ISSN: 2633-4828 Vol. 5 No.4, December, 2023

International Journal of Applied Engineering & Technology

ROLE OF RELATED WORK EXPERIENCE AND TECHNICAL EXPERTISE IN INTENTIONS FOR HIGH-TECH ENTREPRENEURSHIP IN INDIAN AEROSPACE INDUSTRY

[1]Krishna Murari and [2]Dr. Suman Pathak

[1]Research Scholar, CMS B-School, Faculty of Management Studies, JAIN (Deemed-To-Be University), Bangalore, India

[2]Professor & Director, Mats Institute of Management and Entrepreneurship, Jain Group of Institution, Bangalore, India

[1]krishnamurari1962@gmail.com and [2]p.suman@mime.ac.in

ABSTRACT

The study focuses on the recent boom in high-tech entrepreneurship within the Indian aerospace industry, stressing its potential for expansion. However, there is no specific research on the role of related work experience and technical expertise in intentions for high-tech entrepreneurship in the Indian aerospace industry, even though it is necessary for this technology-dependent industry. This quantitative research paper deals with this issue. The study collected data from high-tech entrepreneurs in the Indian aerospace industry. It has used the Structure equation model to test the hypotheses. The study has found that related work experience has a significant influence on intentions towards high-tech entrepreneurship in the Indian aerospace sector, which goes along with Davidsson (1995), Malebana and Mahlaole (2023) and Sahinidis et al. (2021). Technical expertise positively influences entrepreneurial intentions and supports product innovation. The study suggests that technical experts with related work experience can explore high-tech entrepreneurship. It also highlights the moderating role of age on related work experience for entrepreneurial intentions. This study emphasizes the importance of imparting technical skills in academia so that students can become successful entrepreneurs with practical experience in the related field. Future studies could include other industries and countries to allow for comparison and examine gender differences that may be moderating factors.

Keywords: High-tech entrepreneurship, aerospace industry, entrepreneurial intentions, related work experience, technical expertise, technology.

1. INTRODUCTION

One of the most significant sectors in the world, the aerospace industry affects practically every aspect of life, including businesses, society, science, and technology (Gabbai, 2005); compared to other businesses, the aerospace sector more effectively illustrates a nation's strength in the global context and its advancement in advanced, cutting-edge technologies. Compared to many other high-tech businesses, its growth is more rapid. This industry and the IT sector created the global economy and made the world a smaller place. Although it uses the most cutting-edge technologies on the planet, this business is also the most intricate in supply chain management and manufacturing (Murari & Pathak, 2021).

This industry is highly dependent on technology and presents several challenges, including high customer bargaining power, lengthy break-even periods, technological complexity, strict quality control standards set by Original Equipment Manufacturers (OEMs), low volume, zero tolerance for quality, high penalties for supplied component failure, cash crunch, and so forth (Murari & Pathak, 2021). It is now harder for entrepreneurs to perform well and survive due to technological advancements like advanced manufacturing, autonomous vehicles, augmented and virtual reality, analytics, artificial intelligence, machine learning, advanced materials, robotics, composite technology, and the Internet of Things (PwC, 2022). One of the key drivers of the aircraft industry's expansion is high-tech entrepreneurship.

Owing to its potential for innovation and expansion, high-tech entrepreneurship in the aerospace sector has grown in popularity recently. High-tech entrepreneurs' entrepreneurial aspirations are determined mainly by their relevant work experience and technical expertise, even though they also need a strong enthusiasm for technology

and an innovative idea (Fayena, Nelson, Rashman, & Renseburg, 2020). Prior work experience and technical proficiency complexly impact aspirations for high-tech entrepreneurship in high-tech fields such as IT and aerospace.

Research has shown that a sector's aspirations can predict a business's entrepreneurial behaviour. If high-tech entrepreneurs have specific goals in mind while starting a business, they are more likely to succeed in that industry (Kautonen, Van Gelderen, & Fink, 2015). The 2015 study by Kautonen, Van Gelderen, and Fink is pertinent because the aircraft industry is a high-tech industry.

This study is pertinent given the double-digit expansion of the Indian aviation sector and the strategies that the Indian government employs to promote it. It is also appropriate, given the emphasis on indigenous technologies and innovation in the Government of India's Atamanirbhar Bharat mission and the ₹3 trillion credit line announced on May 12, 2020, to support high-tech entrepreneurs in building their capacity through innovations in industry, technology, and human resources.

2. NEED FOR THE STUDY

The modern world is primarily shaped by the aerospace sector, which has revolutionized national security, communication, transportation, and scientific research. Transforming global transportation has been made possible in large part by the aerospace sector. A larger population can now afford air travel because of the advent of commercial aeroplanes, which has boosted global connectivity and economic growth. The aviation sector supports around 65.5 million jobs globally. It adds more than $2.7 trillion to the global economy each year, according to the International Air Transport Association (IATA) (International Air Transport Association, 2021).

Sustainable development is also aided by the industry's ongoing efforts to reduce emissions and increase fuel economy. The world has changed, and human civilization has been revolutionized by the aerospace sector, including aviation and space research. One of the key drivers of this expansion is high-tech entrepreneurship. Aerospace technology has advanced largely owing to high-tech entrepreneurship, making transportation safer, quicker, and more effective (Moraes et al. 2020).

Experience in related fields is an excellent advantage for high-tech business owners. It gives them access to resources, networks, market intelligence, risk management techniques, innovation potential, and critical skills. It is important to remember that entrepreneurship is for more than just people with prior industry experience; numerous successful high-tech start-ups have come from various backgrounds. However, in the fast-paced and fiercely competitive world of high-tech entrepreneurship, the benefits of relevant work experience can dramatically increase the likelihood of success (Peng, Zhou, & Liu, 2020), which inspires high-tech entrepreneurship.

The success of ventures in the high-tech sector largely depends on the interaction between technical expertise and intentions for high-tech entrepreneurship. Starting and growing companies focused on cutting-edge technologies, creativity, and intellectual property is known as "high-tech entrepreneurship" (Daneshjoovash, Jafari, & Khamseh, 2021).

As discussed above, high-tech entrepreneurship is necessary for the aerospace industry, a highly technology-dependent sector, and the government of India is promoting high-tech entrepreneurship through many schemes. Besides the fear of failure in this industry, many tech-savvy individuals are exploring this industry. It creates an interest in whether entrepreneurial intentions are due to related work experience and technical expertise. No particular study has been found on the role of related work experience and technical expertise in intentions for high-tech entrepreneurship in the Indian aerospace industry on search in Google Scholar, Web of Science and Research Gate, Science Insight, Scopus, and Emerald. This highlights the necessity of doing exploratory research to determine how relevant work experience and technical know-how affect aspirations for high-tech entrepreneurship in the Indian aerospace sector. The goal of this quantitative study on high-tech entrepreneurs in

the Indian aerospace sector is to determine how relevant work experience and technical know-how link to high-tech entrepreneurship goals.

1. OBJECTIVES OF THE STUDY

The objectives of this study are

- To study the development and growth of aerospace industry in India and the role of high tech entrepreneurship in aerospace Industry.
- To study the role of Related work experience and technical expertise in entrepreneurial intentions for high-tech entrepreneurship.
- To measure relationship between work-related experience and technical expertise on intentions for high-tech entrepreneurship in the Indian aerospace industry.

4. LITERATURE REVIEW

In the aerospace industry, high-tech entrepreneurship is the conception, growth, and development of creative aerospace companies that use cutting-edge research and advanced technologies to build new or improve existing aerospace technologies. The aerospace sector is a high-risk, high-reward one that needs substantial people and financial resources to be successful. A few personal qualities, such as relevant work experience and technical know-how, are essential for high-tech entrepreneurship in the aerospace sector, particularly in India.

4.1 Aerospace Industry

The accomplishments of aviation pioneers like the Wright Brothers in the early 20th century are credited with launching the aerospace industry. Their successful flight in 1903 launched powered flight and generated curiosity about the potential of aviation. Aircraft technology advanced quickly during World War I, highlighting the aircraft's military potential (Bugos, 2001)

Aerospace technology is essential to defence and national security. Military aircraft, satellites, and unmanned aerial vehicles (UAVs) make strategic operations, reconnaissance, and surveillance possible. Defence forces can better coordinate and maintain situational awareness using satellite-based communication and navigation systems (U.S. Department of Defence, n.d.). An essential factor in a nation's capacity to protect its borders, fend off threats, and uphold international security is the aerospace sector. The frontiers of human knowledge have been substantially widened, and human comprehension of the universe has dramatically increased through space travel and research.

Space organizations like the European Space Agency (ESA) and the National Aeronautics and Space Administration (NASA) have launched missions to the Moon, Mars, and other planets. These expeditions shed light on the possible existence of extra-terrestrial life, climatic patterns, and celestial bodies. Applications for the knowledge gathered from aeronautical research include weather forecasting, disaster relief, and the creation of new technology (NASA, n.d.). Global connectedness made possible by commercial aircraft has promoted tourism, economic expansion, and cross-cultural interaction. More people can now travel by air due to innovations in avionics, composite materials, jet engines, aircraft performance, comfort, and fuel efficiency (Mcmillan, 2019).

4.2 Indian Aerospace Industry

Over the years, the Indian aerospace industry has experienced substantial growth. It supports the country's space exploration, defence, and technological advancement. The history of the Indian aerospace industry's growth can be linked to the 1940s, which saw the founding of Hindustan Aeronautics Limited (HAL). India's aerospace capabilities, encompassing aircraft design, manufacturing, and maintenance, have been significantly shaped by HAL. It has been instrumental in developing indigenous aircraft, including the Tejas, Dhruv, Rudra, and HF-24 Marut, strengthening India's defence aviation industry's independence (Hindustan Aeronautics Limited, n.d.).

The Indian Space Research Organization (ISRO) has led India's space program, which is responsible for developing satellites, launch vehicles, and space exploration missions. The successful launches of the

Chandrayaan-1 and Chandrayaan-2 moon missions, as well as the Mars Orbiter Mission (MOM), which made India the first nation to reach Mars on its first attempt, are among ISRO's accomplishments (Indian Space Research Organization, n.d.).

Additionally, the aerospace sector in India is expanding significantly due to the involvement of numerous research and development organizations. As part of the Council of Scientific and Industrial Research (CSIR), National Aerospace Laboratories (NAL) has been instrumental in its growth. It has worked on creating, designing, and researching numerous aerospace technologies, such as composite materials, aero engines, and aircraft. Indian aerospace capabilities have been greatly enhanced by NAL's contributions to domestic aircraft development, including the Saras and the Hansa (CSR-National Aeronautics Laboratories, n.d.).

India's leading defence technology research and development body is the Defence Research and Development Organization (DRDO). Numerous DRDO labs have had a significant impact on the aerospace sector (Defence Research and Development Organization, n.d.).

India's aerospace industry has expanded and developed significantly, and private enterprises have been essential in fostering innovation, technological breakthroughs, and economic prosperity. Aequs Aerospace, Dynamatic Technologies Limited (DTL), Larsen & Toubro Limited (L&T) Aerospace, and Tata Advanced Systems Limited (TASL) are some of the notable private companies that have contributed significantly to the growth of the Indian aerospace industry.

4.3 High Tech Entrepreneurship in Aerospace industry

According to Landström, Harirchi, & Åström (2012), entrepreneurship is a multifaceted, diverse, and intricate phenomenon that encompasses economic, social, self-reflective, internal orientation, receptivity to methodological approaches, contextualization, and diversification aspects.

High-tech entrepreneurship is described as a "means of exploiting new knowledge and technologies to gain economic and social benefits" by Van Roy & Nepelski (2017). According to Ohyama (2015), "entrepreneurs with higher job-specific human capital prefer to use advanced technologies while entrepreneurs with low human capital try to manage with conventional and proven technologies". The aerospace sector is in dire need of advanced technologies to achieve a competitive advantage and increased supremacy. These technologies include sophisticated avionics, 3D printing, robotics, composites, and precision manufacturing.

High-tech entrepreneurs in the aerospace industry have particular traits that help them succeed. First of all, they exhibit technological prowess and a thorough comprehension of the nuances of the sector. They can find gaps in the market, provide creative solutions, and make well-informed strategic judgments because to this quality. Moreover, they exhibit remarkable flexibility and can promptly react to market demands, legislative modifications, and technology breakthroughs. Thirdly, high-tech businesspeople in the aerospace sector have a great focus on the demands, preferences, and feedback of their clients when developing new products and providing services (Riddle & Brinkerhoff, 2011).

The aerospace industry has witnessed a rise in high-tech aerospace startups. They change air travel and space exploration by introducing new technologies and cheaper solutions, hence making space and information accessible to all. For example, SpaceX has changed to reusable rockets, which has led to a significant reduction in the costs of launches and has attracted different customers. While Rocket Lab is pioneering compact satellite technology for earth observation, interplanetary missions, and others, Planet Labs is using data from space for the benefit of society at large. The industry has progressed through collaboration, such as Blue Origin's partnership with United Launch Alliance (ULA). These startups are set to transform aerospace, leading into an innovation era on human exploration frontiers (Faster Capital, n.d.)

4.4 Entrepreneurial Intentions for High Tech Entrepreneurship in the Aerospace industry

Empirical studies on high-tech entrepreneurship offer valuable insights into the connection between intentions and deeds (Al-Mamary & Alraja, 2022; Lebret, 2010). According to Liñán and Chen's (2009) empirical research,

individuals who possess a strong inclination towards becoming high-tech entrepreneurs are more likely to engage in high-tech sector entrepreneurial activities. Higher levels of education and a significant amount of experience are associated with pursuing entrepreneurial goals (Lee, Womh, Foo, & Leung, 2011).

4.4 Related Work Experience and Technical Expertise and Their Roles in Entrepreneurial Intentions for High-Tech Entrepreneurship

4.4.1 Related work Experience (RWE)

Related work experience is a professional or employment history related to a particular job or industry. It typically includes previous positions, responsibilities, and relevant duties that improve an applicant's suitability for a given position (Liu et al., 2021). Such related work experience may refer to an individual's total background as regards previous employment, internships, or past projects directly in line with the roles and responsibilities of a desired or existing job position (Liu et al., 2021).

For relevant work experience to be helpful to an employer when hiring for a specific job, it has to closely relate to his/her skills, qualifications and knowledge (DeFillippi & Arthur, 1996). It shows how capable one is of performing tasks associated with the post and their potential contribution towards making it meaningful (Spencer & Spencer, 1993). On the contrary, Politis and Gabrielsson (2005) stated that it encompasses situations where individuals learn about skills, like knowing about something specific. Such exposure entails contact with industry-specific considerations within which work belongs – industrial sector/domain/governance context- (Hannan & Freeman, 1977).

Related work experience will often include accomplishments and successes from past jobs that demonstrate aptitude for similar work by a candidate (Locke & Latham, 2002). Therefore, this indicates constant professional growth on the part of a person and a commitment towards acquiring additional knowledge about whatever field they specialize in (Super, 1957). Similarly, Lent et al. (1994) claim that it should be consistent with someone's desires and career objectives to help one progress along their desired career path. Such quality makes its possessor more likely than other applicants competing for vacancies in this field or instead functions owing to increased chances of being employed in such a field (Van der Heijde & Van der Heijde, 2006). When knowledge and abilities obtained through education or training are applied in practical work situations, it is referred to as related work experience (Kolb, 1984).

4.4.1.1 Role of Related Work Experience in Entrepreneurial Intentions for High-Tech Entrepreneurship. Prior work experience highly contributes to high-tech entrepreneurship intentions due to its problem-solving nature, industry network formation, market understanding, risk management, innovativeness, more resource availability, speeding up the learning curve, credibility before stakeholders, and compliance with regulations, as demonstrated below.

a. **Improved Problem-Solving Capabilities:** Aspiring high-tech entrepreneurs benefit from relevant work experience that sharpens their problem-solving abilities through exposure to the complexities and problems of the business (Eisenhardt, 2007). These skills are useful during uncertain circumstances and challenges associated with working in the high-tech industry.

b. **Development of Industry Networks:** Entrepreneurs who have worked in the high-tech industry before often have an established network of contacts, which may include possible co-founders, investors, and mentors (Uzzi, 1997). These relationships can significantly improve the maturity and ultimate success of the start-up, leading to strong entrepreneurial intentions.

c. **Understanding the market:** Finding opportunities and filling gaps in the market are critical components of entrepreneurship. Gaining work experience in the high-tech business can help entrepreneurs gain insights into market trends, client preferences, and pain concerns (Shane, 2000). This information helps with product development strategies for entering markets.

d. **Risk taking capability:** High-tech entrepreneurship is a business field that can take advantage of risk management skills derived from previous job experience in the same domain (Knight, 1921). In negotiating start-ups' unmapped territory, people who do not bother risks make better decisions.

e. **Enhanced Innovativeness:** Innovation is an essential component underlying high-tech entrepreneurship. Persons with relevant work experience know more about emerging market trends and new technology, which enhance problem-solving through creativity and increase entrepreneurial aspirations (Ard-Pieter de Man & Duysters, 2005).

f. **Resource augmentation:** The individuals often have these resources, for example, laboratory facilities or specialized equipment, due to their previous linkages with tech firms or academic institutions (Baum & Silverman, 2004). Such resources lead to intentions to start a business.

g. **Quick decision-making and flexibility:** These are frequently required in high-tech entrepreneurship. A shorter learning curve is usually associated with those having the right experience in terms used in industry, rules, and market dynamics (Helfat & Peteraf, 2015). This quality can boost entrepreneurial intentions, resulting in more effective operations and quicker reactions to market changes.

h. **Enhanced Trust:** Investors, partners, and buyers frequently trust businesspeople who succeeded previously or had relevant exposure (Carland, Hoy, Hoy, Boulton, & Carland, 1984). For this reason, it becomes easier for such entrepreneurs to find financial support for their innovative ideas or establish critical business relationships.

i. **Handling regulatory requirement:** Experience makes entrepreneurs well-suited for comprehending the complexities of regulatory compliance and mitigating legal issues (Hitt et al., 2018).

The hypothesis is then formulated thus:

H1a: Related work experience has a significant influence on intentions for high-tech entrepreneurship in the Indian Aerospace Industry.

4.4.2 Technical Expertise

Technical expertise offers entrepreneurs multiple ways of dealing with resource allocation problems, risk management dilemmas, and product development challenges. Successful navigation through the opportunities and obstacles of technological change requires entrepreneurs equipped with broad market awareness and technical competencies. The present review aims to shed light on what entrepreneurship in high-tech fields entails, focusing on the aerospace sector.

Technical expertise refers to a deep and specialized knowledge or skill set in a particular industry or subject area usually acquired through education, training and real-world experience (Eisenhardt & Martin, 2000). Such knowledge enables individuals to efficiently understand, apply, and grow within their chosen field.

Competence and proficiency in any technical field are referred to as technical expertise, which encompasses both theoretical knowledge and practical abilities (Dosumu, Simoes, & Crespo, 2024). Technical expertise means deeply understanding the principles guiding operations within particular technological areas. According to Anderson and Krathwohl (2001), this involves showing how theoretical ideas can be used in actual situations, thus displaying skills in practical application. It includes analyzing technological problems of high complexity and coming up with practical solutions that work (Jonassen, 2011).

According to Eraut (2000), technical experts adapt their skills and knowledge through lifelong learning, which enables them to be in step with changing trends in industry and technology. It permits individuals to create new ideas within their fields of interest by challenging existing knowledge bases and practices (Amabile 1996). Technical professionals' ability to perform tasks more efficiently and make informed decisions leads to increased productivity and efficiency. For instance, technical specialists can convert complex technical information into

comprehendible forms for non-specialists because they have good communication abilities (Guffey & Loewy, 2018). Having technical skills is necessary for maintaining high-quality standards and ensuring that work meets predetermined criteria (Juran & Gryna, 1993).

Indeed, this also includes a range of specialized knowledge, practical abilities, problem-solving skills, a commitment to lifelong learning, and ethical conduct within a given technological domain. It has become essential in many careers across technology-based fields.

4.4.2.1 Role of Technical expertise in Entrepreneurial Intentions for High tech entrepreneurship. The support of entrepreneurial intentions by high-tech entrepreneurs requires technical expertise since it lays a foundation for conceptualization, inventiveness and the successful operation of technology-based business ventures. The following are essential aspects regarding the relationship between technical expertise and intentions for high-tech entrepreneurship. Amongst the most influential industries in the world, the aerospace sector bears on almost everything in life, including businesses, society, science, and technology (Gabbai, 2005).

a. **Product Innovation and Development:** Technical skills allow the creation of new products that serve customer needs. Entrepreneurs with technical know-how can create leading-edge products (Chesbrough, 2003), which can also increase business start-up intentions.

b. **Market Validation:** Technological knowledge allows entrepreneurs to quickly develop MVPs (Minimum Viable Products), which can be used to test and validate product concepts among potential customers (Ries, 2011).

c. **Competitive Advantage:** Technical expertise could result in exclusive technology or processes that can be difficult for competitors to copy (Barney, 1991), thus stimulating higher levels of entrepreneurship.

d. **Technical Decision Making:** Technically skilled entrepreneurs make informed decisions about architecture choices, scalability selection options, or even technologies—the essentials applicable in high-tech endeavours (McGrath, 2013).

e. **Product Iteration and Improvement:** Business owners who understand how things work can change their goods or services based on customer feedback or market trends (Blank, 2013).

f. **Risk Mitigation:** Technical skills help an entrepreneur identify technological risks early during development, reducing the possibility of costly setbacks occurring later (Cooper & Edgett, 2009).

g. **Team Building:** Those with a technical background are better equipped to attract and manage such talent when creating an experienced group to accomplish the enterprise's objectives (Reuer, Matusik, & Jones, 2019).

h. **Pitching to Investors:** These technical skills are helpful when they reveal that they are attainable by describing the technical aspects of their goods or services to investors (Osterwalder & Pigneur, 2013).

i. **IP Protection and Licensing:** Technical expertise is required to negotiate intellectual property matters such as patents, trademarks, and licensing agreements, thereby securing and capitalizing on innovations (Shapiro & Varian, 1999).

j. **Technological Adaptation:** High-tech industries experience rapid technological changes. Technical expertise allows entrepreneurs to see new opportunities and respond quickly to them (Christensen et al., 2015).

k. **Quality Assurance and Reliability:** High-tech products are expected to be reliable, so this would require some level of technical knowhow. Competent businesspeople who understand technology well can establish rigorous quality control systems (Kan, 2002).

l. **Cost Management:** Technical knowhow helps high-tech businesses optimize costs. Entrepreneurs eliminate waste during the production process by simplifying everything to come up with affordable solutions (Horngren et al., 2018).

m. **Regulatory Compliance:** Many high-tech start-ups operate within regulated sectors. Entrepreneurs with technical skills more easily perceive what sector-specific rules dictate (Cresswell & Sheikh, 2013).

n. **Scalability:** Scalability is important when designing systems and architectures for start-up companies to meet rising demand (Brynjolfsson & McAfee, 2014). This requires some technical knowledge.

o. **Capability to analysed the data:** High-tech entrepreneurs can employ technological knowledge to gather and analyse data, which helps them come up with decisions backed by data that improve their operations and strategies (Provost & Fawcett, 2013).

p. **Farsightedness:** This technical know-how helps business people develop a plan to enable their enterprises to survive technological changes occurring in the industry's forward movement (Day & Schoemaker, 2006).

Hence, technical knowledge is helpful for high-tech entrepreneurs; it ranges from long-term planning and sustainability to innovation and product development. Technical competence is an essential feature of high-tech entrepreneurial ambitions. It enables founders to craft, enhance and expand on their inventions as they navigate challenges experienced in the technology-driven business environment.

Therefore, a hypothesis based on this statement is postulated.

H2a: Technical expertise has significant influence on intention for high-tech entrepreneurship in the Indian Aerospace Industry.

4.4.3 Age and High Tech entrepreneurship

Azoulay et al. (2020) conducted a study in United States and found that middle age entrepreneurs were more successful than young due to the fact that they got more related experience and technical knowledge resulting in higher success in high tech entrepreneurship. Hence, age can play a moderating role on the related work experience and technical expertise.

Zhao, O'Connor, Wu and Lumpkin (2021) in their meta-analysis found that age has positive linear relationship with the success of entrepreneurs.

In view of the above, following hypotheses are proposed.

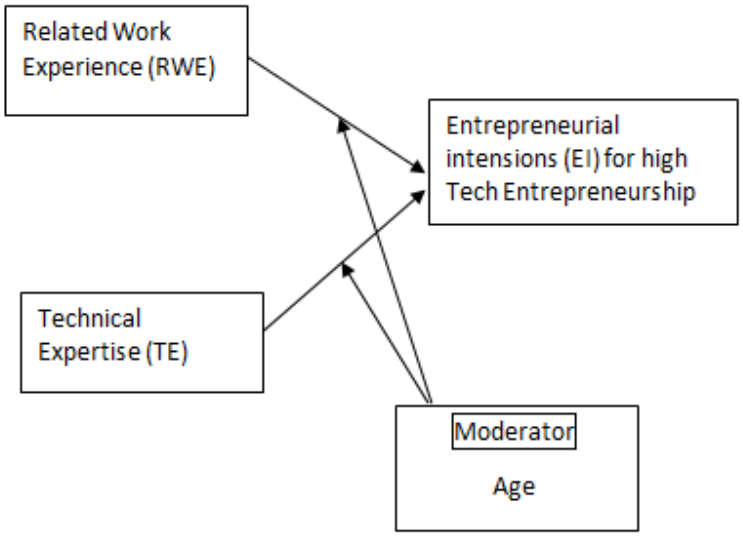
H3a: Age has a significant moderation effect on the relationship between RWE-EI for the intentions for high tech entrepreneurship in SMEs in Indian Aerospace Industry

H4a: Age has a significant moderation effect on the relationship between TE-EI for the intentions for high tech entrepreneurship in SMEs in Indian Aerospace Industry

4.5 Conceptual Framework

Based on the above discussion and the hypotheses proposed the following conceptual framework is developed and shown in Figure 1.

Figure 1. Conceptual Framework



5. RESEARCH METHODOLOGY

A quantitative study methodology was adopted, using the Structure Equation Model (SEM) with a statistical procedure. It facilitated the evaluation of the relationship between the observed variables. The study was conducted by sending a questionnaire to all 450 high-tech entrepreneurs identified from the Society of Indian Aerospace Technologies and Industries (SIATI) directory, as this organisation has accumulated the details of entrepreneurs working in the aerospace industry in India (Society of Indian Aerospace Technologies and Industries, n.d.). Follow-ups were carried out by phone, email, and personal visits. 296 responses were collected. Follow-ups were carried out by phone, email, and personal visits. 296 responses were collected. The reliability test, factor analysis and validity of the response were carried out using SPSS 26. A structural equation model (SEM) was created using SPSS AMOS. Model fit was tested, and hypothesis testing was conducted.

5.1 Development of Scale

Pretested questionnaires were studied to measure the observed variables, viz. related work experience (RWE), technical expertise (TE) and entrepreneurial intentions (EI). The scales developed by Liñán and Chen (2009) for entrepreneurial intentions, by Germain and Tejeda (2012) for technical expertise, and Mäkiniemi, Ahola, and Joensuu (2020) for related work experience (RWE), and a questionnaire were made to utilise in the study. The developed scale comprises nine questions with a Likert scale covering the observed variables and factors outlined in the conceptual framework. Demographic parameters like qualification, gender, age, work experience, industry and location were also covered in the measurement scale.

5.2 Sample Size

The directory of the Society of Indian Aerospace Technologies and Industries (SIATI), which has details of entrepreneurs from the Indian aerospace industry, was utilised to identify the high-tech entrepreneurs working in high-tech areas like avionics, CNC machining of critical structural components, assembly of substructure and primary structure of aircraft and helicopters, and developing testers were identified. A total of 450 high-tech entrepreneurs were identified. The sample size required for a population of 450, as determined by the table published by Glenn (1992) with a +/-5% margin of error, 95% confidence level, and p=.5, is 212, considering that the data is nearly normally distributed (Glenn, 1992; Singh & Masuku, 2014). The questionnaire was sent to all 450 high-tech entrepreneurs identified from the SIATI directory to obtain more than 212 responses. A total of 296 responses were received and used for data analysis.

6. DATA ANALYSIS

6.1 Respondents

The study examined high-tech entrepreneurs in the aviation industry in major Indian cities, including Bengaluru, Hyderabad and Mumbai. The respondents were from different age brackets, with the majority being between 50 and 59 years, followed by a few aged between 40 and 49. Male participants accounted for approximately 95.4 % of the sample population, while female respondents comprised only 4.6%. Regarding education, most respondents had undergraduate qualifications in engineering or science (56.8%), while others had postgraduate and PhD (43.2%). These jobs included design and development, engineering services, maintenance, repair and production. Most of the responses had an experience exceeding twenty years.

6.2 Reliability and Validity of the Scale

According to Hair et al. (2006), Cronbach's alpha was determined for reliability and is shown in Table 1. The overall reliability was found to be 0.812, greater than 0.70 and acceptable. After examining both dependent and observed variables, variance inflation factors (VIF) were found to be less than 2.5; as a result, collinearity was not considered significant (Johnston, Jones, & Manley, 2018).

6.3 Factor Analysis

Items about related work experience, technical expertise, and entrepreneurial intentions were subjected to factor analysis. Principal Component Analysis was the extraction technique employed, and Varimax with Kaiser Normalization was the rotation technique. The correlation matrix's factorability was supported by the results of Bartlett's Test of Sphericity significance, which showed that the value of <.005 indicated that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.67, above the advised value of 0.6 (Kaiser, 1970, 1974). Table 1 presents the findings.

Table 1. Cronbach Alpha and Factor loading

Factor	Cronbach Alpha	Items	Factor Loading
EI	0.832	q1	0.792
		q2	0.831
		q3	0.780
RWE	0.839	q4	0.828
		q5	0.869
		q6	0.879
TE	0.754	q7	0.734
		q8	0.809
		q9	0.721

6.4 Content Validity of the Scale

According to Cooper and Schindler (2001), content validity refers to the extent to which all of the domains of the constructs under examination must be well covered. Three academicians from the management field and three practitioners from the aerospace industry reviewed the items in this study to confirm the constructs' content validity.

6.5 Construct Validity of the Scale

Confirmatory factor analysis was employed in this study to measure the construct validity of the scales. Convergent validity was established since the average factor loading was above 0.5, as shown in Table 1, and the average variance extract (AVE) is > 0.5 (Henseler, Ringle, & Sinkovics, 2009), as demonstrated in Table 2.

Discriminant validity was confirmed by ensuring that the square root of the average variance extracted and composite reliability (CR) exceeded the correlation coefficients. Moreover, composite reliability was more than 0.7, as Fornell and Larcker (1981) recommended. The results are presented in Table 2.

Table 2. Discriminant validity

	CR	AVE	EI	RWE	TE
EI	0.843	0.642	**0.801**		
RWE	0.830	0.620	0.226	**0.788**	
TE	0.747	0.501	0.657	0.152	**0.706**

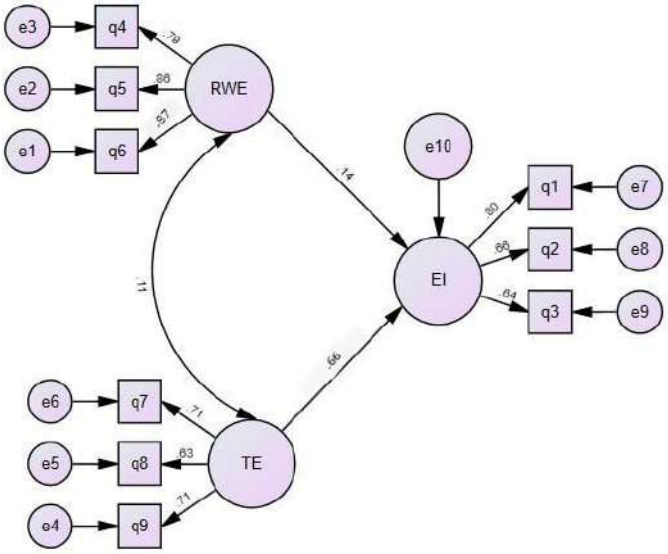
6.6 Common Method Bias

The Harman Single Factor Test was used SPSS 26 to investigate common method bias (CMB). The variation percentage is found to be 32.152, which is much less than 50 (Podsakoff & Organ, 1986). Therefore, common method variation (CMV) and common method bias (CMB) are not problems.

6.7 Structure Equation Model (SEM)

A structural equation model was created using SPSS AMOS and then executed using the SPSS file created from the primary data that the respondents had given. The standardized coefficients are displayed in Figure 2.

Figure 2. Structure Equation Model with Standardized Coefficients



6.7.1 Model fit

Overall model fit indices were examined. CMIN/df was 2.226, Normed fit index NFI was .909, Comparative fit index (CFI)was .947 and root mean Square of approximation (RMSEA) was .079. These values exceed the threshold values CMIN/df<=3; NFI>.9 (Lohmoller, 1989), CFI>=.95 (Hu & Buntler, 1999), RMSEA<.08 (Mulaik et al., 1989), which indicates model fit.

6.7.2 Testing of hypothesis

Results from standardized regression weights are summarized in Table 3. As per Table 3, hypothesis H1a or RWE-EI (β=.116, p<,001) supports Hypothesis H1a, which means RWE has a significant influence on entrepreneurial intentions for High-tech entrepreneurship in the Indian Aerospace industry.

Also, from table 3, H2a or PV-EI (β=.661, p< .01). Hence, Hypothesis H2a is supported which means TE has significant influence on entrepreneurial intentions for high tech entrepreneurship in the Indian Aerospace industry.

6.7.3 Analysis of Moderation Effect

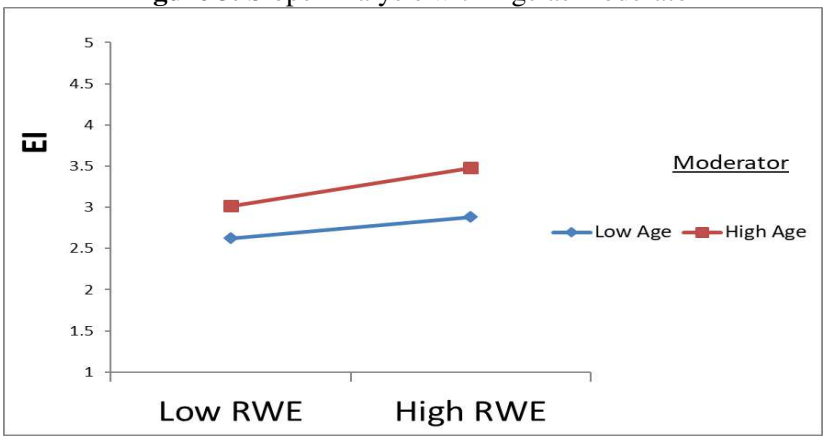
The evaluation of the moderation effect is predicated on the idea that the hypothesis is validated in the event of significant moderating. SEM was used to examine the moderating effect. Table 3 summarizes the regression

weights. Based on Table 3, Hypothesis H3a, RWE x Age (β=.051, p<.05), is validated, indicating that the moderator's age has a noteworthy impact on RWE. Table 3 indicates that moderator age's influence on TE is insignificant (β=.011, p>.05), indicating the rejection of H4a. The slope analysis shown in Figure 4 indicates that higher age positively moderates the impact of related work experience(RWE) on entrepreneurial intentions for high-tech entrepreneurship (EI) in the Indian aerospace industry.

Table 3. Hypothesis testing

Hypothesis	Path	Beta Coefficient	p value	Significance
H1a	RWE-EI	.116	***	Supported
H2a	TE-EI	.661	***	Supported
H3a	RWExAge	.051	.036	Supported
H4a	TE xAge	.011	.823	Rejected

Figure 3. Slope Analysis with Age as moderator



7.0 RESULTS AND DISCUSSION

Since 1940, the Indian aerospace industry has seen many phases of development, from maintenance during the Second World War to the development of the fourth generation of aircraft, advanced light helicopters, and successful space missions. Hindustan Aeronautics Limited (HAL) has been responsible for the growth of India's aerospace industry since the 1940s. The influence of HAL extends to aircraft design, manufacturing, and maintenance activities that have created self-reliance in India's defence aviation sector. Indian Space Research Organization (ISRO), on the other hand, made significant achievements, including successful lunar landings and Mars missions. Another institute contributing towards technological advancements in this field is National Aerospace Laboratories (NAL), which works under the Council of Scientific and Industrial Research (CSIR). Defence Research & Development Organization labs has also played an important role. Additionally, private companies like Dynamatic Technologies Limited (DTL), Larsen & Toubro Limited (L&T) Aerospace, Aequs Aerospace, and Tata Advanced Systems Limited (TASL) have boosted innovation levels as well as economic development within this domain.

This industry is high tech industry and it works on new cutting edge technologies. Hence it attracts the prosperous entrepreneurs for high tech entrepreneurship. High-tech entrepreneurship is utmost important for the Indian aerospace industry to compete with world big manufactures of aerospace products (Murari & Pathak, 2021). Aerospace industry has witnessed a rise of high-tech aerospace start-ups. They change air travel and space exploration through introducing new technologies and cheaper solutions (Faster Capital, n.d.).

The study shows that related work experience significantly influences the intentions for high-tech entrepreneurship in the Indian Aerospace industry. This finding aligns with other studies on entrepreneurship by Davidsson (1995), Malebana and Mahlaole (2023), and Sahinidis et al. (2021). The prior work experience has a strong influence on the entrepreneurial intention of high-tech innovation due to problem-solving skills, having industry networks, understanding markets, building risk management capabilities, cultivating innovativeness, enabling quick decision-making processes, providing resources, building trust among others and aiding regulatory compliance (Eisenhardt 2007; Uzzi 1997; Shane 2000; Knight 1921; Ard-Pieter de Man & Duysters 2005; Baum & Silverman 2004; Helfat & Peteraf 2015; Carland et al. 1984; Hitt et al. 2018). This experience prepares entrepreneurs for tackling problems amidst complexities while helping them to build valuable contacts in the market and make informed decisions about which products or services are most likely to succeed and how much capital investment is required for such projects.

The result of this study demonstrates that technical expertise has significant positive influence on intentions for high-tech entrepreneurship in the Indian aerospace industry. This aligns with previous studies on high-tech entrepreneurship (Bhatta et al. 2024; Oboreh & Nnebe, 2019). Technical expertise is critical for high-tech entrepreneurs because it forms the basis for thinking up ideas and successfully running technology-based enterprises. Technical skills drive product innovation in influential industries like aerospace, enabling entrepreneurs to create leading-edge products (Chesbrough, 2003). On top of that, technical knowledge allows the rapid development of Minimum Viable Products (MVPs), validating concepts and fostering entrepreneurship by acting quickly on new opportunities without waiting until everything is settled, according to Ries (2011). Additionally, technical expertise leads to exclusive technologies, informed decision-making mechanisms, companies' capability in risk mitigations, talent attraction from outside sources, IP protection, Regulatory compliance - scalability- cost optimization- data analysis- farsightedness, etc. Ultimately, technical competence lies at the heart of high-tech business aspirations by enabling founders' manoeuvring problems and steering innovations (Gabbai 2005).

This study found a significant interaction between related work experience and age. The with increase in the age, relative work experience enhances the entrepreneurial intentions for high-tech entrepreneurship in the Indian aerospace industry.

8.0 Implications and Directions for Future Research

The study has strongly revealed how prior work experience in related fields and technical expertise can positively help individuals to have intentions towards high-tech entrepreneurship in the aerospace industry in India. This result assists in filling this gap as it indicates technical expertise contributes to high-tech entrepreneurship, which wasn't dealt with earlier on. It also concurs with previous findings on the role of related work experience from Malebana, Mahlaole (2023), and Sahinidis et al. (2021).

This research suggests that professionals who have worked before can venture into high-tech businesses, for they have the necessary skills gained through relevant exposure and experience. Also, it argues that academic institutions and entrepreneurial education establishments should teach students similar technical abilities apart from more practical sessions exposing them to activities concerned with new start-ups planned out by students.

As most of the respondents were males, research can be conducted on female entrepreneurs to explore the moderating role of gender on related work experience. Similar research can also be conducted in high-tech industries like IT and pharmaceuticals. Expanding the research to aerospace industries in other countries would enable a comparative analysis of the role of related work experience and technical expertise in underdeveloped, developing, and developed nations.

9.0 LIMITATIONS

In considering the generalizability of this paper, it is important to highlight some limitations, the participants were mainly from BEng lure and majority were male wich may lead to sampling error (Hunter & Schmidt, 2004). The

study included only high-tech entrepreneurs from India. It will be exciting to conduct study by taking participants from many countries.

10. CONCLUSION

The study's main objective was to examine the role of related work experience and technical expertise on entrepreneurial intentions in the Indian Aerospace industry. It has highlighted the positive influence of related work experience and technical expertise on entrepreneurial intentions. It has also highlighted the moderating role of age on related work experience. The study has contributed to the literature by highlighting the role of technical expertise in entrepreneurial intentions for high-tech entrepreneurship, which was not explored earlier.

REFERENCE

Al-Mamary, Y. H. S., & Alraja, M. M. (2022). Understanding entrepreneurship intention and behavior in the light of TPB model from the digital entrepreneurship perspective. *International Journal of Information Management Data Insights, 2(*2), 100106. https://doi.org/10.1016/j.jjimei.2022.100106

Almeida, F. (2023). The role of professional experience in the entrepreneurial intention in higher education. *International Journal of Professional Development, Learners and Learning, 5*(1), ep2303. https://doi.org/10.30935/ijpdll/127

Amabile, T. M. (1996). *Creativity in context: update to the social psychology of creativity*. Westview Press.

Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching and assessing: a revision of bloom's taxonomy of educational objectives: complete edition*. New York: Longman.

Ard-Pieter de Man, & Duysters, G. (2005). Collaboration and Innovation: A Review of the Effects of Mergers, Acquisitions, and Alliances on Innovation. *Technovation, 25*(12), 1377-1387. DOI: 10.1016/j.technovation.2004.07.021

Azoulay, P., Jones, B. F., Kim, J. D., & Miranda, J. (2020). Age and high-growth entrepreneurship. American Economic Review: Insights, 2(1), 65-82. DOI: 10.1257/aeri.20180582

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management,* 17, 99-120.https://doi.org/10.1177/014920639101700108

Baum, J. A. C., & Silverman, B. S. (2004). Picking Winners or Building Them? Alliance, Intellectual, and Human Capital as Selection Criteria in Venture Financing and Performance of Biotechnology Startups. *Journal of Business Venturing, 19*(3), 411-436. DOI: 10.1016/S0883-9026(03)00038-7

Bhatta, D. D., Pi, Y., Sarfraz, M., Jaffri, Z. U. A., Ivascu, L., & Ozturk, I. (2024). What determines the entrepreneurial intentions of employees? A moderated mediation model of entrepreneurial motivation and innovate work behavior. *Heliyon,* 10(2). 10.1016/j.heliyon.2024.e24678

Blank, S. G. (2013*). The four steps to the epiphany: successful strategies for products that win*. K & S Ranch.

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.

Bugos, G. (2001). *History of the aerospace industry.* EH.Net Encyclopedia, edited by Robert Whaples. Retrieved from https://eh.net/encyclopedia/the-history-of-the-aerospace-industry/

Carland, J. W., Hoy, F., Hoy, F., Boulton, W. R., & Carland, J. A. C. (1984). Differentiating entrepreneurs from small business owners. *Academy of Management Review, 9*(2), 358-359. https://doi.org/10.2307/258448

Chesbrough, H. W. (2003). *Open innovation: the new imperative for creating and profiting from technology*. Harvard Business Press.

Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What Is Disruptive Innovation? *Harvard Business Review, 93*(12), 44-53.

Cooper, D. R., & Schindler, P. S. (2001). *Business Research Methods*. McGraw-Hill Higher Education, London.

Cooper, R. G., & Edgett, S. J. (2009). Idea-to-launch new product development practices that set the standard. *Research-Technology Management, 52*(3), 16-27. DOI: 10.5437/08956308X5502022

Cresswell, A. M., & Sheikh, A. (2013). Health information systems: the next generation. *Journal of the American Medical Informatics Association, 20*(1), 1-3. https://doi.org/10.1136/amiajnl-2013-001684

CSR-National Aeronautics Laboratories. (n.d.). retrieved from https://www.nal.res.in/

Daneshjoovash, S. K., Jafari, P., & Khamseh, A. (2021). Effective commercialization of high-technology entrepreneurial ideas: a meta-synthetic exploration of the literature. Journal of Small Business & Entrepreneurship, 33(6), 663-688. https://doi.org/10.1080/08276331.2020.1789825

Davidsson, P. (1995). Determinants of Entrepreneurial Intentions. Paper prepared for the RENT IX Workshop, Piacenza, Italy, November 23-24. Retrieved on March 22, 2024 from https://eprints.qut.edu.au/2076/1/RENT_IX.pdf

Day, G. S., & Schoemaker, P. J. H. (2006). Peripheral vision: detecting the weak signals that will make or break your company. Harvard Business Review Press.

Defence Research and Development Organization. (n.d.). https://www.drdo.gov.in/drdo/

DeFillippi, R. J., & Arthur, M. B. (1996). Boundaryless contexts and careers: A competency-based perspective. In M. B. Arthur, D. M. Rousseau, & A. DeFillippi (Eds.), The Boundaryless Career (pp. 116-131). Oxford University Press. DOI: 10.1093/oso/9780195100143.003.0007

Deming, W. E. (1982). *Out of the Crisis*. MIT Press.

Dosumu, O., Simoes, N., & Crespo, N. (2024). Re-thinking human capital acquisition for entrepreneurship: a holistic multidimensional approach. *International Journal of Education Economics and Development, 15*(1-2), 6-30. DOI: 10.1504/IJEED.2023.10049724

Eisenhardt, K. M. (2007). Building Theories from Case Study Research. *Academy of Management Review, 14*(4), 532-550. http://links.jstor.org/sici?sici=0363-7425%28198910%2914%3A4%3C532%3ABTFCSR%3E2.0.CO%3B2-R

Eraut, M. (2000). Non-formal learning, implicit learning and tacit knowledge in professional work. *British Journal of Educational Psychology, 70*(1), 113-136. https://doi.org/10.1348/000709900158001

FasterCapital. (n.d.). How Space Tech Startups Are Disrupting the Aerospace Industry. Retrieved on March 20, 2024, from https://fastercapital.com/content/How-Space-Tech-Startups-are-Disrupting-the-Aerospace-Industry.html

Fayena, I., Nelson, A., Rashman, L., & Rensburg, D. J. V. (2020). Learning strategies of high-tech entrepreneurs about business opportunities. *International Journal of Entrepreneurial Venturing, 12*(2), 228-250. https://doi.org/10.1504/IJEV.2020.105549

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research,* 18, 382-388. doi: 10.2307/3150980

Gabbai, J.M.E. (2005). *Complexity and the Aerospace Industry: Understanding Emergence by Relating Structure to Performance Using Multi-Agent Systems* ([Doctoral dissertation, University of Manchester]. ResearchGate. https://www.researchgate.net/publication/272087392_Complexity_and_the_Aerospace_Industry_Understanding_Emergence_by_Relating_Structure_to_Performance_Using_Multi-Agent_Systems

Germain, M.-L., & Tejeda, M. J. (2012). A preliminary exploration on the measurement of expertise: An initial development of a psychometric scale. *Human Resource Development Quarterly, 23*(2), 203-233. https://doi.org/10.1002/hrdq.21134

Glenn, I. D. (1992). *Determining sample size*. [Fact Sheet PEOD-6]. Florida Cooperative Extension Services, Institute of Food and Agricultural Sciences, University of Florida, Gainesville.

Guffey, M. E., & Loewy, D. (2018). Essentials of business communication (10th ed.). Cengage Learning.

Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. American Journal of Sociology, 82(5), 929-964. DOI: 10.1086/226424

Helfat, C. E., & Peteraf, M. A. (2015). Managerial Cognitive Capabilities and the Microfoundations of Dynamic Capabilities. *Strategic Management Journal, 36*(6), 831-850. https://doi.org/10.1002/smj.2247

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Journal of the Academy of Marketing Science, 20*(2), 227–319.

Hindustan Aeronautics Limited. (n.d.). Retrieved from https://www.hal-india.co.in/

Hitt, M. A., Ireland, R. D., & Hoskisson, R. E. (2018). Strategic Management: Concepts and Cases: Competitiveness and Globalization (12th ed.). Boston: Cengage Learning.

Horngren, C. T., Datar, S. M., & Rajan, M. V. (2018). *Cost accounting: a managerial emphasis* (16th ed.). Pearson.

Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Hunter, J. E. & Schmidt, F. L. (2004*). Methods of meta-analysis: Correcting error and bias in research findings*. Thousand Oaks, CA: Sage.

Indian Space Research Organisation. (n.d.) retrieved from https://www.isro.gov.in/genesis.html

International Air Transport Association (IATA). (2021). *Aviation Benefits Beyond Borders.* Retrieved from https://www.iata.org/contentassets/9735db0f5e3f43799ccfad2be22d0db2/aviation-benefits-beyond-borders-2021.pdf

Johnston, R., Jones, K., & Manley, D. (2018). Confounding and collinearity in regression analysis: a cautionary tale and an alternative procedure, illustrated by studies of British voting behaviour. *Quality & Quantity, 52*(5), 1957–1976. https://doi.org/10.1007/s11135-017-0584-6

Jonassen, D. H. (2011*). Learning to solve problems: a handbook for designing problem-solving learning environments*. Routledge. DOI: 10.4324/9780203847527

Juran, J. M., & Gryna, F. M. (1993). Juran's quality control handbook. McGraw-Hill Education.

Kaiser, H. (1970). A Second Generation Little Jiffy. *Psychometrika*, 35, 401-415. https://doi.org/10.1007/BF02291817

Kaiser, H. (1974). An Index of Factorial Simplicity. *Psychometrika*, 39, 31-36. https://doi.org/10.1007/BF02291575

Kan, S. H. (2002). *Metrics and models in software quality engineering* (2nd ed.). Addison-Wesley Professional.

Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behaviour in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice, 39*(3), 655-674. https://doi.org/10.1111/etap.12056.

Knight, F. H. (1921). *Risk, Uncertainty, and Profit*. Boston: Houghton Mifflin.

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice-Hall.
Landström, H., Harirchi, G., & Åström, F. (2012). Entrepreneurship: exploring the knowledge base. *Research Policy, 41*(7), 1154-1181.

Lebret, H. (2010). Stanford University and High-Tech Entrepreneurship: An Empirical Study. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1983858

Lee, L., Womh, P. K., Foo, M. D., & Leung, A. (2011). Entrepreneurial intentions: The influence of organizational and individual factors. *Journal of Business Venturing*, 26, 124-136.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. Journal of Vocational Behavior, 45(1), 79-122. DOI: 10.1006/jvbe.1994.1027
Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice, 33*(3), 593-617. https://doi.org/10.1111/j.1540-6520.2009.00318.x.

Liu, Z., Venkatesh, S., Murphy, S. E., & Riggio, R. E. (2021). Leader development across the lifespan: A dynamic experiences-grounded approach. *The Leadership Quarterly, 32*(5), 101382. DOI: 10.1016/j.leaqua.2020.101382

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. American Psychologist, 57(9), 705-717. https://doi.org/10.1037/0003-066X.57.9.705
Lohmöller, J. B. (1989). *Latent Variable Path Modeling with Partial Least Squares*. Physica, Heidelberg. https://doi.org/10.1007/978-3-642-52512-4

Mäkiniemi, J. P., Ahola, S., & Joensuu, J. (2020). A novel construct to measure employees' technology-related experiences of well-being: Empirical validation of the Techno-Work Engagement Scale (TechnoWES*). Journal of Work and Organizational Psychology, 5*(1): 4, 1–14.DOI: 10.16993/sjwop.79

Malebana, M. J., & Mahlaole, S. T. (2023). Prior entrepreneurship exposure and work experience as determinants of entrepreneurial intentions among South African university of technology students. *Frontiers in Psychology*, 14, 1-14. DOI: 10.3389/fpsyg.2023.1176065

McGrath, R. G. (2013). *The end of competitive advantage: how to keep your strategy moving as fast as your business*. Harvard Business Review Press.

Moraes, M. B., Galvan, E., Ribeiro, E. A., da Silva Vieira, E., Soares, Z. C. B., & da Cruz, L. S. (2020). Matrix of Strategic Entrepreneurship Process in Small and Medium Enterprises of the Brazilian and Canadian Aeronautical Industry. *International Journal of Advanced Engineering Research and Science*, *7*(9), 35-45. DOI: 10.22161/ijaers.79.5

Mulaik, S. A., James, L. R., Van Alstine, J., Bennett, N., Lind, S., & Stilwell, C. D. (1989). Evaluation of goodness-of-fit indices for structural equation models. *Psychological Bulletin, 105*(3), 430–445. https://doi.org/10.1037/0033-2909.105.3.430

Murari, K., & Pathak, S. (2021). Motivation-behaviour of high tech entrepreneurship in the aerospace industry in India. *Turkish Online Journal of Qualitative Inquiry, 12*(6), 9842-9858

NASA. (n.d.). Retrieved from https://www.nasa.gov/Mcmillan, A. J. (2019). Step-changes in tomorrow's aerospace technology: Anticipating the enablers and unexpected possibilities. Paper presented at the 2nd *International Conference on Advances in Aerospace Structures, Systems & Technology* (AASST 2019), May 8-9, 2019, London. [Conference Abstract]. CoMManDO Lab.

Oboreh, J. C., & Nnebe, E. G. (2019). Entrepreneurship Education and Skill Acquisition of Graduates in Public Universities South-East, Nigeria. *International Journal of Business & Law Research, 7*(4), 84-97.

Ohyama, A. (2015). Entrepreneurship and Job-relatedness of Human Capital. *Economica, 82*(328), 740-768.Osterwalder, A., & Pigneur, Y. (2013). *Business model generation: a handbook for visionaries, game changers, and challengers*. Wiley.

Peng, H., Zhou, C., & Liu, Y. (2020). Entrepreneurial experience and performance: From the aspect of sustainable growth of enterprises. *Sustainability, 12*(18), 7351. DOI: 10.3390/su12187351

Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management, 12*(4), 531–544. https://doi.org/10.1177/014920638601200408

Politis, D., & Gabrielsson, J. (2005). Exploring the role of experience in the process of entrepreneurial learning (Lund Institute of Economic Research Working Paper Series No. 2005/1).

Provost, F., & Fawcett, T. (2013). Data science for business: what you need to know about data mining and data-analytic thinking. O'Reilly Media.

PwC. (2022). *India: emergence of global leader in aviation*. Retrieved from https://www.pwc.in/assets/pdfs/industries/government-and-public-sector/india-emergence-of-a-global-leader-in-aviation-knowledge-report-on-the-indian-aviation-industry.pdf

Reuer, J. J., Matusik, S. F., & Jones, J. (2019). *The oxford handbook of entrepreneurship and collaboration.* OUP USA.

Riddle, L., & Brinkerhoff, J. (2011). Diaspora entrepreneurs as institutional change agents: The case of Thamel.com. *International Business Review, 20*(6), 670-680. https://doi.org/10.1016/j.ibusrev.2011.02.013

Ries, E. (2011). *The lean startup: how today's entrepreneurs use continuous innovation to create radically successful businesses*. Crown Business.

Sahinidis, A. G., Xanthopoulou, P. I., Tsaknis, P. A., & Vassiliou, E. E. (2021). Age and prior working experience effect on entrepreneurial intention. Corporate & Business Strategy Review, 2(1), 18-26. DOI: 10.22495/cbsrv2i1art2

Shane, S. (2000). Prior Knowledge and the Discovery of Entrepreneurial Opportunities. *Organization Science, 11*(4), 448-469. DOI: 10.1287/orsc.11.4.448.14602

Shapiro, C., & Varian, H. R. (1999). *Information rules: a strategic guide to the network economy.* Harvard Business School Press. DOI: 10.2307/1183273

Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of Economics, Commerce and Management, 2*(11), 1-22. Retrieved from https://ijecm.co.uk/wp-content/uploads/2014/11/21131.pdf

Society of Indian Aerospace Technologies & Industries. (n.d.). Retrieved from https://www.siati.org/

Spencer, L.M. and Spencer, S.M. (1993) Competence at Work: Models for Superior Performance. John Wiley & Sons, New York.

Super, D. E. (1957). The Psychology of Careers: An Introduction to Vocational Development. Harper & Brothers, New York.

These findings contribute to a better theoretical and empirical understanding of sustained high-tech SME growth,

U.S. Department of Defense. (n.d.) retrieved from https://www.defense.gov/

Uzzi, B. (1997). Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness. Administrative Science Quarterly, 42(1), 35-67. DOI: 10.2307/2393808

Van der Heijde, C. M., & Van der Heijden, B. I. (2006). A competence-based and multidimensional operationalization and measurement of employability. Human Resource Management, 45(3), 449-476. DOI: 10.1002/hrm.20119

Van Roy, V., & Nepelski, D. (2017). Determinants of high-tech entrepreneurship in Europe. *Joint Research Centre, JRC Scientific and Policy Reports* – EUR 28299 EN. https://doi.org/10.2791/96153

Zhao, H., O'Connor, G., Wu, J., & Lumpkin, G. T. (2021). Age and entrepreneurial career success: A review and a meta-analysis. Journal of Business Venturing, 36(1), 106007. https://doi.org/10.1016/j.jbusvent.2020.106007