

# Entrepreneurial Leadership Effectuation in Higher Education after the COVID-19 Pandemic

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**ABSTRACT:** In the face of the new global economic challenges that the whole world is facing as a result of the COVID-19 pandemic, there is a need to give attention to the crucial role of higher education, which has a significant impact on shaping all the nation's future as it paves the road for a way out while partaking in rebuilding economic infrastructure and leading the economy to a brighter future.

This research paper explains how the theory of effectuation complements the theories of entrepreneurship. It demonstrates how using the appropriate style of entrepreneurial leadership in higher education renders an eminent role in recovery during and post-COVID-19 by creating momentum for innovative change to combat the current economic challenges.

The research paper provides a blueprint of the steps required via transformation leadership style to breed adequate culture and lead a healthy professional learning community through adopting and applying the Entrepreneurial University Model.

**KEYWORDS:** academic entrepreneurship, effectuation, entrepreneurial leadership, skill rebuilding post-COVID-19, transformational leadership and Entrepreneurial University Model

## Introduction

■ **The spread of the COVID-19 pandemic heightened the global economic challenges that we are facing. As a result, there is a need to give attention to higher education which has a significant impact on shaping the nation's future by providing the suitable answer for the future workplace after the coronavirus pandemic. Knowledge management and relevant skills are needed for effective functioning in a complex capricious global world.**

Higher Education Institutes need to equip their graduates with the knowledge management skills and techniques required by the fast-changing global labour market in rebuilding economic infrastructure and leading the economy to a brighter future. As a result, there are fundamental shifts in the types of jobs that will be available and skills demanded by employers. The new jobs that will be created in the future will require individuals with entrepreneurial, scientific, creative, and emotional skills.

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I believe that to cope with the new normal, collaboration among various industries and academicians is vital to render the desired outcomes by delivering a balanced graduate to help in rebuilding societies post COVID-19. It can be accomplished through the appropriate style of leadership exemplified in Transformational leadership, which advocates for innovative change as a means of providing solutions to combat the current economic challenges. There is a need to foster an adequate culture to breed a healthy professional learning community among students and faculty members and eventually guarantee success.

This research paper explains how the theory of effectuation complements the theories of entrepreneurship. It further proposes how the application of the adequate style of leadership can play a crucial role in shaping the new face of academic entrepreneurship. The research starts by affirming the active role of higher education in combating COVID-19, followed by highlighting the action areas of entrepreneurial activities, the definition of academic entrepreneurship, the traditional versus the emerging perspectives and providing examples from New Zealand higher education initiatives. It further examines the role of entrepreneurial leadership and its overlap with academic entrepreneurship. Finally, recommendations for achieving a successful and sustainable academic entrepreneurship are proposed through adopting the Entrepreneurship University Model.

## **The Role of Higher Education in Combating COVID-19**

Education globally has been disrupted due to the spread of COVID-19, which instigated many efforts to combat its effect on students, educators, all staff members and parents. Various organisations have conducted many initiatives worldwide to combat or minimise its effects. For example, the UNESCO Institute for Information Technologies in Education (2020), with the collaboration of global partners, initiated the “Combat COVID-19: Keep learning. Together we are on the move!” action.

Furthermore, the UNESCO Institute for Information Technologies in Education (2020) published various guidelines providing practical educational advice during COVID-19. The following are some of those publications: how to organise interactive lessons on health and relationships; guidance for students and teachers to protect their

personal data and privacy protection; guidance for online education during the COVID-19 pandemic; guidance on open education practices during the COVID-19 pandemic; living, working and learning during the time of COVID-19; and handbook on facilitating flexible learning during educational disruption.

Moreover, universities globally played a significant role in the international response to the pandemic by allocating resources, people, materials, and facilities to:

- search for a vaccine,
- provide rapid design and manufacture of ventilators,
- provide suggestions to minimise mental health challenges of self-isolation as a result of the lockdown,
- collaborate with research funders to help coordinate scientific efforts to eradicate COVID-19, and
- analyse and share data to assist policymakers and the public in informed decision-making.

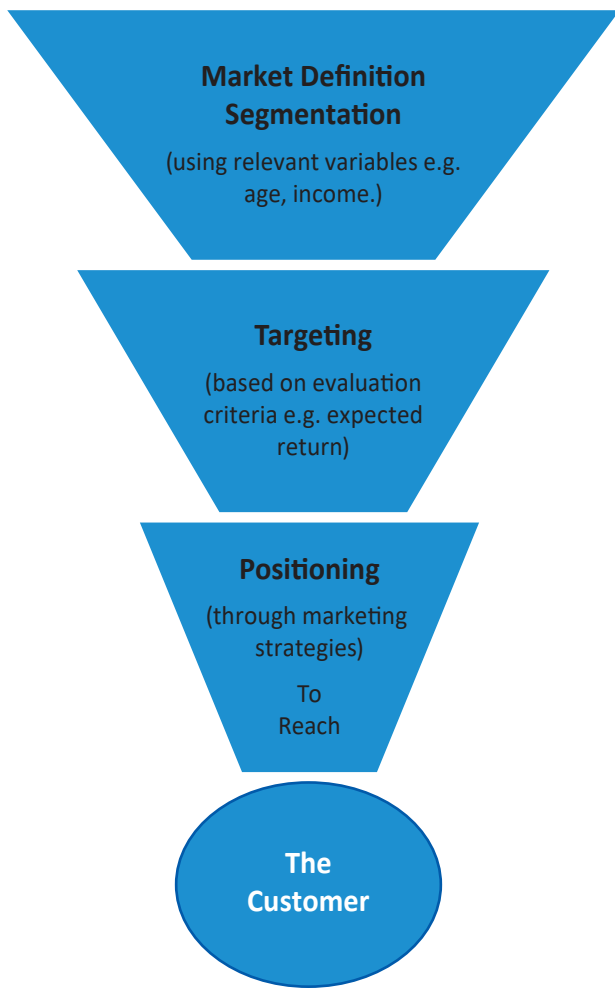
In addition to all those efforts, I believe that we need academic entrepreneurship led by entrepreneurial leadership in the recovery phase. In the following section, I explain the entrepreneurial effectuation and how this theory impacts entrepreneurial leadership in higher education.

## **What is Effectuation? – An Entrepreneurship Perspective**

The theory of effectuation was first popularised by Saras D. Sarasvathy (2001) from the University of Virginia in her paper entitled “What makes entrepreneurs entrepreneurial?”. In this paper, Sarasvathy explained the paradigm shift from the classical causation model of reasoning to the effectuation reasoning used by expert entrepreneurs. Causal reasoning (refer to Figure 1) starts with the end in mind, followed by a process to achieve it, i.e., if you can predict the future, you can control it. On the other hand, effectuation reasoning (refer to Figure 2) assumes that the future is unpredictable, but we can control it through our actions.

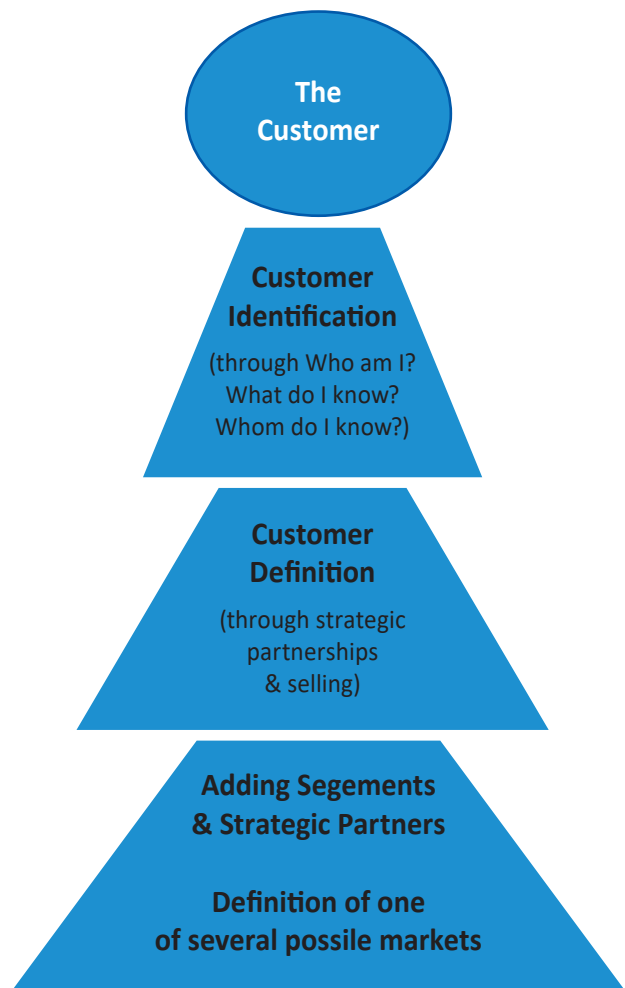
Morris, Kuratko, and Covin (2008) posited that effectuation is relevant to entrepreneurship research and teaching because it questions the universal applicability of causation-based models of entrepreneurship to the entrepreneurial process.

Figure 1. Causation Reasoning Model



Source: Adapted from Saravathy (2001a).

Figure 2. Effectuation Reasoning of Expert Entrepreneurs



Source: Adapted from Saravathy (2001a).

### Academic Entrepreneurship

Generally, entrepreneurship is defined as seeing new possibilities and seizing opportunities (Fargion et al., 2011). Due to the rise of technological commercialisation, higher education management scholars were intrigued by enhancing academic entrepreneurship. Accordingly, they studied entrepreneurship, technology, innovation management, and strategic management (Balven et al., 2018).

William Davidson (2008) defines academic entrepreneurship as the leadership process of creating economic value through:

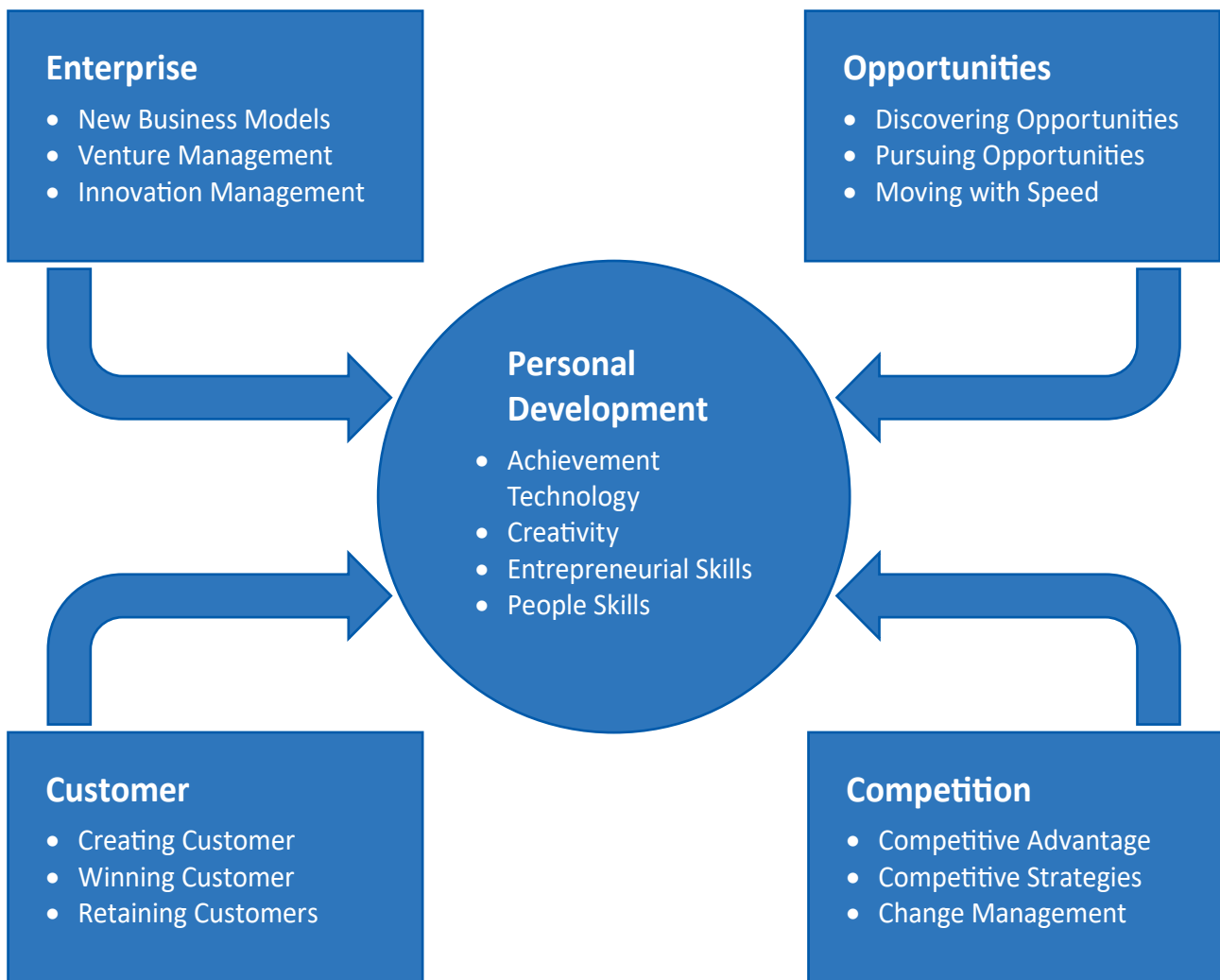
- acts of organisational creation,
- renewal or innovation that occurs within or outside the academic institution, and
- it results in research and technology commercialisation.

Academic entrepreneurship occurs at the level of individuals or groups of individuals acting independently or as part of faculty or university

systems, who create new organisations or instigate renewal or innovation within or outside the academic institutions. These individuals can be called academic entrepreneurs or entrepreneurial academics (academic intrapreneurs). Value from academic entrepreneurship is achieved through the integration of organisational and commercialisation activities (Davidson, 2008).

Carpenter (2016) emphasised five essential action areas for entrepreneurial creativity. Those action areas are illustrated in Figure 1, which shows that **enterprise**, **opportunities**, **customer** and **competition** areas depend on the fifth area, i.e., **personal development** and the capability of being creative, acquiring entrepreneurial skills and people skills. Refer to Figure 3 for further details.

Nicolaou and Birley (2003) and Shane (2004) reiterated that academic entrepreneurship is a crucial channel for commercialising scientific knowledge and significantly contributes to societies' economic and social welfare.

**Figure 3.** The Five Action Areas of Entrepreneurial Creativity

**Source:** Adapted from Carpenter (2016).

The following Table 1 demonstrates the evolution of the paradigm shift in the academic entrepreneurial perspectives from traditional to contemporary approaches.

**Table 1.** Paradigm Shift from Traditional to Contemporary Perspectives on Academic Entrepreneurship

Theme	Traditional Perspective on Academic Entrepreneurship	Contemporary Perspective on Academic Entrepreneurship
<b>Why</b> – Reason behind perspective	To generate direct financial returns from Research & Development (R&D) outputs	To generate broader human, intellectual, economic, and social values for the community and whole society
<b>What</b> – the shape of academic entrepreneurship	Academic spin-offs; licensing of intellectual properties	Student and alumni start-ups; R&D commercialisation; entrepreneurially-equipped students; local, regional, or nationwide job creation
<b>Who</b> – entities involved	Academic faculty and post-doctoral candidates	Students; alumni; on-campus industry collaborations; surrogate entrepreneurs
<b>How</b> – it is developed	Technology transfer organisations (TTOs); science parks	Incubators & accelerators; business plan competitions; boot-camps; collaborative networks with industry and alumni

**Source:** Adapted from Bae (2018).

## Academic Entrepreneurship Initiatives in New Zealand

The New Zealand government advocates and supports entrepreneurship and innovation in Higher Education in New Zealand. It has been demonstrated by the Tertiary Education Commission, a government sector, by developing the **Entrepreneurial Universities** competitive fund to attract world-leading entrepreneurial researchers to build stronger and more relevant links with existing and emerging industries and firms in New Zealand (TEC, 2019).

Entrepreneurial Universities funding is part of a broader package of initiatives to grow universities' leadership role in innovation and entrepreneurship across New Zealand. The first two entrepreneurial university appointees were from Victoria University of Wellington and the University of Auckland. They won the Government's \$35 million investment, part of the Innovative New Zealand initiative 2016 Budget. The fund was awarded over 4 years to help entrepreneurial academics set up their laboratories and teams in New Zealand universities. The research programmes aim to strengthen the New Zealand computing and media ecosystem in readiness for global digital marketing, including virtual and augmented reality (VR/AR). Also, research in human-computation interaction (Goldsmith, 2017).

Another example of academic entrepreneurship and innovation is the research conducted by The University of Auckland. The University of Auckland (2020) has been named the Entrepreneurial University of the Year at the Asia Pacific Triple E Entrepreneurship and Engagement Excellence Awards in Higher Education. Its researchers are working collaboratively with the industry on projects in the following areas:

- Manufacturing and design entrepreneurship: a cross-institutional project to provide technical, social and behavioural components of a new platform economy for manufacturing in New Zealand in which manufacturing, design and entrepreneurship are seamlessly integrated.
- Social entrepreneurship and social enterprise project
- Educating for innovation and entrepreneurship: aims to produce teaching cases and research-informed evidence about the ways formal and informal innovation, entrepreneurship and commercialisation education is being designed, delivered and assessed.

On the other hand, The University of Waikato – Waikato Management School (2018) hosted the Global Innovation & Entrepreneurship Challenge, which is part of the Groundswell Festival of Innovation (an annual event in New Zealand), held from August 27 to September 2, 2018, in Tauranga showcasing the city's innovative people and businesses. The challenge involved students from 12 New Zealand and overseas universities (e.g., the UK, Canada, and the USA).

The strategic theme of the challenge was 'Leading through Innovation'. The students were put into teams and were required to develop strategies for real-life organisations to assist them in becoming more innovative. The students presented their innovative strategies in a boardroom setting to a panel of judges drawn from the business world, including representatives from each case company (The University of Waikato, 2018).

The case competition model provided a good example of work-integrated learning, where students apply what they learn in the classroom to business practice, i.e., analysing issues and developing business strategies to help companies innovate. The competition also demonstrated how the university teaching aligns with:

- (1) what the business community expects, and
- (2) the quality of the student base.

Employers are looking for **graduates with skills** in creativity, innovation, teamwork, oral presentation and the ability to think and answer questions in an impromptu manner and under pressure, i.e., the students are trained in employability skills.

## Entrepreneurial Leadership

Traditionally Leadership studies and entrepreneurial research have been perceived as two fields of studies with numerous definitions provided for each discipline, even though there has been an overlap between the two concepts. The following definitions support the conceptual overlap.

For example, S. C. Certo and S. T. Certo (2016) defined leadership as the "process of directing the behaviour of others toward the accomplishment of some objective". While Mullins (2013) suggests that "leadership is essentially a relationship through which one person influences the behaviour or actions of other people". Academics acknowledge common leadership characteristics: leadership involves non-coercive influence, influence is goal-directed, and leadership requires followers.

Kotter (1990) posited that leadership consists of a strategic vision coupled with the ability

to motivate others through an organisation's systems, processes, and culture.

On the other hand, Stevenson and Gumpert (1985) explained that entrepreneurship is the pursuit of opportunity beyond the resources one currently controls. Accordingly, we can say that Entrepreneurial Leadership is considered a fusion of the two constructs.

Roomi and Harrison (2011) explained that Entrepreneurial Leadership is a leadership style that incorporates an opportunistic mindset whilst demonstrating a strategic vision and an ability to influence and motivate others. It requires a different logic for decision-making in business whilst recognising social and economic opportunity to enable value creation for the organisation.

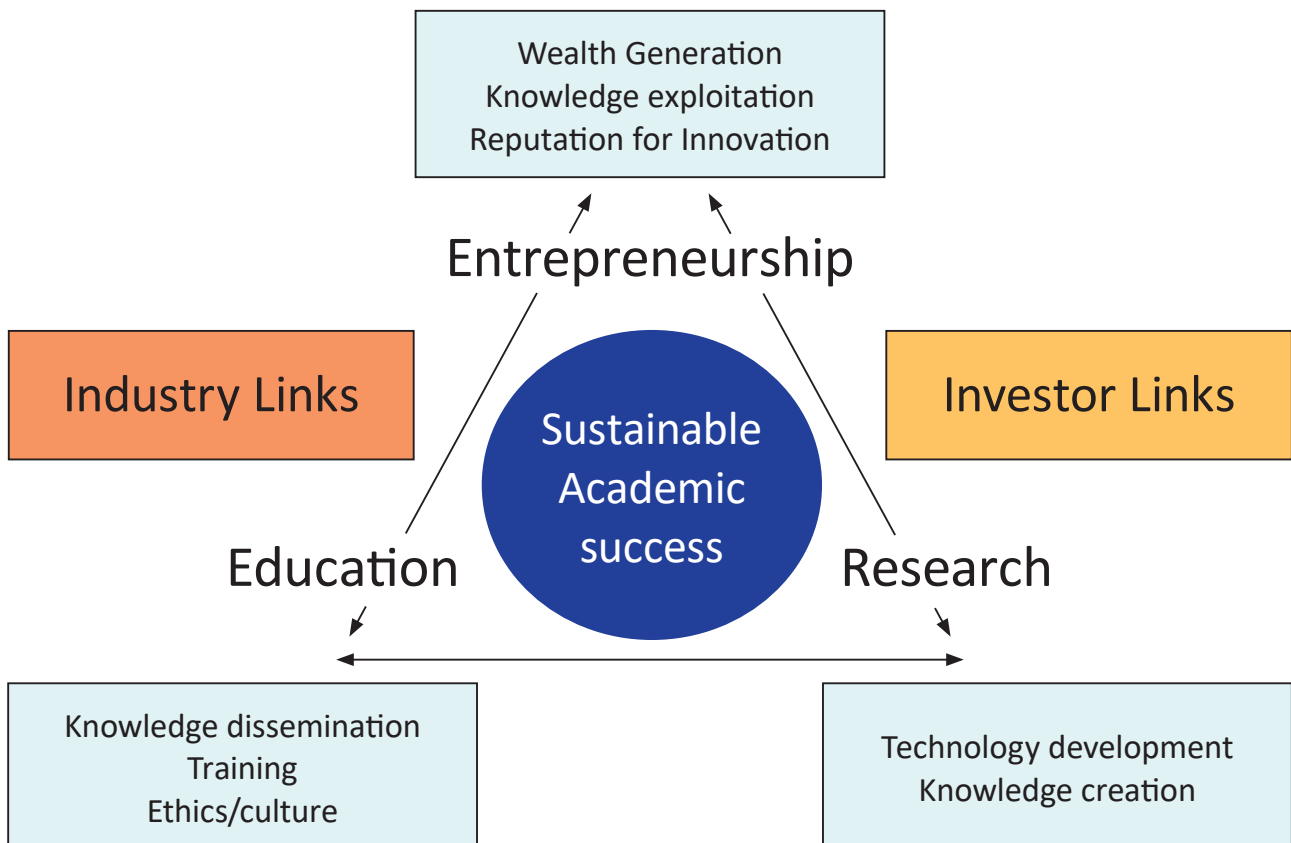
Greenberg et al. (2012) identified the following skills required for entrepreneurial leadership: vision, opportunity-focus, influence, planning, motivating others, achievement orientated, creativity, flexibility, patience, persistence, risk-taking, high tolerance of ambiguity, tenacity, self-confidence, power orientation, proactive, and internal focus of control.

Even though it is essential in higher education entrepreneurial leadership to lead research, set teaching direction and foster interaction with industry, creativity is also required to combat challenges confronting the world as the recent spread of the COVID-19 pandemic. Academicians and the industry can work together to find innovative solutions in a speedy manner.

I believe that both transactional and transformational leadership styles are adequate to lead the change during this phase of recovery from the COVID-19 pandemic as they complement each other. The transactional leadership style provides flexibility and emphasises the day-to-day interpersonal interactions to ensure that the strategies and plans render the required outcomes. In contrast, the transformational leadership styles spearhead the significant organisational change required for a radical or semi-radical change deemed essential in such a global crisis to lead the way towards sustainable academic success and survival for future generations.

Achieving sustainable academic success to combat and recover from COVID-19 relies on 3 pillars demonstrated in Figure 4.

Figure 4. Sustainable Academic Success



Source: Shaw (2010).

The following is my interpretation of Shaw’s (2010) necessary 3 pillars for achieving sustainable academic success:

**1. Entrepreneurship:**

This pillar is realised through wealth generation, knowledge exploitation, and reputation for innovation. It also requires **Industry Links** which can be achieved by Faculty development for Academic Entrepreneurship (AE), curriculum development for AE, and impeding AE values and culture of the organisation/university.

Additionally, it requires **Investor Links** to assist in funding (that could be either governmental or private sector) solutions to societal and market needs; investing in business and technological enterprises; faculty rewards and incentives; and providing Academic Entrepreneurship resources.

Various examples from New Zealand were mentioned earlier to illustrate how government support is attained by providing funding to higher education researchers. Furthermore, the collaboration of academics and industry in pursuing creative and innovative solutions to contemporary challenges is imperative.

**2. Education:**

This pillar refers to the role of higher education, which is realised through knowledge dissemination, training, apprenticeship, ethical practices and organisational culture.

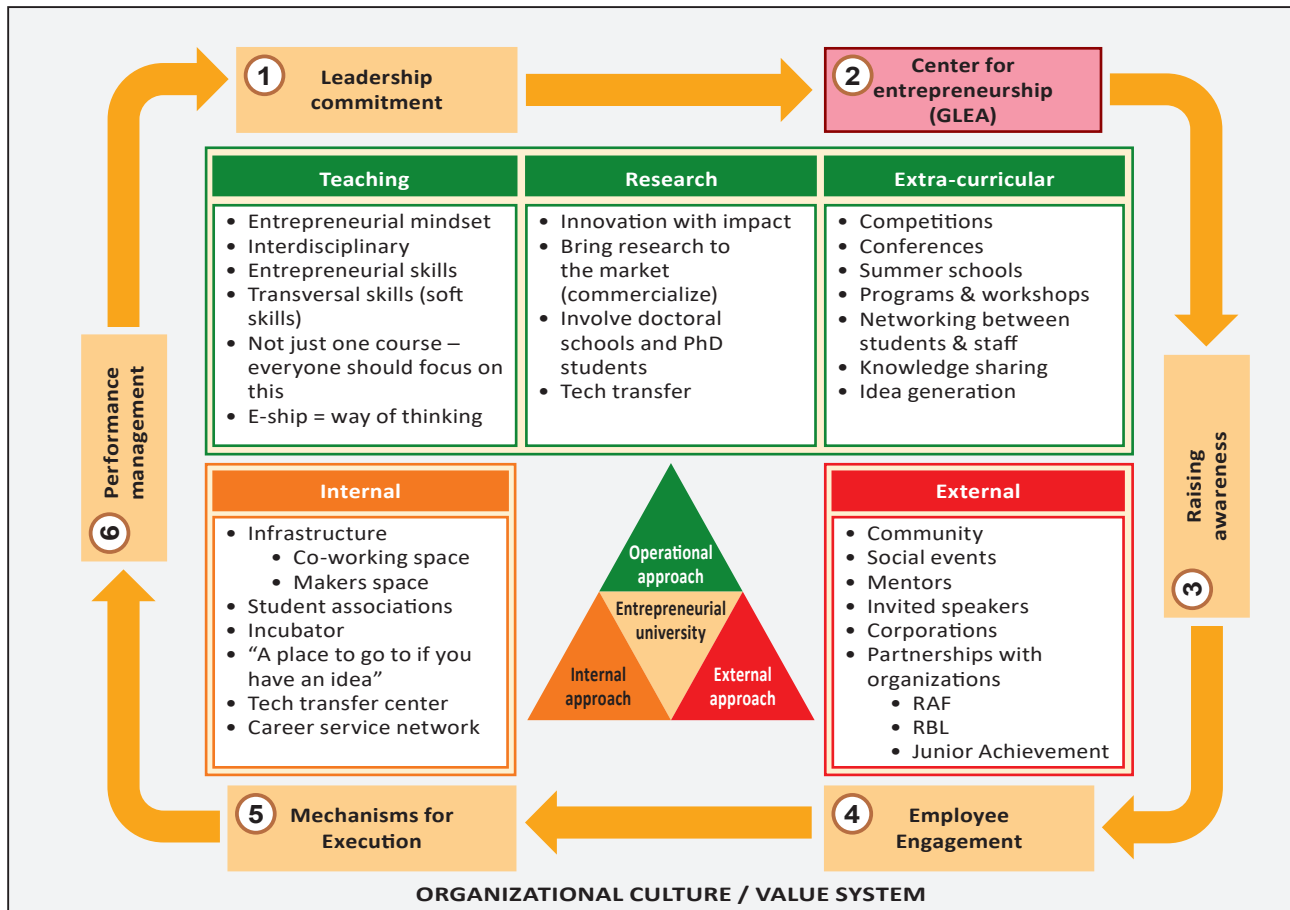
**3. Research:**

This pillar refers to technology development and knowledge creation through high-impact research, disruptive innovation, doctoral programs, scholarships, research facilities, and support structures.

**Recommended Model for an Entrepreneurial University**

I would like to propose the Grecu and Denes (2017) Entrepreneurial University Model as a means of supporting Entrepreneurial Leadership while recovering from COVID-19 and rebuilding a solid sustainable higher education system. Figure 5 provides a detailed illustration of the model and its essential steps to be followed.

Figure 5. Entrepreneurial University Model



Source: Grecu and Denes (2017, p. 5).

The aim of this model, as elucidated by Grecu and Denes (2017), is to provide a structure that will coordinate and monitor the implementation of the required steps to successfully transform the university into an entrepreneurial one. The model proposes the following 6 steps:

1. The commitment of the leadership and university administrators is the first and most important step as they are the ones who set the tone and culture of the whole organisation.
2. Creating a Centre for Entrepreneurship that demonstrates the commitment and seriousness of top management and leaders.
3. Raising awareness of the importance of entrepreneurship for the economy and the university's future. This ongoing process should target students, alumni, faculty, administrative staff, the whole community, and the business environment.
4. Engaging the employees in this process to gain support and accountability. It is not easy, but it is essential to gain everybody's commitment to including stakeholders while executing the model is also necessary to guarantee the involvement and support of the entrepreneurship approach.
6. The final step is ensuring the institute invests in an adequate and reliable performance management system.

## Conclusion

This paper discussed entrepreneurial leadership's role in the recovery phase from COVID-19. In order to achieve this, it requires a solid, sustainable, and successful entrepreneurial university supported by adequate entrepreneurial leadership.

I believe that both **Transactional** and **Transformational leadership styles are the backbone of entrepreneurial leadership that** can deliver the suitable type of vision and values to be used in the higher education sector to stipulate an opportunity for academics and institutions to realise that learning has to be practical, as well as cost-effective.

Accordingly, there must be a link between idea and practice to lead a new era of transformation in all aspects of the new entrepreneurial university system.

Furthermore, the tertiary education sector should be investing in the infrastructure of this system starting from:

- utilising innovative technology,
- re-development of curriculum to fit the global changes,

- re-development of courses to match those changes,
- upskilling and reskilling the workforce either management, faculty and administration staff who are the backbone and executors of the new system.

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