

RESEARCH ARTICLE:

## Cultivating an Entrepreneurial Mindset to Address Unemployment through Innovation, Adaptability and Interdisciplinary Research

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### Abstract

*In the wake of rising global graduate unemployment, the number of graduates in tertiary institutions is increasing annually, leading to a high demand for job creation. The growing job demand in South Africa has considerably strained the government. Research and innovation have been observed to be a viable source of job creation due to the possibilities of new discoveries that could foster job creation. The challenge associated with this approach is that research in institutions of higher learning is conducted solely for qualifications rather than the possibility of starting businesses. Society and the family system also contribute to this belief system: 'go to school so you can get a good job.' The focus should be on cultivating an entrepreneurial mindset amongst the university graduates rather than depending on the vanishing existing jobs. Thus, there is a need for an entrepreneurial mindset among university graduates. Incorporating this into the education system will positively affect university graduates finishing and starting their businesses after graduation. Therefore, using a systematic literature review methodology, the study highlights the importance of interdisciplinary research, incorporation of business developments into the institutional general curriculum, government investment in research, and institutional students' support to convert research into money-making ideas.*

**Keywords:** job creation; self-employment; higher education; sustainability; entrepreneurship

### Introduction

The rising unemployment rate has become a global concern that requires urgent attention in the form of entrepreneurial skills or mindset. As of 2024, the global unemployment rate has surged to 6.5%, with youth unemployment rates in some regions exceeding 20% (Gern *et al.*, 2024). An entrepreneurial mindset is a set of attitudes, behaviours, and skills commonly associated with and critical for successful entrepreneurs (Cui and Bell, 2022). This way of thinking emphasizes creativity, innovation, risk-taking, and the ability to see opportunities where others might see obstacles. It also involves the ability to adapt to change and continuously innovate. An individual with an entrepreneurial mindset typically possesses a strong sense of self-motivation and a willingness to act to achieve their goals. These sets of people are comfortable with uncertainty and are not deterred by failure or setbacks but see them as opportunities to learn and grow. Entrepreneurial mindset is not limited to those who own or are starting their own business. It can be a valuable asset in any field or industry, as it can help individuals develop a proactive and innovative approach to problem-solving and cultivate a mindset of continuous learning and improvement.

Several authors have provided more insight regarding the concept of entrepreneurial mindset: (i) Cui and Bell (2022), explained that an entrepreneurial mindset is an attitude that equips individuals with the ability to identify opportunities and create new ventures, (ii) Lindh (2017), stated that entrepreneurial mindset is a set of cognitive, affective, and behavioural characteristics that enable individuals to identify and exploit opportunities in a variety of settings, (iii) Pollio (2022), highlighted that an entrepreneurial mindset is characterized by a willingness to take risks, focus on innovation, and commit to continuous learning and growth, (iv) Adebayo and Rachel (2020),

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explained that entrepreneurial mindset involves a bias toward action, a willingness to experiment and learn from failure, and a desire to create value for customers and stakeholders, and (v) Fereidooni (2014), stated that entrepreneurial mindset is essential for success in today's rapidly changing and unpredictable business environment. Overall, an entrepreneurial mindset is a critical factor for success in entrepreneurship, which involves a combination of attitudes, behaviours, and skills that enable individuals to identify and exploit opportunities, take risks, and continuously innovate. Therefore, the review article examines the characteristics and development of an entrepreneurial mindset, the importance of interdisciplinary research, and government and university contributions.

An extensive literature review was conducted focusing on entrepreneurial mindset and interdisciplinary research. A systematic literature review was done focusing on recent publications on the subject matter. Specific secondary data from relevant publications were used to evaluate the impact of institutions on entrepreneurial mindset (Spin-off). This includes extensive citations and structured reviews of existing literature on the entrepreneurial mindset and its effect on job creation (Korber and McNaughton, 2018).

### **Characteristics of an Entrepreneurial Mindset**

An entrepreneurial mindset is characterized by specific skills and attitudes that enable individuals to identify and pursue opportunities, create value, and innovate. To possess an entrepreneurial mindset, several key characteristics must be developed, including creativity, innovation, risk-taking, resilience, adaptability, and a strong work ethic. Here are some key characteristics of the entrepreneurial mindset:

- i. **Opportunity identification:** Entrepreneurs identify potential business opportunities that others may not see. To develop this skill, individuals can stay informed about industry trends, engage with customers to understand their needs and cultivate a creative mindset. According to the Global Entrepreneurship Monitor report (2019), "opportunity identification is a critical component of entrepreneurship."
- ii. **Risk-taking:** Entrepreneurs are comfortable taking calculated risks and making bold decisions under uncertainty. To cultivate this skill, individuals can practice decision-making under uncertainty, try stepping outside their comfort zone, seek feedback from trusted advisors, and learn from failures. As noted in an article by Forbes (2019), "entrepreneurship is about taking risks and stepping outside your comfort zone." Similarly, Sarasvathy (2001) explained that "entrepreneurial decision-making involves managing uncertainty and making decisions under extreme uncertainty."
- iii. **Creativity:** Entrepreneurs need to be able to generate new ideas and think outside the box. Brainstorming sessions, keeping a journal, or exposing oneself to new experiences and perspectives help to cultivate creativity. According to a study by Runco and Acar (2012), "Creative people are more open to new experiences, curious, persistent, and willing to take risks".
- iv. **Innovation:** Entrepreneurs constantly seek new and better ways to solve problems and create value for their customers. To foster innovation, individuals can experiment with alternative approaches, stay informed about emerging technologies, and engage with customers to understand their problems. According to a study by the Global Entrepreneurship Monitor (2020), "innovation is a key driver of entrepreneurship."
- v. **Persistence:** Entrepreneurs often face challenges and obstacles but persist in pursuing their goals. To develop this skill, individuals can set clear priorities, stay organized, avoid procrastination, and seek inspiration from successful entrepreneurs. According to a study by Duckworth *et al.* (2007), "grit and persistence are important components of the entrepreneurial mindset, as they enable individuals to stay focused on their goals despite setbacks and obstacles."
- vi. **Resilience:** Entrepreneurs face many setbacks and failures on the road to success, so resilience is critical. To build resilience, individuals can practice mindfulness, set realistic goals, seek social support, and learn from failures. According to a study by Luthans and Youssef (2007), "resilience is a critical component of the entrepreneurial mindset, as it enables individuals to bounce back from adversity and stay focused on their goals."
- vii. **Adaptability:** Entrepreneurs must adapt to changing circumstances and pivot their business strategies when necessary. To improve adaptability, individuals can stay informed about industry trends, seek

feedback from customers and employees, and be open to new ideas. As noted in an article by the Harvard Business Review (2019), “successful entrepreneurs can adapt their strategies and pivot when necessary.”

- viii. Work Ethic: Entrepreneurs must be willing to put in long hours and hard work to achieve their goals. To cultivate a strong work ethic, clear priorities must be set, and the individual needs to stay organized, avoid procrastination, and seek inspiration from successful entrepreneurs. According to a study by Duckworth *et al.* (2007), “grit is defined as passion and perseverance for long-term goals, predicts success in various domains, including entrepreneurship.”

By developing these key characteristics, individuals can cultivate an entrepreneurial mindset that can help them succeed in starting and growing a business. Several other authors have explained their understanding of the characteristics of an entrepreneurial mindset. The summary of their explanations is presented in Table 1. As observed in Table 1, similar characteristics were reported by the authors, indicating a strong correlation and validity of these characteristics.

**Table 1:** Characteristics of entrepreneurial mindset.

Characteristics	Explanation	Reference
Self-efficacy and confidence	The belief in one's ability to achieve goals and the confidence to pursue opportunities.	
Critical thinking and problem-solving	The ability to analyse situations critically and develop innovative solutions to complex problems.	
Creativity and innovation	The drive to create new ideas and improve existing processes.	Green <i>et al.</i> (2020)
Risk-taking	Willingness to take calculated risks and view failures as learning opportunities.	
Flexibility and adaptability	Ability to adapt to changing conditions and pivot strategies when necessary.	
Collaboration and team building	Working effectively with others to achieve common goals.	
Proactive approach	Key characteristics are identifying consumer needs, initiating changes, and taking a user-centred approach.	
Critical thinking	Involves action competence, system analyses, stakeholder analyses, and strategic and operational decision-making.	Uvarova <i>et al.</i> (2021)
Initiative	Willingness to take risks, self-efficacy, enthusiasm, and engagement to change	
Sharing and reflection	Embracing diversity, building openness and trust, and sharing objectives	
Innovative thinking	The ability to think creatively and come up with new ideas or solutions	
Risk-taking	Willingness to take calculated risks to achieve potential rewards	
Value creation	Focus on creating value for customers and stakeholders through novel approaches.	
Autonomy and competence	A drive for autonomy in work and mastery of new skills	El Atmani <i>et al.</i> (2023)
Proactivity and initiative	A proactive approach to opportunities and challenges, taking the initiative to act	
Resilience and adaptability	The capacity to withstand setbacks and adapt to changing circumstances	
Social capital	Leveraging networks and relationships to identify opportunities and mobilize resources	

### Developing an Entrepreneurial Mindset

According to Bosman and Fernhaber (2018), cultivating this mindset necessitates deliberate and recurrent engagement with genuine learning encounters that are seamlessly incorporated into the curriculum. Utilizing online discussion prompts is recommended to consistently expose students to entrepreneurial thinking. The authors further explained that prompts should be intentionally crafted to incorporate underlying course material, foster the growth of professional abilities, and provide several chances for practical application and thoughtful contemplation. The objective is to transition from training focused on theoretical concepts to a more practical and experienced approach, emphasizing hands-on learning. Learning an entrepreneurial mindset involves developing a combination of attitudes through formal education, practical experience, personal development, behaviours, and skills that enable individuals to exploit and identify opportunities, take risks, and unceasingly modernize. Here are some steps that can be taken to learn about an entrepreneurial mindset (Zupan *et al.*, 2018; Morris and Tucker, 2023):

- i. Reading and studying about entrepreneurship: Read books, articles, and case studies about successful entrepreneurs and their businesses. This will help to gain knowledge about the entrepreneurial process, including idea generation, business planning, marketing, and financing.
- ii. Developing a growth mindset: Adopting a growth mindset that embraces challenges, learns from failures, and values continuous learning and growth.
- iii. Practicing creativity: Cultivating a creative mindset by engaging in activities that spark imagination and inspire thinking outside the box.
- iv. Taking calculated risks: Embracing risk-taking by identifying and assessing potential risks, developing contingency plans, and taking calculated risks that align with the goals and values of an entrepreneur.
- v. Networking with other entrepreneurs: Connecting with entrepreneurs who can offer support, advice, and guidance. Attend entrepreneurial events, conferences, and workshops to expand your network and learn from experienced entrepreneurs.
- vi. Taking courses or attending workshops: Many universities and organizations offer courses and workshops on entrepreneurship that can teach the skills and knowledge needed to start and run a business.
- vii. Seeking mentors: Find a mentor who has experience in entrepreneurship and can provide guidance and support in developing an entrepreneurial mindset.
- viii. Embracing failure: Failure is an inevitable part of entrepreneurship, and developing a mindset that sees failure as an opportunity to learn and grow is critical for success.
- ix. Focusing on problem-solving: Successful entrepreneurs are problem-solvers who can identify and address challenges in their business. Developing a problem-solving mindset can help identify and address challenges in your own business.
- x. Experimenting with new ideas: Act on the ideas by experimenting, testing, and iterating. This will help in learning what works and what does not work to refine the approach over time.

Possessing an entrepreneurial mindset is a journey that requires time, effort, and persistence (McMullen and Kier, 2016). By taking these steps, developing the attitudes, behaviours, and necessary skills to be successful entrepreneurs becomes an easy and enjoyable process.

### **Change in Orientation Regarding the Idea of Seeking Traditional Employment**

Changing the orientation regarding the idea of looking for a white-collar (traditional employment) job after graduation can be a complex process, which requires a shift in mindset and an exploration of alternative career paths. This is an essential step towards fostering an entrepreneurial mindset. Encouraging creativity and innovation can help students see the potential for entrepreneurship as a viable career option, irrespective of the course of study. This way of thinking can encourage students to explore alternative career paths and consider starting their businesses based on the subject matter addressed in their research study. Intentional inclusion of entrepreneurship education across all the university curricula will go a long way to solving the unemployment problem as the students will be motivated and encouraged to start and own their businesses. Entrepreneurship education that emphasizes innovation and creativity has been proven to positively affect individuals' entrepreneurship attitudes (Kauffman Foundation, 2015). Similarly, Morris *et al.*, (2018) explain that entrepreneurship education can enhance students' interest in entrepreneurship, thus reducing their interest in working in traditional jobs as it is commonly done.

Another critical factor that can encourage students not to look for jobs after their studies but to create jobs is to develop business skills in finance, marketing and management, which can help university graduates better understand the practical concepts of starting and running a business. When students gain knowledge in finance, marketing, and management, they feel confident about starting and owning their businesses (Novy-Marx and Velikov, 2014). Exposure to entrepreneurship through engagement with entrepreneurs can stimulate positive

energy and attitudes within the graduates, leading them to start their businesses (Novy-Marx and Velikov, 2014). Table 2 highlights ways to reduce reliance on existing jobs and boost job creation.

**Table 2.** Alternatives to the reliance on existing white-collar jobs.

Intervention	Description	References
Foster a growth mindset	This can help graduate students see failure as a learning opportunity and cultivate the resilience needed to succeed as an entrepreneur	Sutter <i>et al.</i> , 2019
Provide support and resources	The proper support and resources in the form of mentorship, funding, and networking opportunities can help graduate students overcome the barriers associated with being entrepreneurs, thus providing the needed opportunity to launch their businesses successfully and succeed.	Charbonneau, 2014
Foster a culture of innovation	Fostering a culture of innovation can encourage graduate students to think creatively and pursue entrepreneurial ventures.	Azoulay <i>et al.</i> , 2020
Highlight the benefits of entrepreneurship	Highlighting the benefits of entrepreneurship, such as being your boss, having control over your career path, and potentially earning more money, can help shift graduate students' mindset away from traditional employment, thus, providing economic opportunities and personal fulfillment.	Global Entrepreneurship Monitor 2020
Promote non-traditional career paths	This includes freelancing, consulting, or working in the gig economy. Graduate students can explore an alternative career path outside of conventional white-collar jobs.	Wheelahlan and Moodie, 2022

By encouraging entrepreneurship, promoting non-traditional career paths, highlighting the benefits of entrepreneurship, providing access to resources, fostering a culture of innovation, developing business skills, fostering a growth mindset, and providing support and resources, universities can help shift the perspective of students away from looking for existing white-collar job (traditional employment) after graduation and promote a more entrepreneurial mindset or associated ventures (Hägg and Gabrielsson, 2020). This can be effectively achieved by incorporating extensive entrepreneurial education into the curriculum across all disciplines (Bosman and Fernhaber, 2018).

### Conduct Research with the Mindset of Starting a Business

Conducting a university research study with the mindset of starting a business along the line of study requires a strategic approach that balances academic rigor with practical application. Research should focus on contributing to scholarly knowledge and identifying opportunities for innovation and business creation (Bosman and Fernhaber, 2018). This approach will provide valuable insights into the potential commercial applications of the research findings that can lead to money-making opportunities and self-sustenance. Here are some steps for conducting research with the mindset of starting a business, specifically within the context of university research and the line of study:

- i. Identify a research question that aligns with the potential business idea: The first step is to identify a research question that aligns with the potential business idea. This can help gather insights that are relevant to the business goals. According to Cooper and Dunkelberg (1987), entrepreneurial-based research questions should focus on relevant potential business opportunities.
- ii. Conduct a patent search: If the research findings have the potential to be patented, conducting a patent search is very important to ensure that the research is not infringing on existing patents (Entrepreneur, 2021).
- iii. Evaluate the market: Before starting the research study, an important thing to do is to evaluate the market for the potential products or services that could be developed based on the research findings (Davis, 1993). This can help determine the demand for the product or service and the potential competition.

- iv. Identify potential commercial applications: Before starting the research study, it is essential to identify potential commercial applications for the intended research findings. This can help guide the research focus and ensure the results have practical applications.
- v. Conduct a feasibility study: Before investing significant resources into research that can prompt business ideas, conducting a feasibility study will be a vital approach. This can help assess the business idea's viability and identify potential challenges (Arenius and De Clercq, 2005).
- vi. Build a business plan: Based on the potential commercial applications and market evaluation, the next important thing to do is to build a business plan that outlines the critical components of the research-based business, such as the target market, marketing strategy, and financial projections (O'Keeffe, 2020). A good business plan can help secure funding from potential investors.
- vii. Apply research findings to your business idea: Finally, use the research findings to inform business strategy and decision-making. This can help make informed decisions about the business idea's viability and refine the strategy as needed (Westhead and Ucbasaran, 2001).

Research is a critical step in starting a business, as it can provide valuable insights into the market, customers, and competitors. Therefore, by conducting a university research study with the mindset of starting a business (entrepreneurial mindset), the students can ensure that their findings have practical applications and can be translated into commercial products or services, which leads to job creation.

### **Impact of Interdisciplinary University Research on Job Creation**

Interdisciplinary university research can significantly impact job creation by fostering innovations that lead to new products, services, and start-ups (Cui, 2021). Researchers and students can combine diverse perspectives and expertise by working across various disciplines, leading to marketable and holistic solutions (Bosman and Fernhaber, 2018). This approach will enhance the entrepreneurial mindset and prepare the students to contribute to the economy through job creation and business development. Interdisciplinary university research is a collaborative approach that involves researchers from different disciplines working together on a common problem or project (Morss *et al.*, 2021). This approach can be a powerful tool for job creation, as it can lead to the development of new technologies, products, and services that can create new job opportunities. Innovative solutions help to solve a global problem, such as a lack of jobs. The combined effort of several students with the common goal of developing a profitable business that can provide employment for them and others is achievable through an interdisciplinary research project.

Here is a detailed explanation of how interdisciplinary university research can help create jobs:

- i. Developing new technologies and industries: Interdisciplinary university research can lead to developing new technologies and industries that can create new job opportunities. A journal article published in Energy Procedia reported that interdisciplinary research in renewable energy could lead to the development of new technologies that can create jobs (Kühn, 2016). By developing new technologies, researchers can create new job opportunities in growing and expanding industries such as engineering, computer science, and biotechnology.
- ii. Addressing societal challenges: Interdisciplinary university research can also address societal challenges, such as healthcare, food security, poverty, inequality, and sustainable development, creating new job opportunities. Ramaswamy and Marciniuk (2020) found that interdisciplinary research in sustainable development can create new jobs in new industries due to the ready market needing a better and smarter way of doing things for improved productivity and performance. By addressing societal challenges, researchers can create new job opportunities in industries that will enhance people's lives and the environment.
- iii. Fostering entrepreneurship: Interdisciplinary university research can foster entrepreneurship, which can create new businesses and job opportunities. Interdisciplinary research can create a conducive environment for student entrepreneurs by bringing together researchers from different disciplines with complementary skills and knowledge. By fostering entrepreneurship, students can create job opportunities in startups and new businesses rather than just focusing on finishing their studies and

collecting a certificate (Oganisjana *et al.*, 2014). This research method can help foster entrepreneurial activity and lead to job creation.

- iv. Collaborating with industry partners: Interdisciplinary university research can be strengthened by collaborating with industry partners, which can lead to the development of new products and services, as well as job opportunities in fields such as manufacturing, finance, and technology. Collaboration between institutions and industries is vital in economic development, contributing to social inclusion, qualified job creation, and company competitive advantages (Figueiredo and Fernandes, 2020). The collaboration between universities and industry partners can lead to the creation of new job opportunities in emerging industries.

Overall, interdisciplinary university research can be a powerful tool for job creation. Researchers can develop new technologies, address societal challenges, foster entrepreneurship, and create new job opportunities by working together across diverse disciplines and collaborating with industry partners. By doing so, universities can contribute to economic growth and social development while addressing some of our most pressing challenges.

### **Contributions from Government and Institutions for the Development of Entrepreneurial Mindset**

Entrepreneurship has been reported to jumpstart many economies worldwide where all the parties involved played their roles effectively (Green *et al.*, 2019). Government and university institutions can play a significant role in promoting an entrepreneurial mindset among students and researchers. The South African government and universities have recognized the importance of promoting an entrepreneurial mindset to address high levels of unemployment and drive economic growth through various initiatives and programs (Nicolaidis, 2011). To support entrepreneurs, the South African government has established various programs, policies, and initiatives to promote and support entrepreneurs through tax incentives, grants, subsidies, funding schemes, and mentorship programs. These government supports include the Small Enterprise Development Agency (SEDA) and the National Youth Development Agency (NYDA). SEDA is an agency in the Department of Small Business Development (DSBD) that provides business development support to small businesses (Small Enterprise Development Agency, 2023), while the NYDA offers funding and training to young entrepreneurs through the Entrepreneurship Development Programme (EDP) (National Youth Development Agency, 2023). According to a report by the Global Entrepreneurship Monitor (2018), government support has significantly increased entrepreneurial activity in South Africa over the past decade. The government aims to encourage entrepreneurship and job creation by providing support and incentives.

Many South African universities have established entrepreneurship programs and support services to promote an entrepreneurial mindset among their students. These programs should be for all students, irrespective of the course they are enrolled in. For example, the University of Cape Town's Bertha Centre for Social Innovation and Entrepreneurship provides training, incubation, and funding support for start-ups and mentorship (University of Cape Town, n.d.). According to a report by the World Economic Forum, entrepreneurship education at South African universities has effectively developed students' entrepreneurial skills and intentions (Schwab, 2015). The University of Pretoria offers a free entrepreneurship program that includes training, mentorship, and access to funding (University of Pretoria, 2017). By offering these programs, universities aim to equip students with the skills and knowledge to start and grow their businesses. The joint effort between the government and the universities in the form of collaboration is another welcome initiative. The South African government has partnered with universities to promote entrepreneurship and innovation. For example, the Department of Science and Innovation (DSI) has collaborated with universities to establish the Technology Innovation Agency (TIA), which provides funding and support for technology-based start-ups (Technology Innovation Agency, 2021). TIA was established to support the commercialization of research from South African universities. Government-university partnerships have effectively promoted technology transfer and innovation in South Africa.

Lastly, South African universities have made efforts to commercialize their research and support technology transfer that promotes entrepreneurship and job creation. For example, the University of the Witwatersrand has established a technology transfer office that assists researchers in commercializing their research findings (University of the Witwatersrand, 2016). The University of Johannesburg has established a Centre for Entrepreneurship and Innovation to promote innovation and entrepreneurship (University of Johannesburg, n.d.). Table 3 shows a qualitative comparison of some universities. Tshwane University of Technology's technology transfer and commercialization strategy is centred on promoting innovation, developing an entrepreneurial culture

in the university, and easing technology transfer to the marketplace (Yende and Haskins, 2023). The authors strongly emphasize partnerships with businesses and other organizations to assist in commercializing research findings. TUT seeks to close the knowledge gap between theoretical research and real-world applications, promoting local and national economic growth. Universities aim to create new business ventures and job opportunities by commercializing research. According to a report by the National Advisory Council on Innovation, the commercialization of university research can potentially create new businesses and jobs in South Africa (Boraine *et al.*, 2006). Overall, the South African government and the universities have significantly contributed to promoting an entrepreneurial mindset and supporting entrepreneurs through various initiatives and programs. By providing support, resources, and training to entrepreneurs and researchers, they create a culture of innovation and entrepreneurship that has the potential to drive economic growth and job creation.

**Table 3:** A qualitative comparison of some universities.

University	Date of establishment of Technology Transfer Office	Number of Spin-off Companies Supported	Comments
University of the Witwatersrand (Wits)	2006	>10	Wits's strong technology transfer office helps researchers turn their discoveries into commercially viable products. Thanks mainly to this office, several new businesses have been founded, especially in biotechnology and information technology. (University of the Witwatersrand, 2016)
University of Johannesburg (UJ)	2006	5 - 7	Students and professors are encouraged to innovate and become entrepreneurs by UJ's Centre for Entrepreneurship and Innovation. The university has effectively promoted spin-offs in the applied sciences and engineering, which has helped create an entrepreneurial culture inside the school. (University of Johannesburg, n.d.)
Stellenbosch University	1999	>15	The Innovus section of Stellenbosch University assists in establishing new businesses and oversees intellectual property. Their efforts have resulted in profitable businesses, especially in the biotechnology and agricultural industries, strengthening the university's position in the commercialization of research.
University of Cape Town (UCT)	2000	10 -15	Numerous spin-offs are facilitated by UCT's well-established technology transfer office, especially in the fields of engineering and health sciences. These spin-offs have made significant contributions to local and international markets.
Durban University of Technology (DUT)	2008	3 - 5	DUT's Technology Transfer and Innovation Unit supports potential projects inside the university, especially those in engineering and applied sciences. Their attention has been on evaluating and assisting with developments to guarantee successful commercialization.

## Conclusion

Skills, attitudes, and behaviours commonly associated with and critical for successful entrepreneurs are collectively known as an entrepreneurial mindset. This set of skills emphasizes creativity, risk-taking, innovation, identifying opportunities where others see obstacles, adapting to change and continuous innovation. Individuals with this mindset are not discouraged by failure or setbacks but rather see them as a chance to learn and grow. This review was conducted to investigate the effect of an entrepreneurial mindset on job creation by university students to reduce their dependence on existing white-collar jobs after their studies so that they can create their own jobs and employ other candidates. This is made possible by a change in orientation regarding existing jobs, conducting business-minded research, interdisciplinary university research, and support and contribution by the government and tertiary institutions. Based on the findings of the study, it was discovered that most of these interventions are already in place. Still, tertiary institutions and the government need to intensify the effort to further promote an entrepreneurial mindset among university students that can lead to job creation and reduce global unemployment among graduates.



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