the qualitative nature of the research, and the need for quantitative validation are acknowledged, pointing to future research directions. A deeper exploration of AEI is essential for institutions seeking to promote a culture of innovation and support academic researchers in bridging science and the marketplace. Advancing this agenda will enable universities to create more inclusive and impactful environments, aligning academic missions with societal needs.

REFERENCES

- Lopes, C. C. S., & Teixeira, R. M. (2024). Entrepreneurial learning for innovation: A multiple case study. *RAM. Revista de Administração Mackenzie*, 25(2), eRAMR240046.
- Yadav, V., & Goyal, P. (2015). User innovation and entrepreneurship: case studies from rural India. *Journal of Innovation and Entrepreneurship*, 4, 1-20.
- Cahen, F., Borini, F., Dhanaraj, C., & Morais, R. (2025). Unpacking global digital competence in the contemporary international venture. *International Business Review*.
<https://doi.org/10.1016/j.ibusrev.2025.102414>
- Rossetto, D. E., Borini, F. M., Bernardes, R. C., & Frankwick, G. L. (2023). Measuring frugal innovation capabilities: An initial scale proposition. *Technovation*, 121, 102674.
<https://doi.org/10.1016/j.technovation.2022.102674>
- Suter, M. B., Munjal, S., Borini, F. M., & Floriani, D. (2021). Conceptualizing country-of-origin image as a country-specific advantage: An insider perspective. *Journal of Business Research*, 134, 415–427. <https://doi.org/10.1016/j.jbusres.2021.05.034>
- Aguero, M. M., Peñalver, A. J. B., & de Lema, D. G. P. (2011). El emprendedor académico. *Tourism & Management Studies*, 1, 923-934.
- Ahmad, N. H., Halim, H. A., & Ramayah, T. (2016). Dilemma on the entrepreneurial university ideal: The prevailing academic tensions. *Croatian Journal of Education-Hrvatski Casopis za Odgoj i obrazovanje*.
- Anderson, A. R., & Jack, S. L. (2002). The articulation of social capital in entrepreneurial networks: A glue or a lubricant? *Entrepreneurship & Regional Development*, 14 (3), 193-210. <https://doi.org/10.1080/08985620110102055>
- Audretsch, D. B., Lehmann, E. E., & Plummer, L. A. (2002). Entrepreneurial processes in academic research. *Research Policy*, 31 (2), 313-330.
- Bauman, Z. (2000). *Liquid modernity*. Polity Press.
- Beck, U. (2011). *World at risk*. Polity Press.
- Bordean, O. N., Chis, D. M., Beileu, I. N., Salanta, I. I., Cris, E. L., & Mihăilă, A. A. (2024). Pathways to academics' entrepreneurial intention: A configurational analysis of individual determinants. *IEEE Transactions on Engineering Management*.
- Burkholder, P. T., & Hulsink, W. (2022). Academic intrapreneurship for health care innovation: The importance of influence, perception, and time management in knowledge commercialization at a university's medical center. *Journal of Technology Transfer*. <https://doi.org/10.1007/s10961-022-09974-6>
- Cantaragiu, R. (2012). Towards a conceptual delimitation of academic entrepreneurship. *Management and Marketing*.
- Chavali, S., & Rath, G. P. (2024). Academic leadership in neuroanesthesia and neurocritical care in India. *Journal of Neuroanaesthesiology and Critical Care*.
<https://doi.org/10.1055/s-0044-1789280>
- Choi, H., Siegel, D. S., Waldman, D. A., Frandell, A., & Kim, J. (2024). Role conflict, entrepreneurial identity, and academic entrepreneurship: The effects of immigration status. *Small Business Economics*, 63 (2), 611-626.
- Davey, T., Rossano, S., & Van der Sijde, P. (2016). Does context matter in academic entrepreneurship? The role of barriers and drivers in the regional and national context. *The Journal of Technology Transfer*, 41, 1457-1482.
- de Vasconcelos Gomes, L. A., Salerno, M. S., Phaal, R., & Probert, D. R. (2018). How entrepreneurs manage collective uncertainties in innovation ecosystems. *Technological Forecasting and Social Change*, 128, 164-185.
- Donoso-González, C., Muñoz-Doyague, M. F., & Ribeiro-Soriano, D. (2022). Academic entrepreneurship: Exploring the role of identity transitions in academic spin-offs. *Journal of Business Research*, 141, 1-12.
<https://doi.org/10.1016/j.jbusres.2021.12.005>

- Down, S., & Warren, L. (2008). Entrepreneurial identity and the learning landscape. **Education + Training**, 50 (5), 399-413. <https://doi.org/10.1108/00400910810890979>
- Ebaugh, H. R. F. (1988). **Becoming an ex**: The process of role exit . University of Chicago Press.
- Etzkowitz, H. (2003). Innovation in innovation: The triple helix of university-industry-government relations. **Social Science Information**, 42 (3), 293-337. <https://doi.org/10.1177/05390184030423001>
- Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: From National Systems and “Mode 2” to a Triple Helix of university–industry–government relations. **Research Policy**, 29 (2), 109-123.
- Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. **Journal of Small Business Management**, 53 (1), 75-93. <https://doi.org/10.1111/jsbm.12176>
- Fauchart, E., & Gruber, M. (2011). Darwinians, communitarians, and missionaries: The role of founder identity in entrepreneurship. **Academy of Management Journal**, 54 (5), 935-957. <https://doi.org/10.5465/amj.2008.0211>
- Ferreira, J. J., Fayolle, A., Fernandes, C., & Raposo, M. (2016). Effects of Schumpeterian and Kirznerian entrepreneurship on economic growth: Panel data evidence. **Entrepreneurship & Regional Development**, 29 (1-2), 27-50.
- Fenters, V. W., Balven, R. M., Ashforth, B. E., Waldman, D. A., & Siegel, D. S. (2025). How identity structure influences identity adoption: The case of hybrid entrepreneurs. **Academy of Management Journal**. <https://doi.org/10.5465/amj.2023.0520>
- Franzoni, C., & Lissoni, F. (2006). Academic entrepreneurship, patents and spin-offs: Critical issues and lessons for Europe (pp. 1-33). Milano: Università commerciale Luigi Bocconi.
- Grimaldi, R., Kenney, M., Siegel, D. S., & Wright, M. (2011). 30 years after Bayh-Dole: Reassessing academic entrepreneurship. **Research Policy**, 40 (8), 1045-1057.
- Guo, F., Restubog, S. L. D., Cui, L., Zou, B., & Choi, Y. (2019). What determines the entrepreneurial success of academics? Navigating multiple social identities in the hybrid career of academic entrepreneurs. **Journal of Vocational Behavior**, 112 , 241-254.
- Guo, Z., Guo, Y., Wang, X., & Zhang, J. (2019). Navigating multiple identities: How academics balance teaching, research, and entrepreneurial roles. **Studies in Higher Education**, 44 (5), 890-904. <https://doi.org/10.1080/03075079.2017.1385496>
- Hamdoun, A. (2021). Academic leadership commences by self-leadership. **SHS Web of Conferences** . <https://doi.org/10.1051/SHSCONF/202111101001>
- Hayter, C. S., Fischer, B., & Rasmussen, E. (2021). Becoming an academic entrepreneur: How scientists develop an entrepreneurial identity. **Small Business Economics**, 1-19 .
- Hayter, C. S., Lubynsky, R., & Maroulis, S. (2021). Academic liminality: Exploring the experiences of faculty entrepreneurs. **Research Policy**, 50 (2), 104184. <https://doi.org/10.1016/j.respol.2020.104184>
- Holley, K. A., & Watson, A. (2017). Academic entrepreneurship and community engagement: Symbiotic relationships and potential future directions. **New Directions for Higher Education**, 2017 (178), 43-49.
- Jain, S., George, G., & Maltarich, M. (2009). Academics or entrepreneurs? Investigating role identity modification of university scientists involved in commercialization activity. **Research Policy**, 38 (6), 922-935.
- Jisheng, L., & Saeed, M. (2020). Determinants of academic entrepreneurship: a strategic entrepreneurship model. **Jurnal Ilmiah Ekonomi Bisnis**, 25(3), 216-225..

- Karlsdottir, V., Torfason, M. T., Edvardsson, I. R., & Heijstra, T. M. (2022). Assessing academics' third mission engagement by individual and organisational predictors. **Administrative Sciences**, 13 (1), 9.
- Kempster, S., Parry, K., & Weir, H. (2019). Reconstructing academic identity in the context of entrepreneurial universities. **Higher Education**, 77 (5), 891-906.
<https://doi.org/10.1007/s10734-018-0305-5>
- Klofsten, M., & Jones-Evans, D. (2000). Comparing academic entrepreneurship in Europe – The case of Sweden and Ireland. **Small Business Economics**, 14 , 299-309.
- Kotov, N. A. (2015). Sustainability of the academic enterprise in the United States. **ACS Nano** . https://typeset.io/papers/sustainability-of-the-academic-enterprise-in-the-united-58ji8q3y30?utm_source=chatgpt
- Lehmann, E. E., Otto, J. M., & Wirsching, K. (2024). Entrepreneurial universities and the third mission paradigm shift from economic performance to impact entrepreneurship: Germany's EXIST program and ESG orientation. **The Journal of Technology Transfer**, 1-16 .
- Louis, K. S., Blumenthal, D., Gluck, M. E., & Stoto, M. A. (1989). Entrepreneurs in academe: An exploration of behaviors among life scientists. **Administrative Science Quarterly**, 34 (1), 110-131.
- Majoor-Kozlinska, I., Hytti, U., & Stenholm, P. (2024). Academics and entrepreneurs: Enablers of hybrid identity centrality among university researchers. **Journal of Small Business Management**, 62 (6), 3191-3225.
- Matricano, D., Guadalupi, L., Tutore, V. A., Andreottola, F., & Sorrentino, M. (2012). **The creation of academic spin-offs: Evidences from Italy** . Milan, Italy: McGraw-Hill.
- Mukhopadhyay, M. (2023). **Academic leadership** . Routledge.
<https://doi.org/10.4324/9781003376545>
- Munierks, M. (2014). **Passion-driven academic entrepreneurship. In Passion-driven entrepreneurship: Insights from the field** (pp. 123-145). Springer.
- Neves, S., & Brito, C. (2020). **Academic entrepreneurship intentions: A systematic literature review**. *Journal of Management Development*, 39 (5), 645-704.
- Nielsen, S. L., & Gartner, W. B. (2017). Coexistence of multiple identities in entrepreneurship. **International Journal of Entrepreneurial Behavior & Research**, 23 (1), 1-22. <https://doi.org/10.1108/IJEBR-06-2016-0159>
- Nowotny, H., Scott, P., & Gibbons, M. (2002). Re-thinking science: Knowledge and the public in an age of uncertainty . **Polity**.
- Ponte, S., & Sturgeon, T. (2017). Explaining governance in global value chains: A modular theory-building effort. **In Global Value Chains and Global Production Networks** (pp. 195-223). Routledge.
- Perkmann, M., Salandra, R., Tartari, V., McKelvey, M., & Hughes, A. (2021). Academic engagement: A review of the literature 2011-2019. **Research Policy**, 50 (1), 104114.
- Petriglieri, G. (2011). Under threat: Responses to and the consequences of threats to individuals' identities. **Academy of Management Review**, 36 (4), 641-662.
<https://doi.org/10.5465/amr.2009.0145>
- Rasmussen, E. A., & Wright, M. (2015). How can universities facilitate academic spin-offs? An entrepreneurial competency perspective. **Journal of Technology Transfer**, 40 (5), 782-799. <https://doi.org/10.1007/s10961-014-9371-7>
- Rodrigues, G. G., Ferreira, J. M., & Felgueiras, A. A. (2019). Academic entrepreneurship and knowledge transfer: Reflections on intra-academic entrepreneurship. **Journal of Higher Education Policy and Management**, 41 (5), 458-474.

- Rodríguez-Aceves, L., Couto-Ortega, M., Minola, T., Markuerkiaga, L., & Hahn, D. (2024). Entrepreneurial university governance: The case of a cooperative university. **The Journal of Technology Transfer**, 1-34 .
- Rubini, L., Pollio, C., Gaeta, G. L., & Barbieri, E. (2021). Heterogeneous effects of spinoff foundations on the means of technology transfer: The role of past academic-industry collaborations. **Economia Politica**, 38 (1), 261-292.
- Rothaermel, F. T., Agung, S. D., & Jiang, L. (2007). University entrepreneurship: A taxonomy of the literature. **Industrial and Corporate Change**, 16 (4), 691-791.
- Sani, F., Herrera, M., Bowe, M., & Todman, M. (2007). Perceived collective continuity and social well-being: Exploring the connections. **European Journal of Social Psychology**, 37 (2), 365-374. <https://doi.org/10.1002/ejsp.354>
- Schmitz, A., Urbano, D., Dandolini, G. A., de Souza, J. A., & Guerrero, M. (2017). Innovation and entrepreneurship in the academic setting: A systematic literature review. **International Entrepreneurship and Management Journal**, 13 , 369-395.
- Shi, Y., Zou, B., & Santos, R. S. (2021). Dr. Jekyll and Mr. Hyde: How do academic entrepreneurs deal with identity conflict? **Review of Managerial Science**, 15 (8), 2165-2191.
- Siegel, D. S., & Wright, M. (2015). Academic entrepreneurship: Time for a rethink? **British Journal of Management**, 26 (4), 582-595.
- Smeekes, A., & Verkuyten, M. (2017). Collective continuity and its implications for group-based emotions and action tendencies. **Personality and Social Psychology Bulletin**, 43 (1), 3-16. <https://doi.org/10.1177/0146167216676478>
- Srinivas, V. (2016). Institutional Culture & Academic Entrepreneurship Averting a Crisis and Salvaging the Last Bastion of Competitiveness. **Journal of Engineering Education Transformations**, 29(3).
- Tajfel, H., & Turner, J. C. (1979). **An integrative theory of intergroup conflict**. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Brooks/Cole.
- Turner, S. F., & Gianiodis, P. T. (2018). Fluid identities in academic entrepreneurship: Exploring the role of identity work. **Entrepreneurship Theory and Practice**, 42 (4), 567-592. <https://doi.org/10.1177/1042258717745723>
- Urban, B., & Gamata, S. (2020). Academic entrepreneurship and organisational support factors. **South African Journal of Higher Education**, 34 (1). <https://doi.org/10.20853/34-1-3404>
- Wang, M., Soetanto, D., Cai, J., & Munir, H. (2021). Scientist or entrepreneur? Identity centrality, university entrepreneurial mission, and academic entrepreneurial intention. **The Journal of Technology Transfer**, 1-28 .
- Yusof, M., & Jain, K. (2010). Categories of university-level entrepreneurship: A literature survey. **International Entrepreneurship and Management Journal**, 6 (1), 81-96.
- Zou, B., Guo, J., Guo, F., Shi, Y., & Li, Y. (2019). Who am I? The influence of social identification on academic entrepreneurs' role conflict. **International Entrepreneurship and Management Journal**, 15 , 363-384.
- Zou, H., Yu, J., & Wang, Q. (2018). Identity continuity and psychological well-being among academics transitioning to entrepreneurial roles. **Journal of Vocational Behavior**, 105, 1-15. <https://doi.org/10.1016/j.jvb.2017.12.003>