

ENTREPRENEURIAL GROWTH: BRIDGING EXPERIENTIAL LEARNING, ECOLOGICAL SYSTEMS ANALYSIS AND GOVERNANCE OF ENTREPRENEURSHIP CENTER ENVIRONMENTS

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Abstract

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This paper delves into the intricate interplay of leadership dynamics, governance, and regulatory concepts within a South African university-based entrepreneurship center (EC). Guided by Kolb's (2014) experiential learning model (Kolb, 2014), the research aims to understand how experiential learning shapes leadership and the "self" within the EC, unraveling the nuanced relationship between leadership, personal mastery, governance, and regulatory compliance. The methodology integrates experiential insights, literature reviews, and systems analysis. Key findings highlight the implicit integration of governance and regulatory concepts, ensuring ethical standards adherence. Senge's (2006) fifth discipline model emphasizes the pivotal role of a learning culture, while concepts of governance structure learning processes and ensure compliance. Personal mastery aligns with governance, emphasizing leaders' responsibility for ethical standards and continuous self-improvement. Short's (1998) insights on learning in relationships and Kaner's (2014) facilitation guide contribute to the governance of participatory decision-making processes within the EC. The methodology contributes to a conceptual framework exploring the reciprocal influence between leadership and the "self". The study concludes by offering actionable strategies for EC leaders, emphasizing adaptability, collaboration, and a profound understanding of leadership dynamics, governance, and regulatory concepts. Its relevance lies in guiding EC leaders toward sustained growth in the ever-evolving entrepreneurship ecosystem.

Keywords: Governance, Experiential Learning, Systems Thinking, Entrepreneurship, Leadership

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1. INTRODUCTION

In the dynamic realm of business incubation, effective leadership is a cornerstone of success, particularly within the South African university-based entrepreneurship center (EC). This paper takes an innovative approach by examining the profound influence of the “self” in leadership dynamics, using an experiential learning systems analysis to unravel leadership intricacies within a South African university’s EC. Recognizing leadership’s critical role in business incubation, governance concepts are interwoven into the analysis, emphasizing ethical leadership, regulatory compliance, and responsible resource stewardship. The “self” emerges as a dynamic force, shaped by governance and regulation concepts to ensure leaders operate within legal and ethical boundaries.

The chosen experiential learning systems analysis methodology integrates governance into leadership experiences within the EC, addressing the complexity of the South African university ecosystem. The concept of governance becomes pivotal in navigating complexity, addressing compliance, stakeholder engagement, and aligning leadership practices with the university’s mission and values. Throughout the paper, governance’s role in fostering ethical leadership is expounded upon, covering legal adherence, transparency, accountability, and establishment of governance structures for responsible EC management.

This paper contributes to entrepreneurship, leadership, and business incubation knowledge by exploring the “self” complexities in the leadership narrative of a South African university-based EC. Understanding the interplay between leadership dynamics and the “self” is crucial for optimizing strategies, fostering innovation, and addressing unique South African challenges in entrepreneurship. Going beyond examining leadership practices, this paper delves into the transformative influence of the “self” in steering entrepreneurial endeavors. Drawing on Ugoani’s (2023) and Kajamaa and Tuunainen’s (2022) works, it delineates primary and accessory leadership roles within the EC, considering distributed leadership dynamics. Dalati’s (2015) theoretical framework is incorporated, exploring universally endorsed leadership behaviors, while Coglisier and Brigham’s (2004) insights connect leadership challenges in entrepreneurship and organizational research. Mihalache et al. (2014) proposition of shared leadership is also discussed.

Applying Bronfenbrenner’s (1979) ecological model, the paper unveils the interconnectedness of the entrepreneurship ecosystem, contributing nuanced insights into the relationship between leadership, “self”, and the unique EC ecosystem. Integrating various theoretical frameworks, the paper emphasizes the importance of governance and regulation concepts in optimizing leadership strategies within the entrepreneurship ecosystem. It concludes by demonstrating how governance and regulation concepts navigate entrepreneurship complexities, ensuring ethical leadership practices and sustainable ventures within a regulated framework.

The existing literature on business incubation, particularly in the South African context, lacks an in-depth exploration of the role of the “self” in

leadership dynamics within university-based ECs. While leadership and governance are recognized as critical in business incubation success, there’s a gap in understanding how the “self” influences these dynamics.

The primary aim of this research is to uncover the nuanced relationship between leadership dynamics, particularly the influence of the “self”, governance, and regulatory concepts within a South African university-based EC. In this paper, four critical research inquiries were formulated, strategically assessing the pivotal role of leadership in establishing an EC with a mission of business incubation in the transformation of entrepreneurial concepts into thriving ventures. The four research questions interrogated are:

RQ1: How can the business center ecosystem and governance principles effectively embrace a “systems thinking” approach, incorporating Bolman and Deal’s (2017) reframing organizations lens and Kolb’s (2014) experiential learning model, to comprehensively understand the complex network of environmental variables influencing and being influenced by the ecosystem?

RQ2: To what degree do individual talents and the establishment of strategic partnerships contribute to the overall success of a business center focused on entrepreneurial incubation?

The study objectives are summarized as follows:

- investigate how governance shapes the “self” in leadership within the entrepreneurial ecosystem, particularly in the context of workplace learning and competency development within a university-based EC;
- explore the role of governance using Bronfenbrenner’s (1979) ecological model in shaping the “self” at the microsystem, mesosystem, exosystem, macrosystem, and chronosystem levels.

The study delves into the intricate dynamics of ECs within South African university contexts, weaving together insights from an array of theoretical perspectives including Bolman and Deal’s (2017) reframing organizations model, Kolb’s (2014) experiential learning model, Senge’s (2006) fifth discipline, along with contributions from Ugoani (2023) on leadership, Kajamaa and Tuunainen (2022) on distributed leadership, Dalati (2015) on leadership behaviors, and Bronfenbrenner’s (1979) ecological theory. This amalgamation of theories aids in dissecting the complex interplay between leadership, the individual’s role within these systems (the “self”), and the overarching governance structures that underpin the entrepreneurial ecosystem.

Central to this investigation is the emphasis on governance, a pivotal element that interlocks with the fabric of leadership and the self-concept within the ECs, offering a more nuanced and ethically informed vista of the entrepreneurial landscape. Through a methodological lens of experiential learning systems analysis, the paper endeavors to map out the leadership experiences within ECs, integrating rigorous literature reviews with a systems analysis approach. This methodology not only facilitates a holistic view of the leadership journeys within ECs but also underscores the necessity of weaving governance and compliance strands throughout the leadership tapestry.

The paper’s findings unravel the complex tapestry of leadership within the EC ecosystem, spotlighting the symbiotic relationship between

leadership practices and governance frameworks. It posits that the success of ECs hinges on a leadership model that is adaptable, collaborative, and deeply ingrained in an understanding of governance and regulatory nuances. This model not only fosters innovation and addresses the unique challenges faced by ECs but also charts a path for sustainable growth and success.

Structured meticulously, the paper journeys through a comprehensive review of pertinent literature, laying the groundwork for understanding the current discourse around business incubation, leadership dynamics, and the pivotal role of the “self” in leadership within the context of ECs in Section 2. Progressing to the research methodology, Section 3 outlines the experiential learning systems analysis employed, underpinned by the theoretical frameworks of Kolb (2014), Ugoani (2023), Kajamaa and Tuunainen (2022), Dalati (2015), and Bronfenbrenner (1979). This section is crucial in articulating how these frameworks collectively provide a robust foundation for analyzing leadership experiences within ECs. Section 4 encapsulates the essence of the findings and their implications for EC leaders and the broader entrepreneurial ecosystem. Section 5 reiterates the significance of the study in filling a critical gap in the existing literature and sets the stage for future inquiries into the leadership dynamics, governance, and the role of the “self” within South African university-based ECs, marking a significant contribution to the discourse on entrepreneurship and business incubation.

2. LITERATURE REVIEW

The paper explores governance and leadership dynamics in a South African university-based EC, aiming to provide theoretical insights and practical implications. The framework delves into the dynamic construct of governance and leadership within the entrepreneurship domain, extending beyond traditional managerial roles. Leadership in this context involves inspiring, innovating, and navigating the complexities of entrepreneurial ecosystems, steering toward a shared vision, fostering creativity, and adapting to the evolving landscape of business incubation. Crucially, the framework recognizes the “self” as a key determinant of leadership dynamics. The “self” encompasses the leader’s personal identity, values, beliefs, and experiences, shaping their leadership style and profoundly influencing organizational processes. Understanding the “self” is deemed pivotal for unraveling decision-making intricacies, adaptability, and the overall leadership approach within the EC.

2.1. Entrepreneurial ecosystems

Entrepreneurial ecosystems, intricate networks influenced by and influencing entrepreneurial activities, are a focal point in recent literature. Bretas et al. (2023) distinguish between start-up and scaling ecosystems, emphasizing the role of internationalized, loosely coupled systems for scale-ups. Nthubu (2021) proposes a “Jigsaw” framework for local entrepreneurial ecosystems, incorporating manufacturing centers and the United Kingdom (UK) maker spaces. Cavallo et al. (2023) address micro-foundations, introducing a value-based method for capturing interdependences.

Cowell et al. (2018) explore diverse ecosystems, emphasizing varied system requirements for different entrepreneur types. Boutillier (2022) delves into entrepreneurial ecosystems, detailing key components and actors. O’Connor and Audretsch (2023) draw an analogy with forest ecosystems, proposing a regional entrepreneurial ecosystem framework.

In business incubation, Eshun (2009) advocates for incubation as a strategy for large industrial establishments. Pena (2004) studies the impact of center support on start-up survival, emphasizing human capital attributes. Baraldi and Havenvid (2016) identify new dimensions, viewing centers as strategic actors in value creation. Sohail et al. (2023) conducted a literature review, analyzing typologies, impacts, resources, and knowledge transfer. Mrkajic (2017) proposes incubation models for institutionally void environments. Ssekiziyivu and Banyenzaki (2021) establish a positive relationship between business incubation practices and start-up sustainability in Uganda. Grebenkin and Ivanova (2012) discuss universities’ role in innovation micro-entrepreneurship. Sharma et al. (2023) explore the impact of business centers on Indian start-ups, emphasizing job generation, wealth creation, and economic development. Ferreira’s (2020) study underscores the significance of experiential learning during the hybrid phase of entrepreneurship, proposing a model for transitioning to full-time entrepreneurship. Crosina et al. (2023) address negative experiences in entrepreneurship education, exploring how planned pedagogical scaffolds and emergent individual buffers contribute to higher-order learning and an entrepreneurial mindset. Lange and Schmidt (2020) advocate for a trans-disciplinary exchange of entrepreneurial ecosystems, challenging the geographically fixed notion. Rodriguez and Lieber (2020) assess the link between entrepreneurial mindset development and career-focused education programs. Koustas and Salehi (2022) explore entrepreneurship project courses, categorizing them based on experiential learning theory. Grandori (2020) connects managerial literature, organization theory, and economic views, providing a structural view of entrepreneurship as a mode of governance based on investing in human capital. Rosli et al. (2023) identify behaviors and tendencies of entrepreneurial activities in Malaysian universities. Fauzi et al. (2020) research investigates the effects of financial and digital literacy on small and medium-sized enterprise (SME) growth managed by women. Their subsequent study in 2021 maps potential sectors for women entrepreneurs in Palembang, emphasizing government support for diverse sectors (Fauzi et al., 2021).

In navigating the complexities of entrepreneurship, systems analysis emerges as a powerful tool. Applied to entrepreneurial ecosystems, it offers a holistic framework for scrutinizing multifaceted phenomena. Systems analysis aids in dissecting landscapes, exploring interactions, and discerning emergent properties. Understanding entrepreneurial ecosystems, as stressed by Bretas et al. (2023), is essential for leadership in ECs, emphasizing the need to navigate and leverage diverse elements contributing to start-up success.

2.2. The role of the “self”

Central to the conceptual framework is the crucial role of the “self” as a determinant in leadership dynamics, encapsulating a leader’s personal identity, values, beliefs, and experiences. This uniqueness profoundly influences organizational processes, impacting decision-making, adaptability, and overall leadership within the entrepreneurial context. Lindoerfer (2008) stresses the need for adaptive innovation within organizational teams, emphasizing key practices for cultivating a learning culture. Lowe (1994) advocates a fundamental shift in organizational thinking prompted by technological advances, worker expectations, and customer demands. Allen and Roberts (2011) reflect on the evolution of leadership discussions, transitioning from individual characteristics to shared responsibilities and unified perspectives. De Cremer et al. (2006) explore the impact of self-sacrificial leadership on follower self-esteem, with collective identification mediating this relationship. Van Knippenberg (2018) delves into the relationship between leadership and identity, emphasizing the significance of social identity in the leadership process. Understanding the “self” in leadership, as discussed in these works, is pivotal for comprehending and enhancing leadership dynamics within the entrepreneurial landscape.

2.3. Systems thinking in leadership

In the entrepreneurial ecosystem, adopting “systems thinking” allows leaders to understand the interconnectedness within their environment, crucial for informed decision-making and sustainable growth. Richmond’s introduction of “systems thinking” highlights the importance of a unified framework for knowledge exchange in complex settings (Arnold & Wade, 2015). The study explores leadership dynamics in ECs through experiential learning, emphasizing the integration of leadership, the “self”, and systems analysis. Leadership’s role in fostering innovation, integrity, and personal mastery is key to breaking traditional employment dependencies, underpinned by Gibb’s (1972) trust model and Lencioni’s (2005) five dysfunctions to avoid in teams. Bronfenbrenner’s ecological model is used to examine how various environmental levels affect entrepreneurship, illustrating the complex factors that influence leadership and entrepreneurial success.

Utilizing Bronfenbrenner’s (1979) ecological model, the analysis explores how different environmental levels influence entrepreneurship. The microsystem represents the immediate surroundings impacting the enterprise and the entrepreneur’s potential. The mesosystem examines interactions between microsystems, revealing nuanced connections, while the exosystem encompasses external structures indirectly affecting microsystems. The macrosystem considers socio-cultural contexts shaping the entrepreneurial journey, and the chronosystem accounts for environmental changes over time, highlighting the evolving nature of the entrepreneurial ecosystem (Bronfenbrenner, 1979; Guy-Evans, 2024).

Bridging the research methodology with the conceptual framework involves examining

the influence of leadership and personal identity within South African university-based ECs. The following section looks at the study’s methodology, grounded in experiential learning systems analysis, which investigates leadership’s diverse nature and its effect on EC effectiveness. It critically integrates experiential insights and literature findings to explore leadership dynamics deeply. By weaving together theories from Phipps (1988) and Lumma et al. (2020) and employing Kolb’s (2014) experiential learning cycle within Bronfenbrenner’s (1979) ecological model framework, this approach offers a holistic view of the intricate interplay between leadership styles, the “self”, and the EC ecosystem, aiming to enhance leadership strategies and entrepreneurial venture growth.

3. RESEARCH METHODOLOGY

3.1. Research problem

In the evolving ecosystem of South African university-based ECs, the relationship between leadership styles and personal identity significantly impacts their effectiveness. This study investigates how leaders’ self-awareness and individual traits influence ECs’ direction and success. Recognizing leadership as diverse rather than uniform, this research underscores the importance of leaders’ values, beliefs, and experiences in shaping entrepreneurial outcomes. Utilizing experiential learning systems analysis, it aims to dissect the complex interplay between leadership and personal identity, offering insights to improve leadership strategies and support the growth of entrepreneurial ventures within these unique settings.

3.2. Conceptual framework

To provide a comprehensive understanding of leadership dynamics within ECs, our chosen methodology integrates experiential insights, literature review findings, and systems analysis. This approach involves capturing narratives and experiences from leaders within the EC, unveiling challenges, successes, and nuanced decision-making intricacies in a dynamic environment. Drawing from global perspectives, Phipps (1988) emphasizes the importance of balancing technical skills with often overlooked “soft skills” or “people” skills in leadership within outdoor educational programs. Lumma et al. (2020) exploration of the experiential dimension of empathy adds depth through a phenomenological approach, revealing subtle aspects not easily captured externally.

The literature review critically examines existing research on leadership theories, entrepreneurship, and “systems thinking”, establishing a theoretical foundation for understanding leadership dynamics. It extends into the analysis of the EC as a dynamic system, exploring interconnected elements, feedback loops, and emergent properties. Aligning these dimensions — leadership in entrepreneurship, the role of the “self”, experiential learning, and systems analysis — the conceptual framework emerges. Leadership, influenced by the “self”, becomes a reciprocal force shaping and being shaped by the entrepreneurial system. The experiential

components enrich this framework, providing depth and context for exploring leadership dynamics in running an EC. Kolb's (2014) experiential learning cycle is employed to analyze the experiential learning cycle, offering a reflective journey through concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 2014).

Applying Bronfenbrenner's (1979) ecological model as a final layer, our framework seeks to understand the interconnectedness of the entrepreneurship ecosystem's business elements. The microsystem, mesosystem, exosystem, macrosystem, and chronosystem emphasize the intricate relationships across various "environmental" levels (Bronfenbrenner, 1979; Guy-Evans, 2024). By integrating these insights, our study contributes nuanced perspectives into the complex relationship between leadership, the "self", and the unique ecosystem of a South African university-based EC. In doing so, it enriches the evolving landscape of leadership studies in the context of business incubation.

4. RESULTS AND DISCUSSION

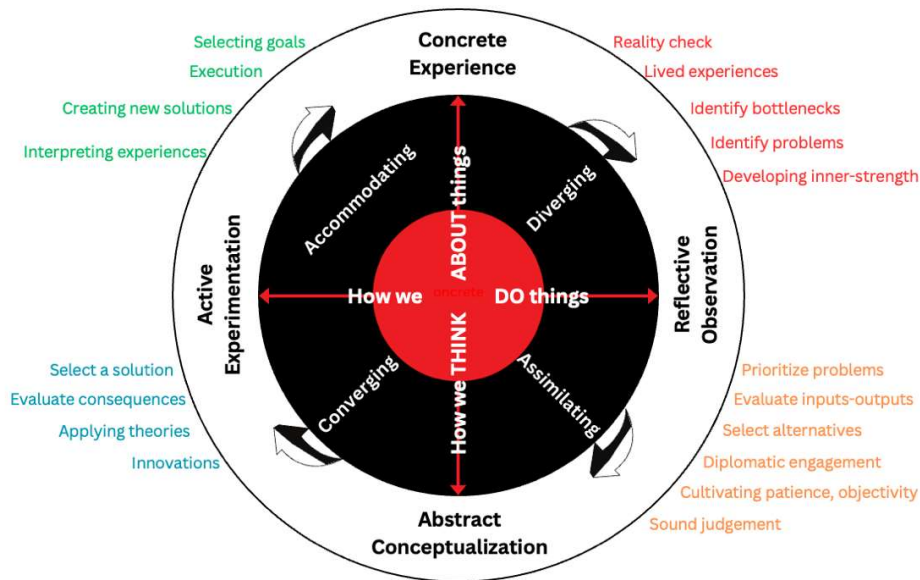
The entrepreneurial ecosystem, enriched by diverse stakeholders such as donors, angel investors, and mentors, fosters experiential learning crucial for entrepreneurial leadership development. Kolb's (2014) learning cycle model, emphasizing concrete experiences and reflective observation, offers a framework for understanding and navigating this complex environment. By integrating Kolb's model,

entrepreneurs, and EC leaders undergo a structured learning process, enabling them to adapt and grow within the dynamic entrepreneurial landscape, supported by Mezirow's (1991) theory on adult learning through experience interpretation.

4.1. Experiential learning: Application of Kolb's (2014) experiential learning cycle model

Kolb's (2014) experiential learning cycle model was used to frame and understand the lessons learned by the EC leaders. This section explores how the center leaders benefited from an experiential learning cycle. This was done by engaging in experimentation and reflection cycles. Reflection observation goes beyond an examination of assumptions and consideration of alternative choices that were presented by the EC at its birth — it involves "changing conceptual meanings, altering internal perspectives, and modifying future behaviors" (Peltier et al., 2006, p. 6). The process of reflection allowed the center managers to engage, refine, and reinforce their current fixed frames of reference on how the center was viewed by the university as a strategic (or not) entity (Argyris & Schön, 1989). The center managers also engaged in team reflection sessions on a weekly basis to enhance their frames and improve the positioning of their arguments (Garavan & McCarthy, 2008; Gear et al., 2003; Knapp, 2010). As shown in Figure 1, the reflective observation phase can be augmented when combined with team reflection.

Figure 1. Modified experiential learning cycle based on relevant literature



Source: Author's interpretation.

4.1.1. Concrete experience

In Kolb's (2014) experiential learning model, learners progress through a spiral of immediate experience, reflection, conceptualization, and active experimentation (Kolb, 2014). In the context of EC management, this model is integrated with Bolman and Deal's (2017) framing organizations approach. The structural

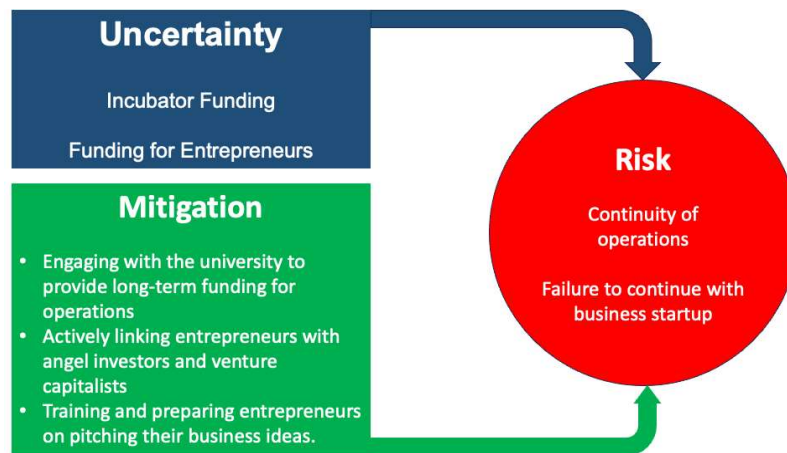
frame addresses operational risks, emphasizing clear communication channels, defined roles, and contingency plans (Bolman & Deal, 2017). Practically, this involves engaging university leadership to align EC goals with the institution's mission, enhancing funding prospects. This aligns with the political frame, involving coalition-building and stakeholder support. Through Kolb's (2014) learning cycle,

operational challenges become learning opportunities. Concrete experiences lead to reflective observation, conceptualization of strategic solutions, and active experimentation (Kolb, 2014). The EC leader engaged university leadership through regular communication, aligning initiatives with broader goals. They also highlighted the value of funding entrepreneurs to potential funders, fostering symbiotic relationships. Networking events and direct introductions between

entrepreneurs and funders were organized, transforming uncertainties into growth opportunities (Bolman & Deal, 2017; Kolb, 2014).

Figure 2 illustrates this dynamic interplay between Bolman and Deal's (2017) structural and political frames, coupled with Kolb's (2014) learning cycle, that allows the EC to not only navigate uncertainties but also thrive in a constantly evolving ecosystem.

Figure 2. System element-the environment



Source: Author's interpretation.

4.1.2. Reflective observation

During the reflective observation phase, the team concentrated on cultivating patience, objectivity, and sound judgment, while allowing the team to form their own opinions about what the center does based on their own thoughts and feelings. Additionally, this process is supported by the work of Kaner (2014). As part of the learning cycle, the team was encouraged by the chief executive officer (CEO) to "be open to influence from other perspectives, (we will) risk the discovery that the only reality (we) have is inaccurate" (Short, 1998, p. 30). This learning "from the inside-out" will give the Inhlanyelo Hub Team and the CEO in particular, "on a path that will inevitably lead (us) into an expanded reality" (Short, 1998, p. 27).

Using Bolman and Deal's (2017) four frames, a structured process to identify objectives (operational planning workshop with multiple stakeholders in entrepreneurship development) was undertaken.

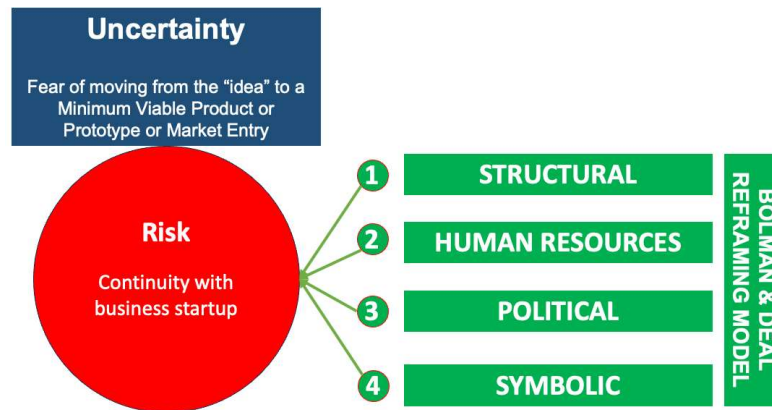
The EC team strategically engaged with the university's strategic resourcing committee and faculty deans to secure funding in alignment with the center's project plan, demonstrating political acumen (Bolman & Deal, 2017). The political frame was crucial in navigating hidden agendas and garnering support, addressing conflicts in budget allocations within the university bureaucracy (Bolman & Deal, 2017). The work of Oncken and Wass (1974) highlighted bureaucratic impacts on productivity, emphasizing the need for coalitions and power-base building (Oncken & Wass, 1974). The political frame validated the center's role in

supporting the academic agenda, transforming initial resistance into strategic partnerships. This rebalanced power dynamics and garnered support, ensuring transparency through negotiated service-level agreements with university stakeholders. Transitioning to the system element, the EC encountered challenges due to the organization's low-risk appetite, hindering change implementation (Bolman & Deal, 2017).

Figure 3 illustrates this connection between entrepreneurship and risk aversion and shows the connection between risk, and uncertainty and Bolman and Deal's (2017) frames. Researchers have shown that, on average, successful entrepreneurs tend to be less risk-averse than less successful ones and, because of this, entities or individuals who are more entrepreneurial are more likely to start risky ventures (Kihlstrom & Laffont, 1979; Knight, 1921).

While Bolman and Deal's (2017) model is useful for assisting centers in identifying mitigation strategies, it overlooks the importance of learning. The model of Kolb's (2014) experiential learning cycle is then applied as the framework for identifying risk mitigation strategies for the center. As stated previously, the uncertainty is the center's fear of moving the business idea to a minimum viable product (MVP), prototype, or taking it to market. The inherent risk is that the credibility and viability of the center could be compromised, leading to its demise. Moreover, successful startups are driven by a center's track record of success. By emphasizing Kolb's (2014) experiential learning cycle model, the center should continue to accelerate the provision of learning programs, thereby boosting its track record and validating its MVP.

Figure 3. System element: Personal and organizational learning processes using Bolman and Deal's (2017) reframing model



Note: The green-colored text boxes represent proposed mitigation strategies using Bolman and Deal's (2017) model. Source: Author's interpretation.

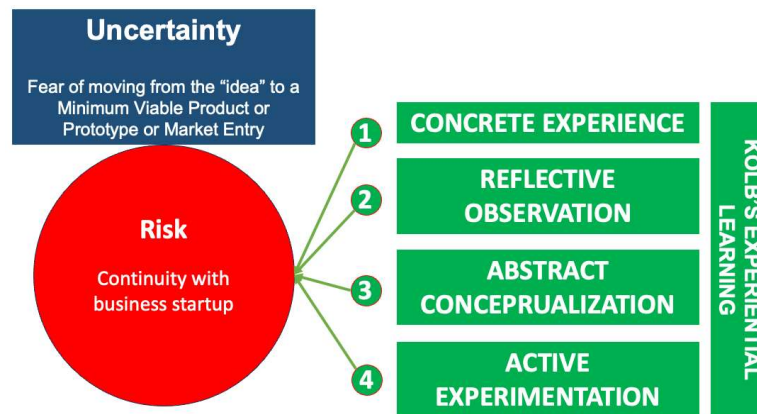
4.1.3. Abstract conceptualization

The center management team spent the bulk of 2021 in the abstract conceptualization phase developing an eight-week hybrid innovation and ideation course utilizing tried-and-tested innovation models, as well as engaging in exercises on ideation and testing prior to the prototype stage. In this mode of learning, the team and the entrepreneurs made connections between their prior experiences (everyday experiences

of problem-solving and applying theories or knowledge) to generate new innovations and solutions to teaching and training entrepreneurs in the process of ideation.

Figure 4 illustrates Kolb's (2014) experiential learning cycle to hone in on how the center emerged out of the potentially disastrous effects of the uncertainty and how those lived experiences (Husserl, 2012) are used to support its initiatives and programs for entrepreneurs.

Figure 4. System element: Personal and organizational learning processes using Kolb's (2014) experiential learning model



Note: The green-colored text boxes are the proposed risk mitigation strategies using Kolb's (2014) model. Source: Author's interpretation.

The EC, confronted with financial constraints, a risk-averse culture, a unionized workforce, and a fear of reprimand, strategically employs Kolb's (2014) experiential learning cycle model, particularly emphasizing the abstract conceptualization phase.

1. Action plans include identifying opportunities within constraints through resource-efficient initiatives, partnerships, and leveraging university resources.

2. Implementing initiatives promoting a cultural shift using training programs, showcasing success stories, and encouraging participation in workshops.

3. Stakeholder engagement emphasizes sharing the center's mission, vision, and strategic plan, emphasizing benefits and job creation.

4. Financial innovation by exploring alternative funding models and developing a compelling business case.

5. Building a supportive ecosystem that includes a network of mentors, collaboration with external entities, and addressing the fear of reprimand by fostering a culture that views failure as a learning opportunity.

6. Implementing incremental changes and a transparent communication strategy to gradually address issues over time, guiding the center's planning and decision-making processes (Bolman & Deal, 2017; Kolb, 2014).

4.1.4. Active experimentation

In the active experimentation stage, the EC engaged in prototype design and experimentation for program design, funding sources, partnerships, and governance structures, incorporating the human resource (HR) frame (Bolman & Deal, 2017). The CEO's efforts to engage the team personally and address institutional challenges demonstrated a commitment to employee needs and fostered a collaborative culture. Bolman and Deal's (2017) insights on navigating complexity contributed to process development during the active experimentation phase. The focus on building an innovative and collaborative culture aligns with Caldicott's principles (Bolman & Deal, 2017).

Kolb's (2014) experiential learning cycle model plays a pivotal role in guiding the EC leaders through a learning process that includes experimentation and reflection. This model, with stages like concrete experience, reflective observation, abstract conceptualization, and active experimentation, supports innovation and fosters a culture of collaboration. By engaging in personal reflection and leadership development, EC leaders can build a strong foundation for navigating challenges and enhancing the entrepreneurial culture within their ecosystems.

In conclusion, Kolb's (2014) model shaped EC leaders' transformative journey, fostering a holistic and adaptive approach to center management. The emphasis on personal engagement and leadership development formed the foundation for subsequent stages. Transitioning seamlessly, the paper introduces "systems thinking" as an imperative for effective center management, advocating for a comprehensive understanding of entrepreneurial processes. The integrated framework, combining experiential learning and systems thinking, empowers leaders to enhance EC resilience within the ecosystem (Bolman & Deal, 2017).

4.2. Applying Bronfenbrenner's (1979) ecological model to the "self" in leadership

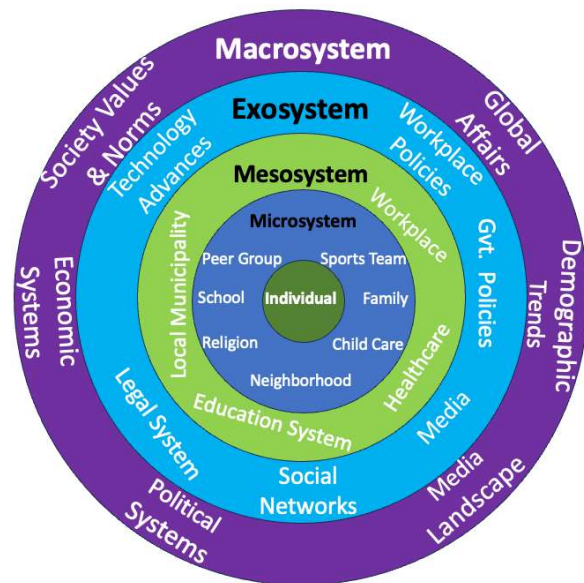
In the intricate tapestry of leadership and governance, the role of the "self" emerges as a pivotal force, weaving personal values, beliefs, and experiences into the fabric of decision-making and influence. Leaders are not merely products of organizational structures and strategies, they are complex individuals whose understanding of "self" shapes the contours of their leadership styles. This introspective journey delves into the profound interplay between the "self" and leadership dynamics, drawing inspiration from the rich insights of Bronfenbrenner's (1979) ecological model. Just as leaders navigate their internal landscape, the ecological model illuminates the external environment's impact on the "self" within the leadership and governance narrative. By applying Bronfenbrenner's (1979) framework, we embark on a holistic exploration, traversing microsystems to macrosystems, to unravel the interconnectedness between the "self" and the intricate ecosystem in which leadership unfolds. This synthesis not only enhances our understanding of leadership but offers a nuanced lens to comprehend how the "self"

resonates within the larger ecological context, fostering a comprehensive perspective on effective and adaptive leadership.

Bronfenbrenner's (1979) ecological model, also known as the ecological systems theory, is a conceptual framework that explores the multifaceted and interconnected influences on human development within various environments. This model emphasizes the dynamic and reciprocal interactions between an individual and their surrounding environments.

The ecological model consists of several nested systems, as shown in Figure 5, each representing a different level of influence:

Figure 5. Bronfenbrenner (1979) ecological model developed from relevant literature



Source: Author's adaptation.

Bronfenbrenner's (1979) ecological model comprises nested systems:

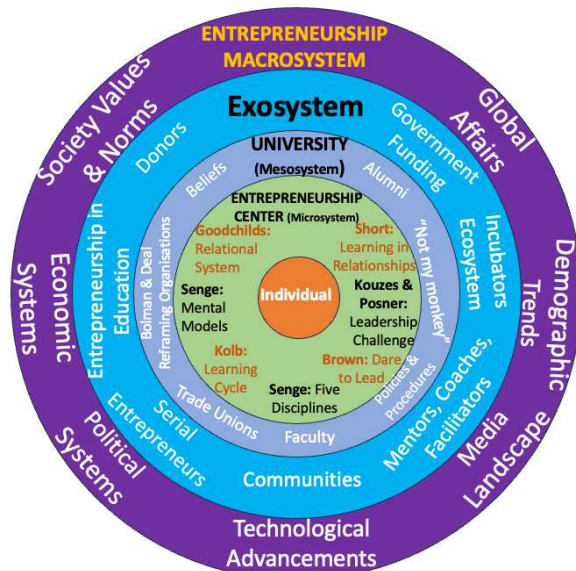
- microsystem (immediate environment);
- mesosystem (interconnections within the microsystem);
- exosystem (indirect influences);
- macrosystem (broader cultural context);
- chronosystem (temporal dimension).

Emphasizing bidirectional influences, it underscores the complexity and interconnectedness of systems, individuals, and their environments, thus providing a holistic understanding of human development. Widely used in psychology and education, the model analyzes influences across life stages (Bronfenbrenner, 1979).

Figure 6 shows the EC's systems perspective. In the center's ecosystem, the CEO, central to the team, is influenced by various elements like friends, family, church, etc. Models such as Goodchild's (2021) relational systems, Senge's (2006) fifth discipline model, and Kolb's (2014) learning cycle aid in interpreting these relationships. During staff engagements, the CEO emphasized shared leadership principles, echoing Kouzes and Posner's (2017) idea that everyone in the organization sets an example. When engaging with entrepreneurs who are at the ecosystem's core, the CEO acknowledged the influence of their behavior on learning. This approach fostered optimism and teamwork.

According to Kolb (2014), knowledge is derived and tested through experiences, aligning with Kouzes and Posner's (2017) emphasis on reinforcing values through systems and processes (Kolb, 2014; Kouzes & Posner, 2017).

Figure 6. Center systems perspective



Source: Author's adaptation from <https://www.simplypsychology.org/Bronfenbrenner.html>

In the realm of organizational development and governance, Bronfenbrenner's ecological model serves as a foundational theory, highlighting the complex interplay between an individual or entity and the various systemic layers encompassing it. This model elucidates how external factors like societal values, governance laws, and social dynamics shape and are shaped by organizational behaviors and identities. As Brown (2018) says, "Our values should be so infallible, precise, clear, and unassailable that they don't feel like a choice — they're simply a definition of who we are in our lives" (p. 189). Brown's (2018) discourse on the inviolable nature of values further underscores the essence of governance, emphasizing integrity, authenticity, and accountability as pivotal elements in navigating challenges and fostering a culture of responsibility and ethical leadership within organizations, as Brown states, "Integrity is choosing courage over comfort, right over fun, fast, or easy, and practicing your values, not just professing them" (p. 189). The author provides confidence to the center team as they pursue their passion when she states "When we own our story, we write the ending ... When we don't own our failure, setbacks, and hurt, they own us" (Brown, 2018, p. 249).

As Figure 6 shows, the university where the EC is based is a key player in the EC's ecosystem. This university has a 150-year history that has shaped its beliefs, organizational culture, values, and what has worked, and what won't work (Senge, 2006). Senge's (2006) exploration of systems thinking through the fifth discipline model introduces a transformative approach to understanding organizational challenges and opportunities. It posits that recognizing and adapting to complex interdependencies and patterns can lead to more

sustainable and effective solutions, particularly in the context of establishing and nurturing entrepreneurial centers within academic environments. This perspective is crucial in addressing the dissonance between the initiative's objectives and university management, advocating for continuous engagement with stakeholders to align efforts and achieve tangible outcomes. The gains achieved in 2021 and 2022 in establishing the center can be attributed to continuously engaging key stakeholders in "reflective practice" and "espoused theory vs theory-use" to achieve the desired results, as Senge (2006) says: "Ultimately, the payoff from integrating "systems thinking" and mental models will be not only improving our mental models (what we think) but altering our ways of thinking: shifting from mental models dominated by events to mental models that recognize longer-term patterns of change (reduced unemployment; economic development) and the underlying structures producing those patterns" (p. 190).

Bolman and Deal's (2017) insights into organizational structures and leadership styles, complemented by Oncken and Wass's (1974) examination of managerial responsibilities and Covey's (2006) emphasis on effective time management, enrich the discourse on organizational efficiency and culture, emphasizing the need to address bureaucratic challenges and delays. Covey's (2006) commentary on the work by Oncken and Wass (1974) states: "I'm not surprised that his (their) article is one of the two best-selling HBR articles ever. Even with all we know about empowerment, its vivid message is even more important and relevant now than it was 25 years ago. Indeed, Oncken's insight is a basis for my own work on time management, in which I have people categorize their activities according to urgency and importance. I've heard from executives again and again that half or more of their time is spent on matters that are urgent but not important. They're trapped in an endless cycle of dealing with other people's monkeys, yet they're reluctant to help those people take their own initiative. As a result, they're often too busy to spend the time they need on the real gorillas in their organization" (p. 6).

These theories collectively highlight the importance of leadership in fostering collaboration, and innovation, and addressing bureaucratic hurdles, ultimately contributing to the development of a conducive ecosystem for entrepreneurship. The entrepreneurial ecosystem, as delineated through Bronfenbrenner's model, encompasses a broad array of stakeholders, including sponsors, mentors, investors, and educational entities. This ecosystem thrives on a foundation of trust, collaboration, and mutual support, where resources and knowledge are shared to bolster start-up initiatives and align them with educational objectives. This collaborative environment not only facilitates the growth and success of entrepreneurial ventures but also integrates these efforts with broader educational and societal goals, such as economic development and innovation. Additionally, the collaboration with the Department of Higher Education and Training ensures alignment between entrepreneurship programs and educational objectives. This strategic partnership has led to the funding of a new program targeted at young women artisan

entrepreneurs to start their ventures in previously male-dominated trades. These initiatives enhance collaboration and knowledge-sharing among entrepreneurs, mentors, and other stakeholders. The sense of community within the EC is strengthened through regular meetups, where individuals come together to share experiences and build a supportive network.

Bronfenbrenner's (1979) model emphasizes the importance of the mesosystem, underscoring the EC's collaboration with university departments to integrate entrepreneurial projects with academic disciplines, enhancing the entrepreneurial ecosystem. The microsystem, highlighting staff and entrepreneur interactions, benefits from effective communication and relationship-building, as noted by Goodchild (2021) and governance's role in fostering a cohesive environment, supported by Kouzes and Posner (2017) and Senge's (2006) theories on leadership and systemic thinking.

The application of the Tori theory (Gibb, 1972), when woven together with principles of governance, presents a robust framework for cultivating positive work environments within entrepreneurial centers. It emphasizes the significance of trust, openness, respect, and intimacy in fostering team dynamics that are conducive to creativity, innovation, and resilience. Such an environment supports adaptable organizational structures, empowers individuals, and nurtures a culture of continuous learning and inclusivity, thereby laying the groundwork for successful collaborative endeavors in the entrepreneurial journey.

In sum, the interplay between the various theoretical frameworks and governance principles elucidates a comprehensive approach to building and sustaining a dynamic entrepreneurial ecosystem within the academic context. It highlights the critical role of values, systems thinking, effective leadership, and collaborative culture in achieving organizational objectives and fostering innovation and success in the entrepreneurial landscape.

5. CONCLUSION

In the culmination of this experiential systems analysis, the integration of governance principles equips EC leaders with practical strategies grounded in ethical considerations. The convergence of insights from narratives, argumentative reviews, and systems analysis, when viewed through a governance lens, ensures leaders possess a nuanced understanding of challenges and adaptive approaches. Governance principles guide recommendations for fostering collaboration, supporting innovation, and navigating dynamic environments, offering actionable guidance for day-to-day operations. This paper's contribution to the evolving landscape of leadership theory, within entrepreneurial contexts, gains additional depth through the incorporation of governance considerations. The exploration of the "self" in leadership, coupled with "systems thinking", within the context of governance, enriches existing frameworks, extending the applicability of leadership theories to diverse organizational settings.

Integrating experiential narratives with theoretical models and governance principles illuminates leadership's "self" within the entrepreneurial ecosystem. By applying Bronfenbrenner's (1979)

ecological model through a governance lens, the exploration delves into the "self" impact across the EC and its wider university environment. This approach, anchored in governance, enables a deep understanding of leadership influences at both micro and macro levels, highlighting the interaction between personal experiences and the broader context.

The integrated approach, illuminated by governance principles, not only addresses current gaps in understanding entrepreneurial leadership but also lays the foundation for ethical, transparent, and sustainable growth. The center CEO's mobilization of the management team, as guided by governance, underscores the significance of the "self" in driving entrepreneurial success while upholding values of innovation, ideation, design thinking, integrity, and personal mastery. The interconnected understanding facilitated by Bronfenbrenner's (1979) ecological model, guided by governance principles, informs current practices, and charts a course for future research, policy development, and strategic initiatives in the dynamic landscape of entrepreneurial leadership.

The analysis, viewed through the governance lens, not only sheds light on the current state of entrepreneurial leadership but also illuminates a path forward marked by adaptability, collaboration, and a deep understanding of the intricate dance of leadership dynamics. The systems thinking approach, analyzed through Bolman and Deal's (2017) reframing organizations lens and Kolb's (2014) experiential learning model, gains additional depth when viewed through the governance perspective. Governance principles reinforce the importance of environmental variables impacting and being impacted by the EC, emphasizing the need for leaders to employ a reframing lens for success.

The synthesis, guided by governance principles, recommends the incorporation of Senge's (2006) fifth discipline model to expand system understanding. This application of governance principles ensures that the center, as a learning organization, interacts ethically with entrepreneurs and fosters an environment of continuous learning. The recommendations further highlight the importance of trust, emphasizing governance principles in creating a team that delivers on the center's mandate. Trust, when viewed through governance, becomes a crucial value that fosters commitment, accountability, and results. The integration of governance principles into the recommendation of understanding the entrepreneurship ecological environment reinforces the idea that each center team member, including the CEO, is influenced by various elements in their system. Governance principles, viewed through the lenses of Goodchild's relational systems model, Senge's (2006) fifth discipline model, and Kolb's (2014) learning cycle, guide the interpretation of these relationships, enabling better choices, decisions, and team cohesion.

The conclusion of the paper underscores its pivotal contribution to future research in entrepreneurship, leadership, and business incubation, particularly within the unique context of South African university-based ECs. The importance of the paper lies in its nuanced exploration of the "self" in leadership dynamics, offering a fresh perspective that moves beyond conventional paradigms. By integrating experiential learning

systems analysis, the research not only advances the understanding of the intricate dynamics of leadership within ECs but also sets the stage for future investigations into the role of personal mastery, governance, and regulatory compliance in shaping effective leadership. The study's emphasis on the complex South African university ecosystem adds another layer of significance, highlighting the need for tailored leadership strategies that consider regulatory compliance, stakeholder engagement, and alignment with university missions and values. This aspect opens avenues for future research to delve deeper into the contextual nuances of leadership within diverse university settings. Moreover, the incorporation of various theoretical frameworks, including Ugoani's (2023) work on effective leadership, Kajamaa and Tuunainen's (2022) exploration of distributed leadership dynamics, Dalati's (2015) theoretical framework for universally endorsed leadership behaviors, and Bronfenbrenner's (1979) ecological model enriches the conceptual landscape. This multi-faceted theoretical foundation not only strengthens the study's findings but also invites scholars to build on these frameworks in their future research endeavors.

While the paper makes significant strides, it is essential to acknowledge its limitations. The study primarily focuses on a specific South African university-based EC, limiting the generalizability of findings to other contexts. Future research could expand the scope to include a more diverse range of ECs, considering variations in cultural, institutional, and regional contexts. Additionally, the study primarily relies on existing literature and experiential insights, presenting an opportunity for future researchers to incorporate more extensive empirical studies and perhaps longitudinal analyses for a deeper understanding of leadership dynamics within ECs over time.

In conclusion, this paper's contributions are noteworthy for their potential to inform future research agendas, offering a robust foundation for scholars to explore the intricate relationship between leadership, the "self", and the unique ecosystems of university-based ECs. The identified limitations, while inherent, pave the way for further refinement and expansion of research methodologies and contexts in subsequent studies in this dynamic field.

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