ENTREPRENEURIAL INTENTION AND ANTECEDENTS AMONG THE STUDENTS OF HIGHER EDUCATION INSTITUTIONS IN KERALA

Thesis submitted to the

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For the award of degree of

DOCTOR OF PHILOSOPHY IN COMMERCE

Under the Faculty of Commerce and Management Studies

By

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Sindhu George

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ABBREVIATIONS

AGFI	Adjusted Goodness-of-Fit Index
AICTE	All India Council for Technical Education
ANOVA	Analysis of Variance
APS	Adult Population Survey
ARIIA	Atal Ranking of Institutions on Innovation Achievements
ASPIRE	A Scheme for Promotion of Innovation, Rural Industry and Entrepreneurship
ATT	Entrepreneurial Attitude
AVE	Average Variance Extracted
CB-CFA	Co-variance-based Confirmatory Factor Analysis
CB-SEM	Co-variance-based Structural Equation Modelling
CFI	Comparative Fit Index
CMIE	Centre for Monitoring Indian Economy
CMIN/DF	Minimum Discrepancy Function by Degrees of Freedom divided
COVID	Coronavirus Disease
CR	Composite Reliability
DIC	District Industries Centres
DST	Department of Science and Technology
EDC	Entrepreneurship Development Club
EEM	Entrepreneurial Event Model
EET	Entrepreneurial Event Theory
EFA	Exploratory Factor Analysis
EIM	Entrepreneurial Intention Model
ENI	Entrepreneurial Intention
ENM	Entrepreneurial Motivation
EPM	Economic Psychological Model
ESE	Entrepreneurial Self-efficacy
ESM	Entrepreneurial Support Model
FOF	Fear of Failure
GDP	Gross Domestic Product
GEM	Global Entrepreneurship Monitor
GFI	Goodness-of-Fit Index
HEIs	Higher Education Institutions
HSD	Honest Significant Difference
I&E	Innovation and Entrepreneurship
IEDC	Innovation and Entrepreneurship Development Centres
IIC	Institutions Innovation Council
ILO	International Labour Organisation
INN	Innovativeness

K-DISC	Kerala Development and Innovation Strategic Council
KIED	Kerala Institute of Entrepreneurship Development
KSUM	Kerala Startup Mission
K-SWIFT	Kerala- Single Window Interface for fast and Transparent Clearance
LFM	Luthje and Franke Model
MGA	Multi-Group Analysis
MIC	Ministry of Education Innovation Cell
MoE	Ministry of Education
MSME	Micro Small and Medium Enterprises
N-Ach Theory	Need Achievement Theory
NECI	National Entrepreneurship Context Index
NEP	National Education Policy
NFA	Need for Achievement
NIDHI	National Initiative for Developing and Harnessing Innovations
NIMAT	National Implementing & Monitoring Agency for Training
NISP	National Innovation and Startup Policy
NSTEDB	National Science and Technology Entrepreneurship Development Board
PBC	Perceived Behavioural Control
PES	Perceived Educational Support
PLC	Perceived Lack of Competencies
PLF	Perceived Lack of Fund
PLFS	Periodic Labour Force Survey
PLS	Perceived Lack of Support
PMMY	Pradhan Mantri Mudra Yojana
PRS	Perceived Relational Support
PSS	Perceived Structural Support
RMSEA	Root Mean Square Error of Approximation
RTP	Risk Taking Propensity
SCT	Social Cognitive Theory
SD	Standard Deviation
SEZs	Special Economic Zones
SLT	Social Learning Theory
SMEI	Structural Model of Entrepreneurial Intention
TBI	Technology Business Incubator
TEA	Total Early-Stage Entrepreneurial Activity
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UG	Under Graduate
UGC	University Grants Commission
WESO	World Employment and Social Outlook
YIP	Young Innovators Programme

CHAPTER 1
INTRODUCTION

Contents

1.1 Background of the Study

Entrepreneurship is a career path that enables the creation of new businesses and job opportunities, leading to economic growth and enhanced competitiveness. Entrepreneurship and innovation are essential for providing new employment opportunities. Entrepreneurs possess a unique capacity to recognise opportunities and take calculated risks in uncertain situations, resulting in the creation of new markets, product designs, and innovative processes (Reynolds et al., 2000). Governments and various entities have been considering Higher Education Institutions (HEIs) as a platform for boosting entrepreneurship among students.

Entrepreneurs play a significant role in society, making it crucial to understand the phenomenon of entrepreneurial behaviour. The intent to establish a business is regarded as the best predictor of entrepreneurial behaviour (Ajzen, 1991; Bird, 1988; Gulzar & Fayaz, 2019; Krueger et al., 2000). Entrepreneurial intention is a mental state in which a person's attitude, attention, and actions are focused on a certain goal or target. Such intention and behaviour during the start-up of a new business form the foundation of entrepreneurship (Bird, 1988). Entrepreneurial intention is usually viewed as a fundamental prerequisite to entrepreneurial activity, as it reflects the individual's preparedness and dedication to launching a new business venture. A

person who has a strong intention to launch their own business is more likely to take action in that direction and get through the obstacles. Several studies have demonstrated a positive relationship between entrepreneurial intention and actual start-up action (Ajzen, 1991; Krueger et al., 2000; Liñán & Chen, 2009), but there may be factors such as cultural variations, education, psychology, personality traits, demographics, social networks, contextual variables, etc. that would impact the strength of this relationship. Understanding entrepreneurial intention and antecedents has therefore become an important area of research in entrepreneurship.

In recent years, there has been a growing emphasis on investigating the factors that lead to entrepreneurial intention among the students in HEIs. Students in HEIs are considered an important source of future entrepreneurs, as they have access to education, training, and resources that help in the development of entrepreneurial skills and attitudes. However, studies have revealed that not all students have the same level of entrepreneurial intention, and the factors that impact their entrepreneurial intention would vary.

The main focus of the present study is to examine the influence of socio-demographic, economic and background variables, personality traits, psychological characteristics, environmental support factors, and perceived barriers on entrepreneurial intention. The study also intends to analyse the interrelationships between these antecedents and assess the intensity of their effect on students' entrepreneurial intentions. The findings of the study are expected to have important ramifications in both theory and practise. Taking into consideration the antecedents of entrepreneurial intention, this study would contribute to the development of a comprehensive model that combines various theories used in the entrepreneurship context. At a practical level, the study would equip authorities at HEIs with guidance for successfully analysing, designing, initiating, and administering entrepreneurship assistance schemes. The study may also provide useful insights for policymakers, emphasising the necessity of proactive actions to improve education, legal conditions, infrastructure, and financial assistance for budding entrepreneurs. Policymakers may be able to assist in the formation of startups and generate long-term economic growth by creating a conducive environment for the development of entrepreneurship. It may eventually lead to the establishment of a more entrepreneurial culture in HEIs and society as a whole.

1.2 Entrepreneurship: Addressing Social Issues and Promoting Economic Growth

Unemployment is a global problem as millions of people look for work to support themselves and their families. The COVID-19 outbreak has also negatively impacted unemployment growth, even in many developed countries. This is in addition to the other reasons like natural disasters, armed conflicts, technical advancements, and economic downturns that force firms to cut workers. According to the International Labour Organisation's World Employment and Social Outlook: Trends 2023 (WESO Trends), only 1.0% of the world's employment is expected to grow in 2023, which is less than half of the rate in 2022. The present global economic slump is expected to force more employees to accept lower-quality, poorly paid jobs that lack job security and social safety, aggravating disparities that have already been made worse by the COVID-19 crisis (International Labour Organisation [ILO], 2023). Developing countries, in particular, have been severely impacted by this problem, and India is no exception. The unemployment rate of India as of December 2022, based on The Centre for Monitoring Indian Economy's (CMIE) data, stood at 9% on a 30-day moving average basis (Jaichand, 2023). The state of Kerala, with over 34 million people, has been encountering its own particular issues with regard to unemployment. Kerala has struggled with high unemployment rates over the past several years despite having a population that is highly educated, with many people leaving the state in quest of better job opportunities abroad. The matter of unemployment and migration is complicated, and to successfully address it, significant attention and resources are needed. Entrepreneurial initiatives can address such unemployment issues and can also inspire migrants to settle back in their native countries.

Entrepreneurship has been recognised as an impetus for social advancement. Many countries, particularly those in the developing world, now prioritise the promotion of entrepreneurship as a means of economic growth, employment generation, innovation, and competitiveness (Farrukh et al., 2018; Naushad, 2018; Sulphey & Alkahtani, 2017). Numerous studies conducted worldwide have explored the use of entrepreneurship as a means of tackling unemployment (Padi & Musah, 2022). Entrepreneurship is indeed essential for lowering unemployment (Dilanchiev, 2014). There is a dynamic inter-relationship between self-employment and unemployment

rates (Thurik et al., 2008). The establishment of a new business can generate job opportunities, while individuals who are unemployed may choose to initiate their own ventures (Gaweł, 2010). Innovation and entrepreneurship are two formidable tools that, when skillfully integrated, can form a potent force for generating economic growth, business sustainability, social change and welfare (Beynon et al., 2019; Manik & Kusuma, 2021). In a developing country like India, small-scale industries are seen as more powerful. It significantly contributes to the nation's economic growth and GDP expansion through increased productivity, greater employment prospects, and a higher quality of life (Koster & Rai, 2008). Special regulations and support systems must be developed to encourage entrepreneurship right from the university level, taking into consideration of students' entrepreneurial intentions and perspectives on starting new businesses.

1.3 Exploring Entrepreneurship: A Global, Indian, and Kerala Perspective

Entrepreneurship is a social phenomenon that is influenced and controlled by culture, the economy, and legal frameworks, affecting global, national, and regional levels. As a result, it needs to be comprehended at all levels—global, national, and regional—as entrepreneurs face diverse opportunities and institutions that impact their activities.

1.3.1 Entrepreneurship: A Global Perspective

The Dynamics of Global Economic Advancement is experiencing a shift, with entrepreneurial activity taking centre stage as an engine of economic growth (Wu & Mao, 2020). Entrepreneurship drives global economic growth, innovation, and job creation, transcending geographical boundaries and generating new ideas, solutions, and opportunities. Further, global entrepreneurship is booming, with technology-driven startups, disrupting industries and creating new markets. Tech hubs and innovation ecosystems are emerging in major cities, promoting collaboration and talent attraction. In addition, entrepreneurship is crucial for economies to expand and bounce back from shocks brought on by the conflict in Russia and Ukraine as well as the COVID-19 pandemic. The Global Entrepreneurship Monitor [GEM] (2021) emphasises the importance of entrepreneurship for boosting the economy and product and market innovation (Mueller & Thomas, 2001). Moreover, entrepreneurship must be viewed from a sustainable perspective as a force for sustainable economic

development, resolving economic and social problems (Bakator et al., 2018; Nitu-Antonie et al., 2022). Global entrepreneurship focuses on addressing societal and environmental challenges, such as poverty, healthcare, education, and environmental sustainability, generating sustainable financial returns, and creating positive impacts. Further, social progress is accelerated through entrepreneurship, which also creates jobs, productivity, innovation, and competitiveness (Naushad, 2018). Bosma and Harding (2006) stated that as much as one-third of the variances in economic growth between countries may be attributable to variations in entrepreneurial activity. Hence, encouraging entrepreneurship and innovation is now a top priority for many countries, and the United Nations has included it in the Sustainable Development Goals. Further, Institutions must support an atmosphere that encourages entrepreneurship, remain in touch with other economies, keep an eye out for new opportunities, and monitor how entrepreneurial perceptions, attitudes, and actions are doing throughout the world (Bosma et al., 2021). Global entrepreneurship is gaining prominence due to increased resources and support systems, government policies, funding, and mentorship programmes. Incubators, accelerators, and co-working spaces are essential components of the entrepreneurial ecosystem, providing startups with networks and resources. Moreover, the digital revolution and globalisation enable cross-border entrepreneurship through e-commerce platforms, digital marketing, and remote working, enabling easy global market access and collaboration.

1.3.2 Entrepreneurial Tendency in India: A Growing Trend

India has the third-largest start-up ecosystem in the world, with 73,000 start-ups spread across 56 different industries (Shukla et al., 2023). The government of India launched 'The Start-up India Initiative in 2016 to nurture start-up ecosystems in the country. New venture creation is supported by the government and policymakers. Entrepreneurship is acknowledged as a driving force behind the country's economic development (Anwar & Saleem, 2019). India ranks fourth among 51 nations in terms of having a high-quality entrepreneurial ecosystem, according to the GEM (2023) National Entrepreneurship Context Index (NECI). The improvement in the entrepreneurship ecosystem can be attributed to the Indian government's dedication to encouraging entrepreneurship by supporting new programmes like Startup India, Stand Up India, Atal Innovation Mission, Pradhan Mantri Mudra Yojana (PMMY),

Make in India, Digital India, the National Skill Development Mission, etc. The Promotion of entrepreneurship through television programmes like Shark Tank India provides aspiring business owners with a platform on which to showcase their ideas and seek funding from investors, which not only increases visibility for entrepreneurs but also promotes the culture of entrepreneurship in the country.

The COVID-19 pandemic scenario changed many conventional ways of doing things. People started to think about alternate income sources other than earning money from a stable job. There was a visible boost in local entrepreneurship in farming, food processing units, etc., and globally, it has sparked many digital transformations across all industries. It increased digital traffic, giving tech-based entrepreneurs a head start. Digital education, finance, health and well-being, shared office space, and remote working tools are some of the key start-ups that have grown during the post-COVID-19 situation in India (Shukla et al., 2023). Indian entrepreneurs top the globe in terms of grasping new opportunities brought up by the pandemic (GEM, 2023).

The GEM Adult Population Survey (APS) is crucial for understanding the growing entrepreneurial culture in India. With a representative sample of 2000 adults, APS measures global entrepreneurial activity and provides insights into the attitudes, aspirations, and behavioural patterns of individuals regarding entrepreneurship. Table 1.1, derived from the GEM APS, provides a comprehensive view of the indicators for entrepreneurial behaviour and attitudes in India over the past decade.

Table 1.1

The Trend of Indicators for Entrepreneurial Behaviour and Attitudes in India

Indicators	(Percentage of 18-64 Population)									
	2022	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Perceived Opportunities (Good opportunities for starting a firm in the local area)	75.45	83.41	82.50	83.10	49.83	44.92	44.34	37.79	38.91	41.43
Perceived Capabilities (Possess necessary skills and knowledge for business start-up	78.08	85.99	81.70	85.20	52.22	42.05	43.99	37.84	36.70	55.78
Fear of Failure (Prevent them from starting a business.)	53.97	54.14	56.80	62.37	50.06	39.56	37.53	44.01	37.67	38.91

Indicators	(Percentage of 18-64 Population)									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Entrepreneurial Intention (Latent entrepreneurs planning to start a business within three years.)	20.08	18.14	20.30	33.30	20.64	10.33	14.88	9.15	7.66	22.79
High Status to Successful Entrepreneurs (Entrepreneurs gain national status.	90.52	87.01	86.10	92.30	65.03	56.18	46.70	46.65	66.16	70.36
Entrepreneurship as a Good Career Choice (People view starting a business as a desirable career choice)	82.46	89.47	85.20	89.54	63.72	52.96	44.40	39.33	57.93	61.49
Total early-stage Entrepreneurial Activity (TEA) (New business nascent entrepreneurs' percentage)	11.52	14.37	5.30	14.97	11.42	9.28	10.59	10.83	6.60	9.88
Established Business Ownership (Owner-manager of an established business)	9.04	8.51	5.90	11.92	6.96	6.22	4.60	5.50	3.73	10.66

Source: APS Survey (India) GEM Data

Table 1.1 presents a compiled data of the entrepreneurial landscape of India, indicating a rising entrepreneurial culture in the country. It is noteworthy that there has been a rise in perceived capabilities and opportunities since 2018, suggesting the positive impact of government policies and the resilience of the young population, particularly in adapting to post-Covid-19 industry transformations. However, despite the increasing trend in certain indicators of entrepreneurial intentions, overall entrepreneurial intentions show a decline. The fear of failure remains a major factor contributing to this decline, as individuals tend to opt for safer career paths. Nevertheless, successful entrepreneurs continue to be highly esteemed, reflecting society's recognition of their valuable contributions. It is encouraging to note that starting a business is still seen as an attractive career choice. The Total Early-Stage Entrepreneurial Activity (TEA) has experienced fluctuations, with a notable increase from 9.3% in 2017-18 to 14.4% in 2021, followed by a slight decline to 11.52% in 2022. Similarly, established entrepreneurship has shown growth from 6.2% in 2017 to 9.04% in 2022. These figures highlight the importance of studying entrepreneurial intentions and their antecedents, as intention serves as the driving force behind entrepreneurial behaviour. Such insights can guide efforts to support and promote

entrepreneurship, foster economic growth, and empower aspiring entrepreneurs to navigate the evolving business landscape effectively.

1.3.3 Kerala: Paving the Way for Entrepreneurship and Innovation

The southern Indian state of Kerala has a distinctive culture and economy. The state has a long history of being renowned for its dedication to education and outstanding human development index. Kerala is rapidly progressing towards its goal of becoming an entrepreneur's paradise. Kerala has been selected as a top performer for developing an excellent start-up environment in the States' Startup Ranking, 2021 (Abhivad, 2022). According to the Global Startup Ecosystem Report, Kerala's startup environment is the fourth-best globally in terms of access to affordable talent and the best in Asia (International Network for SMEs [INSME], 2022). The capacity to recruit and retain tech talent is measured in the ranking.

Government assistance and a tech skill pool are the reasons why startups relocate to Kerala and succeed (Kumar, 2022). Kerala's startup environment was initiated by the establishment of the Technopark Technology Business Incubator in 2006. It grew to 150 startups in six years, was elevated to become the State Nodal Agency, and was renamed Kerala Startup Mission in 2016. The Kerala Startup Mission has established itself as an important part of India's Technology Startup sector, providing grants, incubators, and office space to more than 3900 startups. The Government of Kerala has declared 2022 the Year of Entrepreneurs and has set a lofty objective of launching 15,000 startups during the next five years (Kerala Startup Mission [KSUM], 2022). Kerala is attempting to become a hub for entrepreneurs through a number of government initiatives, including Innovation and Entrepreneurship Development Centres (IEDCs), Young Innovators Programmes, and incubation and acceleration programmes (KSUM, 2022). In addition, K-DISC promotes innovation to address Kerala's second-generation developmental problems, creating an innovation-friendly ecosystem and transforming Kerala into a global innovation capital.

In Kerala, the Micro, Small, and Medium Enterprises (MSME) sector continues to be a significant source of revenue and employment. The Department of Industries and Commerce, Government of Kerala, is putting several programmes into place to assist MSMEs. Kerala is setting up sector-specific industrial parks to promote its core competencies and attract investments. The state has pioneered legislation encouraging

ease of doing business to attract investments. The State Government has established K-SWIFT, Single Window Interface for Fast and Transparent Clearance, an online single-window clearance mechanism to facilitate quick and efficient granting of licences, permits, and clearances. Over 1 lakh new enterprises have been founded in the state during the year 2022–2023 under the 'Year of Entrepreneurship' initiative. A scale-up programme for 1,000 businesses chosen from the State's existing enterprises has been announced with a goal of reaching a turnover of one lakh crore in four years. Make in Kerala, a massive project to increase domestic production and employment, entrepreneurship, and investment opportunities in Kerala, was announced by the finance minister during the Budget Speech 2023–24 with Rs. 100 crores earmarked for the year (C. Balagopal, 2023).

The State government and banks assist and enable MSMEs. The development of Kerala's conventional industrial sectors and MSME sector is facilitated by the District Industries Centres (DIC). DIC promotes an entrepreneurial culture among the youth in the State by offering financial support for entrepreneurship development clubs at the high school and college levels. Additionally, the Department has prioritised helping startups and setting up business incubators at District Industries Centres.

According to the Ministry of Micro, Small, and Medium Enterprises (2019), Kerala ranks 12th in terms of the number of MSMEs in India. There are around 23.79 lakh MSME units in the state, of which 23.58 lakh are microenterprises. These MSMEs collectively provide employment opportunities to around 44.64 lakh individuals. Kerala's fragmented land banks pose challenges for large-scale industries, but the state government is addressing this by boosting MSME growth.

Kerala has made significant investments in infrastructure, talent development, communication networks, and connections, providing the state with an inherent edge for the growth of MSMEs. The state has also adopted microfinance programmes to tackle poverty, such as the Kudumbashree programme, which focuses on poverty eradication and women's empowerment. Kerala has also become a hub for coir manufacturing, khadi, handloom industries, and tourism, with the coir sector playing a vital role in the MSME ecosystem and potentially boosting exports through technological innovations.

Table 1.2
Details of New MSME Units Established Over the Last Six Years, Including Investment and Employment Figures

Year	No. of MSME units	Investment (in crore)	Employment (in number)
2017-18	15,468	1,249.61	51,244
2018-19	13,826	1,321.94	49,068
2019-20	13,695	1,338.65	46,081
2020-21	11,540	1,221.86	44,975
2021-22	15,285	1,535.09	56,233
2022-23	100000	6274.00	2,20,285

Source: Kerala State Planning Board (2023)

Table 1.2, presented above, highlights the crucial role of MSMEs in employment generation, economic growth, and development in Kerala.

Balagopal (2023) refutes the claim that Kerala does not pose a friendly environment for industrial investment. Kerala's highly educated workforce, with high literacy rates, can contribute to industry success across various sectors. Further, Kerala's infrastructure development, including well-connected roads, airports, and international ports, can support efficient goods movement and industry operations. Moreover, Kerala's government promotes industrial growth through incentives, tax benefits, and subsidies while establishing industrial parks and Special Economic Zones (SEZs) with state-of-the-art infrastructure. Besides, Kerala's natural beauty, cultural heritage, and tourism offer opportunities for the tourism, hospitality, and entertainment sectors, contributing to economic growth. Furthermore, Kerala's IT destinations, including Thiruvananthapuram and Kochi, boast thriving IT parks and technology hubs, fostering a strong ecosystem. Thus, Kerala offers promising industrial growth and investment opportunities.

1.4 Promoting Youth Entrepreneurship in Kerala: An Overview of Budget Allocation for the Youth Entrepreneurship Development Programme

The government of Kerala has allocated funds for youth entrepreneurship development programmes, emphasising the importance of promoting economic expansion, innovation, and job creation. Over the years, the budget allocations for the youth entrepreneurship development programmes in Kerala have shown remarkable growth, demonstrating the government's commitment to empowering young

entrepreneurs in the state. The following table 1.3 shows the budget allocation for the youth entrepreneurship development programme provided by the government of Kerala for the past ten years.

Table 1.3
Budget Allocations for the Youth Entrepreneurship Development Programmes in Kerala

Five Year Plan	Annual Year	Fund Allocated (Rs. In Lakh)
12th Five -Year Plan	2012-2013	-
	2013-2014	-
	2014-2015	1795
	2015-2016	3000
	2016-2017	4000
13th Five –Year Plan	2017-2018	6999
	2018-2019	7000
	2019-2020	7000
	2020-2021	6500
	2021-2022	5875
14th Five–Year Plan	2022-2023	7052
	2023-2024	7052

Figures compiled from Kerala Budget Annual Plan Volume II from 2012 to 2024

The budgetary resources for Kerala's Youth Entrepreneurship Development Programme have increased significantly over time. The budget provision for the development of youth entrepreneurship began with an allocation of Rs. 1795 lakh in the 12th Five-Year Plan's annual plan of 2014–15 and has now reached Rs. 7052 lakh in the 2023–24 annual plan. This consistent rise in budgetary support indicates the government's constant commitment to nurturing and promoting entrepreneurial talent among the youth. Further, these funds are allocated for various support initiatives, including evangelization support, incubation support, knowledge and skill enhancement, funding and enterprise development, production and marketing, women entrepreneurship and start-up programmes, and other new initiatives. Additionally, it is worth noting that in the annual plan of 2022-2023, the government has allocated Rs. 450 lakhs for support to colleges under the evangelization support category, including annual grants for innovation and entrepreneurship development centres (IEDCs), grants for new IEDCs, faculty development programmes, technical workshops, hackathons, preincubation training, etc.

The consistent increase in budget allocations for the youth entrepreneurship development programmes in Kerala reflects the government's focus on supporting

young entrepreneurs' ecosystems. As the government is spending a lot of resources on this, it is necessary to utilise these resources diligently. Understanding entrepreneurial intention and its precursors in detail will help channel these resources more wisely.

1.5 Promoting Entrepreneurship within Higher Education Institutions

Promoting entrepreneurship within higher education institutions is vital for fostering innovation, economic growth, and personal development among students. By integrating entrepreneurship into curricula and offering specialized training programs, universities can nurture a culture of creativity, risk-taking, and problem-solving. Encouraging students to explore their entrepreneurial aspirations equips them with the necessary skills and mindset to identify opportunities, develop innovative solutions, and navigate the challenges of starting and running a business. Furthermore, establishing incubators, mentorship programs, and networking events within the campus ecosystem provides students with invaluable support and guidance on their entrepreneurial journey. Ultimately, by embracing entrepreneurship, higher education institutions play a crucial role in shaping the next generation of visionary leaders and contributing to the overall progress of society.

1.5.1 Promoting Entrepreneurship within Higher Education Institutions in India

India has one of the largest higher education systems in the world, with 1113 universities, 43796 colleges, and 11,296 stand-alone institutions, for a total enrolment of 4,13,80,713 students (Ministry of Education, 2021). In India, many of the HEIs have set up entrepreneurship centres and incubation centres to provide funding, access to investors, and mentorship. There are around 2027 incubation centres established in various HEIs registered under the MoE's (Ministry of Education) Institutional Innovation Council. The MoE has established the MoE's Innovation Cell (MIC) to cultivate a culture of innovation and create the necessary ecosystem across all HEIs in India. MIC will work closely with national and regional organisations to create regulations that support and advance India's innovation culture. There are around 6411 HEIs registered under the MoE's Institution Innovation Council. The National Innovation and Start-up Policy (NISP) 2019 is yet another step that aims to guide HEIs in fostering student-driven innovations and startups. Thus, HEIs in India play a

crucial role in fostering entrepreneurship by providing students with essential resources and supporting legislation that fosters innovation and entrepreneurship.

In order to achieve India's goal of attaining a $5 trillion GDP economy by 2024, it is crucial for the country's HEIs to prioritise and foster entrepreneurship and innovation. By focusing on both quantitative and qualitative excellence, HEIs can create a competitive and conducive education system. Emphasising innovation, skill development, and collaboration between students and teachers fosters a culture of entrepreneurship. This can be further facilitated by implementing reformative policies that encourage entrepreneurial thinking and make HEIs more entrepreneurial and inventive. This would increase the number of inventors and entrepreneurs, enabling India to elevate its 40th position in the Global Innovation Index, 2022 (Dutta et al., 2022) and achieve global higher education standards.

1.5.2 Fostering Entrepreneurial Spirit in Higher Education Institutions in Kerala

Kerala's robust educational system and high rate of literacy result in a large number of well-educated graduates each year. There are 1847 Higher Education Institutions (HEIs) in Kerala, comprising 23 Universities, 1448 Colleges, and 376 stand-alone institutions with an estimated 10,87,978 undergraduate students (Ministry of Education, 2021). The state faces challenges in finding enough jobs to employ all of its graduates due to the dearth of companies in the state and the inability of existing industries to hire all the graduates. Moreover, the state government has undertaken initiatives to enhance graduates' entrepreneurial mindsets and career prospects. The need of the hour is to encourage young people to consider entrepreneurship as a viable career option and support them in their endeavours to launch their own enterprises. A shift in perspective towards entrepreneurship can lead to more economic growth, innovation, and job creation.

The government and various non-governmental organisations have taken initiatives to promote entrepreneurship in Kerala's higher education institutions. These include the establishment of entrepreneurship development clubs, organising industry linkage programmes, boot camps, hosting startup competitions and events, etc. Many HEIs provide their students with hands-on experience in entrepreneurship through partnerships with local businesses and industries. The Kerala Startup Mission

(KSUM), through the establishment of IEDCs, plays a crucial role in promoting entrepreneurship among college students in Kerala. Many institutes of higher learning have set up incubation centres to support student startups, offering facilities and resources like office space, mentorship, networking opportunities, access to funding, and legal support. These initiatives reflect a positive development for the promotion of innovation and entrepreneurship in higher education institutions.

Despite the government's ongoing efforts, the number of graduates who choose entrepreneurship as a career is minimal. The rationale for founding a new business has been cognitively planned and is based on perceived opportunities. The present study aims to develop a conceptual model that reflects the relationship between various factors leading to entrepreneurial intention among higher education students in Kerala.

1.6 Entrepreneurial Intention and Antecedents

Entrepreneurial intention is an individual's inner desire and thinking that drive them to pursue an entrepreneurial activity. It is the deliberate choice and willingness to participate in entrepreneurial activities. Having the intention to start a business is a crucial requirement before putting forth actual effort to do so (Lakovleva & Kolvereid, 2009). Thus, entrepreneurial intention deserves a lot of attention as it is intended to seek opportunities (Krueger et al., 2000). Intentions may not always be carried out, but they do influence behaviour (Ajzen, 1991). A longitudinal study conducted by Kautonen et al. (2015) found future start-up actions and entrepreneurial intention to be associated. Numerous internal factors, such as personality characteristics, attitudes, self-efficacy, and motivation, as well as external factors like social, structural, and institutional support, have an impact on the decision to start a business. These elements may facilitate the process or hinder it. Understanding the antecedents of entrepreneurial intention is crucial for predicting and fostering entrepreneurship.

Intention-based studies facilitate understanding of the antecedents that determine entrepreneurial intention (Bird, 1988; Davidsson, 1995). The theoretical model of the entrepreneurial event suggests that a person's intention to start a business is influenced by their perceptions of its desirability and feasibility and their propensity to act in response to environmental opportunities (Shapero & Sokol, 1982). The planned

behaviour model states that conscious intentions are a blend of attitudes towards the behaviour, subjective norms impacted by the surroundings, and perceived behavioural control (Ajzen, 1991). Moreover, Lüthje and Franke (2003) proposed a structural model of entrepreneurial intention that incorporates contextual variables. They recognised that entrepreneurial activity is significantly influenced by external factors, such as perceived support and barriers. Unlike the Entrepreneurial Event approach and the Planned behaviour model, which failed to consider exogenous factors, Lüthje and Franke's approach acknowledges the significance of these external influences for entrepreneurial activity. The Lüthje and Franke model (LFM) expanded the understanding of antecedents by considering the impact of personality traits, attitudes, and a variety of social, economic, and environmental variables on entrepreneurial intention. Further, personality traits can play a critical role in determining the behaviour of an individual (Farrukh et al., 2018). Studies have demonstrated that an individual's personality traits can significantly influence their entrepreneurial intentions (Ahmed et al., 2021; Biswas & Verma, 2021; Zhuang et al., 2022). Moreover, the need for achievement, as emphasised by Nabil and Zhang (2020), serves as a prominent personality attribute that significantly impacts people's decisions to start entrepreneurial ventures. Individuals with a strong need for achievement are driven by a desire to excel, making them more likely to pursue entrepreneurial endeavours. Further, individuals with a risk-taking propensity embrace uncertainty and calculated risks, aligning with entrepreneurship's inherent uncertainty. Besides, individuals with high innovativeness naturally generate novel ideas and creative solutions, fostering entrepreneurial activities. Furthermore, perceived support and barriers may also significantly impact entrepreneurial intention by shaping beliefs, motivations, and actions in individuals. Perceived support from various sources, like family, educational institutions, mentorship, funding, and policies, can boost entrepreneurial intentions and engagement, providing confidence, knowledge, and networks for aspiring entrepreneurs. On the other side, perceived barriers, like financial constraints, regulatory complexities, a lack of support, and a fear of failure, can hinder entrepreneurial intention. Earlier studies revealed the negative influence of perceived barriers on entrepreneurial intentions (Dölarslan et al., 2020; Ismail, 2015; Malebana, 2015; Rasool et al., 2022). Another important study by Turker and Selcuk (2009) focused on perceived environmental support as an

antecedent of entrepreneurial intention. They highlighted the influence of perceived educational support, perceived relational support, and perceived structural support in shaping individuals' entrepreneurial intentions. These elements of perceived environmental support contribute to an individual's belief in the availability of resources, guidance, and social networks necessary for entrepreneurial endeavours. An aspiring entrepreneur's perception of available educational resources and opportunities for enhancing entrepreneurial knowledge and skills can play a crucial role in shaping entrepreneurial intention by equipping individuals with the necessary knowledge, competencies, and confidence to pursue entrepreneurial endeavours. Many studies found perceived educational support to be a contributing factor to entrepreneurial intention (Phuong et al., 2020; Turker and Selcuk, 2009). Besides, an individual's intention to establish a business can be strengthened by support from family and peer influence (Edelman et al., 2016). Earlier studies have established the relationship between perceived relational support and entrepreneurial intention (Denanyoh et al., 2015; Mohammed, 2019). The perception of an enabling environment for entrepreneurship, including policies, government initiatives, funding, infrastructure, and market access, can play a vital role in influencing entrepreneurial intention. Earlier studies have demonstrated that the perception of supportive infrastructure and environment increases entrepreneurial intentions and engagement in activities, promoting positive entrepreneurial behaviour (Gelard & Saleh, 2011; Turker & Selcuk, 2009). Additionally, it is worth noting that entrepreneurial motivation may also act as a driving force behind an individual's decision to pursue entrepreneurial endeavours. It encompasses intrinsic desire, passion, and personal goals that may motivate a person to choose entrepreneurship. Individuals motivated by autonomy, financial success, and personal fulfilment may directly influence their intention to engage in entrepreneurial activities. Hence, self-motivation is a crucial component for sustaining entrepreneurial intention (Tanveer et al., 2013).

Individuals' socio-demographic, economic, and background factors can also significantly influence their entrepreneurial intentions, impacting their attitudes, beliefs, and choices. Several elements within this context play a role in determining entrepreneurial intentions. Gender can influence entrepreneurial intention due to cultural conventions, expectations, and access to resources. Many earlier studies have

proven that gender disparities exist in the degree of entrepreneurial intention and its antecedents (Adefunke et al., 2019; Vamvaka et al., 2020; Wang & Wong, 2004). Further, growing up in an entrepreneurial family may offer exposure to business, learning opportunities, and a supportive environment that can nurture entrepreneurial aspirations. This environment may influence individuals to pursue entrepreneurship, providing inspiration and influence. Studies have discovered a significant influence of family business background on entrepreneurial intention (Georgescu & Herman, 2020; Hoffmann et al., 2015; Keat et al., 2011; Wang & Wong, 2004). Moreover, family income may also impact entrepreneurial intention by affecting access to resources, education, and risk-taking abilities. Higher-income individuals can offer financial security, while lower-income individuals may face greater barriers to accessing capital, which can affect their entrepreneurial intentions. Further, studies have examined the influence of family income in determining entrepreneurial intention (Janeska-Iliev & Debarliev, 2020; Gujrati et al., 2019; Wang et al., 2011; Zeb et al., 2021). Besides, the stream of study can also influence an individual's entrepreneurial intention (Manuere et al., 2013; Schwarz et al., 2009). Subjects like business, management, or entrepreneurship can offer knowledge, skills, and networks that may enhance entrepreneurial intentions. Additionally, exposure to entrepreneurship-related courses may foster an entrepreneurial mindset that can offer practical insights into business creation and innovation. Moreover, education in entrepreneurship may improve the perception of its viability (Krueger and Brazeal, 1994). Further, educational institutions' support and resources can significantly influence students' entrepreneurial intentions (Saeed et al., 2014b). Additionally, colleges with an entrepreneurial culture and innovation centres may offer an environment that encourages and nurtures entrepreneurial aspirations. Universities may encourage students to pursue entrepreneurial careers by providing role models, networks, and mentoring support. (Franke and Luthje, 2004; Turker and Selcuk, 2009). The university context, both directly and indirectly through entrepreneurship education, can have a favourable and considerable impact on entrepreneurial intention (Díaz-Casero et al., 2012).

Understanding entrepreneurial intention and its antecedents is crucial for fostering entrepreneurship. Addressing the factors that contribute to entrepreneurial intention

can help policymakers, educators, and support organisations create an enabling environment that nurtures entrepreneurial aspirations, leading to economic growth and development.

1.7 Need and Significance of the Study

Fostering an entrepreneurial culture is crucial for addressing the critical issues that developing nations confront, such as unemployment and brain drain. Educational institutions have an important role in promoting entrepreneurial culture among the younger generation. Many government and non-government organisations are collaborating with educational institutions to guide and promote entrepreneurship. The significance of the present study stems from the need to improve the effectiveness of entrepreneurial initiatives and programmes targeted at developing a positive attitude and intention towards entrepreneurship that lead to entrepreneurial behaviour. Understanding the major determinants of entrepreneurial intention and behaviour is crucial for developing customised programmes that align with the specific requirements of nurturing entrepreneurial intention, thereby developing a pool of potential young entrepreneurs for the future. Further, studying antecedents of entrepreneurial intention would help to identify specific skills, competencies, and knowledge that are essential for aspiring entrepreneurs. Higher education institutions could design curricula and training programs to equip students with essential qualities for entrepreneurial success, including critical thinking, creative problem-solving, and risk-taking abilities, ensuring a fulfilling journey as entrepreneurs. Moreover, studying the antecedents of entrepreneurial intention would help to identify the barriers and difficulties that students may encounter while contemplating entrepreneurship as a career choice. Moreover, this can guide policymakers and educators in developing strategies to address the barriers, such as providing mentorship, access to funding, and support networks, to increase the possibility that students will pursue entrepreneurship.

The early phases of the entrepreneurial process can be better understood by studying entrepreneurial intentions among students. Students' entrepreneurial intention is strongly influenced by their personality traits, attitudes, self-efficacy, motivation, perceptions of support and barriers, and other factors. In order to provide information that can help universities, educational institutions, and governments develop

entrepreneurial spirit and culture, it is crucial to study the factors that would contribute to entrepreneurial intention among students. Further in-depth research is thus necessary to fully comprehend the relationship between personality traits, entrepreneurial attitude, motivation, self-efficacy, perceived environmental support, and barriers leading to entrepreneurial intention. Moreover, the significance of this study stems from its potential to assist in the early recognition and nurturing of aspiring innovators and business people in Kerala. This can eventually lead to the transition of individuals from inactive to active economic contributors. Further, the implementation of study-based policies may serve to provide graduates and the community at large with better long-term career opportunities and living standards. Therefore, the study's significance lies in its ability to offer useful information that would assist institutions in creating an environment that is supportive of entrepreneurship and would help policymakers implement initiatives that support and encourage entrepreneurial activities.

1.8 Structure of the Thesis

The thesis is structured into nine distinct chapters, which are outlined as follows:

Chapter 1: Introduction

The chapter includes the background of the study, a brief outline of the topic, and the need and significance of the study.

Chapter 2: Review of Literature

The chapter includes a comprehensive review of existing literature relevant to the research topic and also includes the research gap identified in the existing body of knowledge.

Chapter 3: Theoretical Framework and Intention-Based Models

The chapter includes basic information related to entrepreneurship, an individual as an entrepreneur, entrepreneurial intention, theories related to entrepreneurial intention, and intention-based models.

Chapter 4: Research Methodology

The chapter presents a comprehensive overview of the research process, outlining the research problem, research questions, major hypotheses, scope of the study, research methodology, design of the questionnaire, conceptual framework, details of the pilot study, data analysis tools, operational definitions, and limitations.

Chapter 5: Entrepreneurial Intention and its Antecedents Among the Students of Higher Education Institutions in Kerala

The chapter includes the first objective of the study. The level and extent of entrepreneurial intention and its antecedents across selected socio-demographic, economic, and background factors are examined.

Chapter 6: Level of Perceived Barriers Hindering the Formation of Entrepreneurial Intention Among the Students of Higher Education Institutions in Kerala

The chapter includes the second objective of the study. The level of perceived barriers that hinder the formation of entrepreneurial intention across selected socio-demographic, economic, and background factors is examined.

Chapter 7: Exploring the Antecedents of Entrepreneurial Intention among the Students of Higher Education Institutions in Kerala: A Mediation and Moderation Analysis

The chapter includes the third, fourth, fifth, and sixth objectives of the study. The direct and indirect influence of selected entrepreneurial personality traits, perceived environmental support factors, and perceived barriers on entrepreneurial intention using psychological characteristics including entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation as mediating variables was examined. Additionally, the moderating effect of institutional support for entrepreneurship and innovation on the relationship between psychological characteristics and entrepreneurial intention was also examined.

Chapter 8: Summary of Findings and Conclusion

The chapter presents the summary of findings and conclusions based on data analysis and interpretation.

Chapter 9: Recommendations, Implications, and Scope for Further Research

The chapter includes recommendations, implications and scope for further research.

The present chapter provides the study's background information. It also emphasises the need and significance of the study, highlighting how crucial it is to look into entrepreneurial intention and its antecedents. The chapter concludes with a brief overview of the chapter structure, serving as a road map for the following chapters.

CHAPTER 2

REVIEW OF LITERATURE

Contents

2.1 Introduction

The present chapter explores the comprehensive body of knowledge surrounding entrepreneurial intention, with a particular emphasis on exploring the relationship between psychological characteristics, personality traits, environmental support factors, barriers, and the intention to commence a business. It also explores the literature focusing on the association of socio-demographic, economic, and background factors with entrepreneurial intention and its antecedents. The study intends to identify the gaps in existing research and lay the groundwork for the present study on the variables influencing entrepreneurial intention by evaluating the body of existing literature. In addition to identifying the research gap, the chapter also incorporates the formulation of hypotheses. Following a comprehensive examination of the previous studies, hypotheses are developed to address the identified research gaps and propel the advancement of knowledge in this field. These hypotheses serve as a pivotal component of the chapter, providing a foundation for the present study.

The reviews of literature related to the study are divided into six parts such as:

1. Entrepreneurial Intention
2. Psychological Characteristics. This part is again divided into three sub-parts:
    - Entrepreneurial Attitude
    - Entrepreneurial Self-Efficacy

- Entrepreneurial Motivation

3. Personality Traits. This part is again divided into six sub-parts:
    - Need for Achievement and Entrepreneurial Intention
    - Risk-taking Propensity and Entrepreneurial Intention
    - Innovativeness and Entrepreneurial Intention
    - Need for Achievement and Entrepreneurial Attitude
    - Risk-Taking Propensity and Entrepreneurial Attitude
    - Innovativeness and Entrepreneurial Attitude
4. Perceived Environmental support factors. This is divided into two sections:
    - Perceived Environmental Support and Entrepreneurial Intention. This part is again divided into three sub-parts:
        - Perceived Educational Support and Entrepreneurial Intention
        - Perceived Relational Support and Entrepreneurial Intention
        - Perceived Structural Support and Entrepreneurial Intention
    - Perceived Environmental Support and Entrepreneurial Motivation. This part is again divided into three sub-parts:
        - Perceived Educational Support and Entrepreneurial Motivation
        - Perceived Relational Support and Entrepreneurial Motivation
        - Perceived Structural Support and Entrepreneurial Motivation
5. Perceived Entrepreneurial Barriers. This part is divided into three sub-parts:
    - Perceived Entrepreneurial Barriers and Entrepreneurial Intention
    - Perceived Entrepreneurial Barriers and Entrepreneurial Attitude
    - Perceived Entrepreneurial Barriers and Entrepreneurial Self-efficacy
6. Socio-Demographic, Economic and Background Factors. This part is again divided into 8 sub-parts:
    - Gender

- Stream of Study
- Family Income
- Family Business Background
- Entrepreneurial Course
- Membership in Innovation and Entrepreneurship-oriented Cells or Clubs
- Entrepreneurial Support Activities
- Institution support for Innovation and Entrepreneurship

2.2 Entrepreneurial Intention

Intention is a key factor in understanding human behaviour. It has been reported that intention is the strongest predictor of entrepreneurial behaviour (Ajzen, 1991). Entrepreneurial intention is a person's conscious decision and desire to engage in entrepreneurial activity. Having the intention to start a business is a crucial requirement before putting forth the actual effort to do so (Lakovleva & Kolvereid, 2009). The actions taken to launch a new firm are seen as the outcome of a person's intention to become an entrepreneur (Belchior & Lyons, 2021).

Entrepreneurial intention is a psychological construct that represents a person's readiness to start and manage their own business. It reflects the individual's desire to work for themselves, their ability to spot opportunities, and their confidence in their own abilities. It is the most accurate indicator of actual behaviour, as it is the intention to respond to an event in a particular way. The relationship between behaviour and entrepreneurial intention has been studied across the globe (Adam & Fayolle, 2015; Mahmood et al., 2020).

Many interpretations of entrepreneurial intentions have been noted in previous studies. According to Bird (1988), entrepreneurial intention is a mental state in which a person's attitude, attention, and actions are focused on a certain goal or target. Katz and Gartner (1988) described entrepreneurial intention as seeking out information and other resources to launch a business. Tubbs and Ekeberg (1991) described it as a symbol of planned actions to carry out entrepreneurial behaviour. Reynolds and Miller (1992) considered it as the potential entrepreneur's personal commitment to starting a business. Further, Kolvereid and Isaksen (2006) stated that entrepreneurial intention

assessment can forecast new venture creation and development. In addition, Krueger et al. (2000) stated that entrepreneurial intention is an effective tool for predicting entrepreneurial behaviour. Moreover, Thompson (2009) viewed entrepreneurial intention as a person's consciously formed plan and expectation that they will launch a business in the future.

Entrepreneurs are essential for seizing opportunities and generating employment opportunities, and it is important for entrepreneurial research to take into account their cognitive minds (Sesen, 2013). Identifying and seizing opportunities is the act of being an entrepreneur, and thus entrepreneurial intention deserves attention as it is intended to seek opportunities (Krueger et al., 2000). Entrepreneurial intention is a well-established foundational idea regularly employed as a dependent variable in entrepreneurship studies (Bird, 1988; Krueger et al., 2000). It is regarded as the initial strategic blueprint of new organisations and a significant pillar of the development of new ventures (Bird, 1988). The stronger the attitude towards entrepreneurship, the higher would be the entrepreneurial intention (Lüthje & Franke, 2003). However, if a person is strongly committed to their purpose or if they have a well-formed target intent, then it is sufficient for the action to occur (Adam & Fayolle, 2015).

The assessment of any intention, whether it is entrepreneurial or not, is based on behavioural and individual characteristics. A number of factors are addressed in the literature on students' entrepreneurial intentions, including their personality characteristics, attitudes, self-efficacy, and perceptions of support and barriers. A person's perceived feasibility and desirability as an entrepreneur is what motivates them, according to Shapero and Sokol (1982). Bird (1988) proposes the individualistic dimension and the environmental dimension as two factors that contribute to entrepreneurial intention. Besides, Lüthje and Franke (2003) focused on a range of individual and environmental factors as determinants of entrepreneurial intention among students. In addition, Turker and Selcuk (2009) examined external factors that affect students' start-up intentions. Furthermore, Kolvereid and Isaksen (2006) found that an individual's beliefs regarding entrepreneurship as a career choice are strongly influenced by their attitude towards business. Moreover, the interaction between attitudes and subjective norms is an important factor in determining an individual's entrepreneurial intention, which is ultimately determined by the decision to start a

business. Additionally, socioeconomic and demographic factors such as gender, family background, family income, and education level were found to be moderating and mediating variables in studies of entrepreneurial intention (Shinnar et al., 2012; Wang & Wong, 2004). Moreover, stream of study (Manuere et al., 2013), entrepreneurial education and course learning (Koe, 2016), entrepreneurial support activities conducted on campus, and institutional support (Coduras et al., 2008) were also found to influence entrepreneurial intention among the students. Personality characteristics, individual perceptions of new business opportunities, and contextual factors were recognised as predictors of entrepreneurial intention in many studies. Karimi et al. (2015) found that personality traits and contextual factors consisting of perceived support and barriers impact attitudes and self-efficacy, which influence entrepreneurial intentions. In addition, they also found a direct link between perceived barriers and entrepreneurial intentions.

The review of the literature suggests that it is typical to examine entrepreneurial intention while conducting studies on entrepreneurship. Kerala is renowned for having high levels of education and human development, but due to the lack of employment possibilities in both the governmental and private sectors, the state has been going through economic problems and outmigration. Research on entrepreneurial intention can aid in predicting potential entrepreneurs who will subsequently launch new ventures and add jobs to boost the state's economy. Additionally, understanding the level of entrepreneurial intention among students in higher education may make it simpler to locate individuals who are driven and interested in establishing their own business in the future. Moreover, academicians can modify their curricula to suit the needs and interests of their students by recognising the elements that impact entrepreneurial intention among students in higher education.

2.3 Psychological Characteristics

Psychological characteristics are described as an individual’s thoughts, feelings, and behaviour that are influenced by a variety of cognitive, emotional, and social aspects. In the context of the present study, entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation are considered psychological characteristics due to their significant effects on individuals. An entrepreneurial attitude is an individual's evaluation of business opportunities; self-efficacy is their belief in their

capabilities; and motivation is the internal process that motivates them to achieve entrepreneurial goals. These characteristics are psychological in nature since they display how cognitive functions, emotional states, and social factors interact to determine the way an individual perceives the world, feels about themselves, and engages in different activities. In the subsequent section, the literature relating to the relationship between these psychological characteristics and entrepreneurial intention are discussed.

2.3.1 Entrepreneurial Attitude

Behavioural attitude is the most important element of the Theory of Planned Behaviour, as it is the individual character that results from a widespread behavioural belief (Mokhtar et al., 2016). Attitude is a person's perceptions and ideas about their desire to engage in a behaviour, preceded by basic beliefs and assessments. Ajzen (1991) describes an individual's attitude towards a behaviour as the degree to which he or she has a positive or negative assessment of the behaviour. He argues that intention is a component of cognition, and attitude is a cognitive component that influences intention. An individual's entrepreneurial behaviour is motivated by their intentions and subsequent actions if they have an entrepreneurial attitude, which is a positive cognitive force (Anwar et al., 2021). An individual's entrepreneurial attitude can be supportive of or hostile to starting a new firm. Entrepreneurial activity is a deliberate behaviour that expresses an aim and is frequently impacted by attitudes (Çolakoğlu & Gözükara, 2016). Students' ambitions for entrepreneurship, as well as their entrepreneurial behaviour, are shaped by their entrepreneurial mindset. When this mindset is sufficiently established, the students decide to launch their own businesses. This mindset gives rise to the desire to start a new company. As a result, attitude affects intentions, which in turn affect subsequent business-related activities. Attitude towards behaviour is a strong antecedent of intention, which has an impact on future behaviours and is essential for predicting future entrepreneurs. Lüthje and Franke (2003) found attitude towards business to be the strongest predictor of entrepreneurial intention. An individual's positive perception of their position as a business owner determines their attitude towards entrepreneurship. Numerous studies have examined students' attitudes towards business and entrepreneurial intentions in various contexts across the globe. Entrepreneurship-friendly attitudes have a

favourable impact on one's propensity to pursue it. The likelihood that a student will manage their own business independently after graduation is higher if they have an entrepreneurial attitude. Empirical studies have proven that attitudes towards entrepreneurship have a statistically considerable impact on plans to start a business (Anjum et al., 2020; Anwar et al., 2021; Krueger et al., 2000; Law & Breznik, 2017; Naushad, 2018; Zhuang et al., 2022). Additionally, many other researchers also reported similar findings. Goel et al. (2006), in a cross-cultural comparison study between Chinese and Indian students, found that participants from regions where entrepreneurship is prevalent and those with entrepreneurial ancestry had a strong and supportive attitude towards entrepreneurship. Future entrepreneurial activity is influenced by one's attitude towards entrepreneurs and the business world. The study also found that a region's entrepreneurial development and family occupational history have an impact on entrepreneurial attitudes.

The present study aims to build on this well-established relationship by examining and testing hypotheses in the particular context of Kerala among higher education students. The overwhelming consensus from multiple studies highlights attitude as the most influential factor in predicting intention (Arroyo-López et al., 2021; Biswas & Verma, 2021; Ferreira et al., 2012; Kisubi, 2021; Shook & Bratianu, 2010; Soomro & Shah, 2015). The present study seeks to offer contextualised understandings of the interaction between attitude and intention within a distinctive cultural and educational context. The study also attempts to investigate any contextual changes that could arise and contribute to a greater understanding of the universal application of attitude-intention models. Based on this, the following hypothesis was set:

Entrepreneurial attitude has a positive, direct, and significant effect on entrepreneurial intentions.

2.3.2 Entrepreneurial Self-Efficacy

Self-efficacy is an individual's belief in their own ability to achieve a goal (Bandura, 1977b). It is confidence in one's ability to use resources and competencies to accomplish targets. Believing in one's own abilities and skills to complete tasks and conquering challenges that arise along the way are key components of self-efficacy. Self-efficacy is a crucial behavioural antecedent since it affects a person's attitudes

and actions with regard to their professional growth and development. People often seek professions in which they feel most competent and avoid those in which they feel less qualified or able to compete. People with greater degrees of self-efficacy are more inclined to take chances and behave proactively due to their more ambitious goals, higher expectations for success, and a stronger desire to find solutions to issues (Naktiyok et al., 2009). They put forth more effort and are more successful in their careers.

Entrepreneurial self-efficacy is the strength of a person's belief in their abilities to be an entrepreneur (Boyd & Vozikis, 1994). It is a crucial requirement for aspiring entrepreneurs. An entrepreneur is expected to be strong in terms of entrepreneurial self-efficacy since it is believed that entrepreneurship requires a greater degree of self-efficacy or a sense of self-confidence when carrying out business plans or making judgements (Anwar et al., 2021). Individuals determine whether starting a business is viable based on their confidence in their capacity to organise and execute an entrepreneurial activity. Boyd & Vozikis (1994) noted that self-efficacy has an impact on a person's ability to start a business in the future as well as how they set their entrepreneurial objectives. Students with higher levels of entrepreneurial self-efficacy will be better able to make use of their innate entrepreneurial traits, develop their potential as entrepreneurs, and ignite their entrepreneurial confidence and passion (Liu et al., 2019). Kickul and D'Intino (2005) assert that incorporating the concept of self-efficacy might improve a range of business models. The authors contend that entrepreneurial self-efficacy can help people better comprehend entrepreneurial goals and the environments in which they are implemented.

People with higher self-efficacy have stronger desires, determination, and perseverance, while those with low self-efficacy have difficulty recognising opportunities and understanding positive results. Naz et al. (2020) demonstrated that among college students, the prediction of entrepreneurial intention is influenced by entrepreneurial self-efficacy, and students who have a high level of self-efficacy are highly confident in their ability to start a new business. Previous studies have shown that self-efficacy is a crucial component in decisions to undertake entrepreneurial activity, and it has been proven that higher levels of self-efficacy result in greater entrepreneurial intentions (Anwar et al., 2021; Biswas & Verma, 2021; Boyd

&Vozikis, 1994; Indarti & Krinstiansen, 2003; Kisubi, 2021; Kristiansen & Indarti, 2004; Naushad & Syed, 2018; Zhao et al., 2005). These findings provide support for the hypothesis that:

Entrepreneurial self-efficacy has a positive, direct, and significant effect on entrepreneurial intentions.

2.3.3 Entrepreneurial Motivation

Motivation is the act of inspiring an individual's course of action to bring about a desired outcome and is acknowledged as being necessary for the development of entrepreneurial behaviour. It is moulded by ideas and perceptions that cause behaviour. Arousal generates motivations, which in turn trigger behavioural processes to meet the motives. Human activity is fueled by motivation, which guides conduct towards a certain objective. Entrepreneurial motivation is an important component of entrepreneurship because it channels the inner drive to launch a real business and connects intention with action (Malebana, 2014). Entrepreneurial motivation has been interpreted from a variety of perspectives, including the drive to start a business, the spark that transforms entrepreneurial cognition and intentions into actual actions (Carsrud & Brännback, 2011), and the intention to realise an enterprise's goals and vision. Every individual's motive for considering entrepreneurship is unique and may change over time. Maslow's need hierarchy theory states that satisfying a lower-level desire causes higher-level motives to become active, making motivations personal and contextual. Moreover, studies contend that an individual's intentions are significantly influenced by their entrepreneurial motive (Carsrud & Brännback, 2011; Schlaegel & Koenig, 2014). Individuals' decisions, persistent efforts, and ultimately their intention for entrepreneurial action are all influenced by their entrepreneurial drive. Hence, it is important to consider entrepreneurial motivation factors for the study.

Previous studies have extensively examined the diverse factors contributing to entrepreneurial motivation, exploring the underlying mechanisms of influence from the perspectives of individual personality traits and external environmental support factors. Entrepreneurial motivation is a behavioural characteristic that stimulates an individual’s ambition to start an entrepreneurial venture, influenced by self-efficacy (Boyd & Vozikis, 1994), aspirations, and personality traits (Shane et al., 2003), as well

as environmental support factors like the state of the economy and government regulations. In a study conducted by Yoon (2012), it was discovered that a number of factors have a favourable influence on college students' motivations towards entrepreneurship. These factors include knowledge of entrepreneurship, the drive for self-actualization, interpersonal connections, and societal acceptance. Ismail (2015) studied the factors that motivate newly enrolled university students in the United Arab Emirates to consider starting a business. It was found that male respondents were driven by a luxurious and comfortable lifestyle, while female respondents were driven by independence and freedom. The study concluded that creating a supportive entrepreneurial environment and fostering good entrepreneurial attitudes and intentions are essential for motivating students to undertake entrepreneurial activities. Rosa et al. (2006) examined the motivations of entrepreneurs in developing nations using qualitative case studies from Uganda and Sri Lanka. The results showed that emerging nations have greater rates of entrepreneurial intention, indicating that people are more driven to start businesses and are regarded as necessity-driven entrepreneurs.

Studies have identified the common motives behind pursuing entrepreneurship as push and pull factors. Push factors force an individual into a situation, while pull factors draw individuals' interest in it. The drivers of business start-ups depend on the circumstances and socio-economic conditions prevalent at the time. Opportunity-motivated entrepreneurs have higher ambitions and expectations from their ventures, while necessity-motivated entrepreneurs have lower ambitions and expectations. According to Hessels et al. (2008), entrepreneurship is driven by need in emerging and underdeveloped countries, but in wealthy economies, push factors including prestige, autonomy, challenge, and recognition are the main motivators. This implies that the viability of an entrepreneurial venture depends on both long-term and short-term economic conditions. Increased entrepreneurial motivation results in increased intention, showing a positive association between entrepreneurial motivation and entrepreneurial intention (Tentama, 2018). Jermsittiparsert et al. (2020) found that engineering students' entrepreneurial intentions are highly influenced by their entrepreneurial motivations, which consist of the need for achievement, independence, and economic motivations. A study conducted by Al-Jubari (2019) highlights that the fulfilment of basic psychological needs, including autonomy,

competence, and relatedness, positively influences entrepreneurial intention through attitudinal factors such as attitude toward entrepreneurship, subjective norms, and perceived behavioural control. This implies that strong entrepreneurial motivation plays a pivotal role in fostering a positive influence on entrepreneurial intention.

While numerous studies have identified multiple factors that contribute to entrepreneurial motivation, only a limited number of studies have explored the connection between entrepreneurial motivation and entrepreneurial intention. Therefore, the present study aims to fill this gap by examining the link between motivation and intention within the context of Kerala. Based on the above findings and the gap identified, the following hypothesis was formulated to explore the connection between entrepreneurial motivation and intention:

Entrepreneurial motivation has a positive, direct, and significant effect on entrepreneurial intention.

2.4 Personality Traits

The personality traits characterise a person's inborn distinguishing characteristics, which include actions, feelings, thoughts, and emotions that shape how an individual reacts and behaves. (McCrae et al., 2000). Personality traits are behavioural patterns that people exhibit throughout their lives (Çolakoğlu & Gözükara, 2016) and can influence an individual's decision to pursue entrepreneurial activities. Studies on successful entrepreneurs have revealed that entrepreneurs are driven by personality traits that differ from those of non-entrepreneurs (Davidsson, 1995; Mokhtar et al., 2016). Entrepreneurial literature has stressed a number of personality traits that are unique to entrepreneurs, such as internal locus of control, need for achievement, propensity for taking risks, innovativeness, self-confidence, proactiveness, tolerance for uncertainty, etc., and this has led to the conclusion that these traits distinguish entrepreneurs from non-entrepreneurs. In a study conducted among business students in India, Anwar and Saleem (2019) revealed that entrepreneurially inclined students tend to be more innovative, risk-takers, achievement-driven, and ambiguity-tolerant. Personality qualities like a high need for achievement, risk-taking propensity, and an inner locus of control persuade people to act innovatively and practise entrepreneurial activities. Moreover, innovation and risk-taking propensity have been identified as

crucial factors for individuals aspiring to become entrepreneurs (Koloba, 2014). Besides, students with enterprising goals are more inventive, have a higher need for accomplishment, and have a prominent inner locus of control (Çolakoğlu & Gözükara, 2016).

In order to foster an entrepreneurial culture, it is essential to comprehend the psychological traits of entrepreneurs. Many research studies have proved that people ought to pursue careers that match their personalities. Additionally, it is worth noting that an individual's entrepreneurial intention can be determined by his or her attitude based on their psychological characteristics (Yasa et al., 2018). After reviewing several empirical studies that examined the connection between personality traits and entrepreneurial intention, the three most prominent personality factors— risk-taking propensity, need for achievement and innovativeness—were selected for the present study. The major literature assessed with regard to the selected personality traits is summarised in Table 2.1 below:

Table 2.1

Major Literature Reviewed on Personality Traits Selected for the Study

Personality Traits	Empirical Studies
Risk Taking Propensity	(Ahmed et al., 2021; Anwar & Saleem, 2019; Anwar et al., 2021; Asmara et al., 2016; Bezzina, 2010; Biswas & Verma, 2021; Colman et al., 2019; Dinis et al., 2013; Herdjiono et al., 2017; Koe, 2016; Koh, 1996; Kumar et al., 2021; Manik & Kusuma, 2021; Munir et al., 2019; Naushad, 2018; Naushad & Syed, 2018; Özarallı & Rivenburgh, 2016; Popescu et al., 2016; Sarmin & Ashrafuzzaman, 2017; Shahzad et al., 2021; Sun et al., 2020; Yurtkoru et al., 2014; Zhuang et al., 2022)
Need for Achievement	(Anwar & Saleem, 2019; Asmara et al., 2016; Bezzina, 2010; Biswas & Verma, 2021; Çolakoğlu & Gözükara, 2016; Dinis et al., 2013; Fauzia & Agustina, 2021; Indarti & Krinstiansen, 2003; Kristiansen & Indarti, 2004**;** Mahmood et al., 2020; Mokhtar et al., 2016; Nabil, 2021; Naushad, 2018; Naushad & Syed, 2018; Popescu et al., 2016; Shahneaz et al., 2020; Sun et al., 2020; Voda & Florea, 2019; Yasa et al., 2018; Zhuang et al., 2022)

Personality Traits	Empirical Studies
Innovativeness	(Ahmed et al., 2021; Anjum et al., 2020; Anwar & Saleem, 2019; Anwar et al., 2021; Arroyo-López et al., 2021; Bezzina, 2010; Biswas & Verma, 2021; Çolakoğlu & Gözükara, 2016; Colman et al., 2019; Dinis et al., 2013; Koe, 2016; Koh, 1996; Law and Breznik, 2017; Mahmood et al., 2020; Manik & Kusuma, 2021; Özarallı & Rivenburgh, 2016; Shahzad et al., 2021; Soomro & Shah, 2015; Soomro et al., 2021; Wathanakom et al., 2020; Zhuang et al., 2022)

2.4.1 Need for Achievement and Entrepreneurial Intention

McClelland (1961) made the initial argument for the need for achievement. It implies that those who have a strong drive for success are more inclined to start their own businesses because of their need for achievement. Additionally, those who have greater expectations for success, value individual accountability, prefer to handle issues on their own, enjoy taking reasonable risks, and are highly interested in the results of their actions. Further, McClelland (1961) argued that the need for achievement has a significant psychological impact on entrepreneurial behaviour. People are more likely to pursue entrepreneurial careers due to their need for achievement. High achievers struggle to be satisfied with their performance and strive to improve. Studies have shown that those with a strong desire for accomplishment are more likely to become entrepreneurs, as they put a lot of effort into their job and are competitive, ambitious, and driven to succeed (McClelland, 1961). It could be stated that, among the traits mentioned in the available literature, the need for achievement has the strongest link with entrepreneurship, taking into account a large number of comparative studies comparing entrepreneurs and non-entrepreneurs (Littunen, 2000).

Persons with a strong desire to achieve are those who aspire to be solution-finders and objective planners, demonstrate high execution in challenging assignments, and are innovatively artistic in their quest for better performance (Anwar & Saleem, 2019). Mokhtar et al. (2016) suggest that the need for achievement is a key indicator of

entrepreneurial encouragement, and people with a high need for achievement are more likely to be entrepreneurs due to their ability to perform tasks and activities that require skills, effort, and risk. The need for achievement, as emphasised by Nabil and Zhang (2020), serves as a prominent personality attribute that has a significant impact on people's decision to start entrepreneurial ventures, as it not only drives them to pursue greater levels of achievement and personal satisfaction but also provides them with a strong inclination to actively seek out and embrace challenging opportunities that align with their unique personalities, thereby boosting their self-assurance and confidence in their abilities to attain entrepreneurial success and thrive in a dynamic business landscape.

The need for achievement is found to be a strong predictor of entrepreneurial intention in many studies. Çolakoğlu and Gözükara (2016) found that students with entrepreneurial intentions have a higher need for achievement. Voda and Florea (2019) asserted that the need for achievement influenced entrepreneurial intention and had the strength to predict entrepreneurial intention. Similarly, many studies found a positive, direct, and significant effect of the need for achievement on entrepreneurial intention (Asmara et al., 2016; Dinis et al., 2013; Popescu et al., 2016; Shahneaz et al., 2020). In contrast to this, Kristiansen and Indarti (2004) revealed that the need for achievement does not significantly influence the determination of entrepreneurial intention among the sample of university students from Indonesia and Norway.

The need for achievement depends on cultural influences and might differ across diverse cultures and nations. Culture can either enhance or hinder a country's entrepreneurial potential, depending on the degree of innovation, freedom, risk-taking, and other motivational factors associated with it (Voda & Florea, 2019). Despite the fact that many studies have offered evidence to support the idea that the need for achievement is a strong predictor of students' entrepreneurial intent, there is still disagreement in the literature about the extent to which the need for achievement construct can contribute to students' entrepreneurial intention. To fill this gap, the present study aims to determine whether the need for achievement among higher education students in Kerala contributes to their entrepreneurial intention.

Previous empirical studies (Anwar & Saleem, 2019; Bezzina, 2010; Nabil, 2021; Yasa et al., 2018) reported a significant positive influence of the need for achievement

characteristics on entrepreneurial intention. Similarly, Biswas and Verma (2021) revealed in their study that the need for achievement is the most important precursor of entrepreneurial intention. Considering these findings, the following hypothesis was developed:

The need for achievement has a positive, direct, and significant effect on entrepreneurial intention.

2.4.2 Risk-Taking Propensity and Entrepreneurial Intention

Risk-taking propensity is the tendency to be courageous and proactive in seeking chances and preferring high-risk ventures with extremely high rewards over relatively safe projects with lower and more predictable returns (Spicka, 2020). Risk-taking propensity describes a person's innate propensity or predisposition to take risks while making decisions and taking actions. The risks associated with starting a new business could hinder a person's desire to become an entrepreneur. Jackson (1977) described risk-taking propensity as the tendency to make risky judgements or take uncertain actions, regardless of the outcome.

Entrepreneurship necessitates taking risks since launching and managing a new business involves uncertainty and the possibility of failure. Entrepreneurs who seek success and are inspired to enhance their business activities must be more flexible, adaptable, risk-takers, and growth-oriented. Entrepreneurial endeavours are more likely to be viewed as challenging and exciting prospects by those who have a stronger propensity for taking risks. Individuals with a high risk-taking propensity find themselves more comfortable with ambiguity and uncertainty and are willing to take calculated risks. The propensity to take risks is an essential personality attribute that influences decision-making and the selection of projects in the realm of entrepreneurship (Shahzad et al., 2021). For entrepreneurs, having the ability to take risks helps them evaluate the risks involved in their business operations accurately, thereby reducing mistakes and improving their strategies (Butt et al., 2015). Additionally, it gives entrepreneurs the confidence to choose open business models, which encourage collaboration, innovation, and the creation of value. Studies have noted that individuals with risk aversion are less likely to become self-employed (Caliendo et al., 2009; Zhao,et al., 2010).

Risk-taking activities boost confidence and can have an impact on the way decisions are made, promoting creativity and high-risk decisions that can aid in the success of the business. This reflects the reputation of an entrepreneur, which raises the likelihood of success. Risk-taking activities are an indicator of an entrepreneur's high reputation, leading to the likelihood of success (Shahzad et al., 2021). Herdjiono et al. (2017) stated that an entrepreneur would never be able to fully realise their skills, talents, and spirit of entrepreneurship if he is hesitant to take risks.

Research has consistently suggested that individuals with a higher risk-taking propensity are more likely to exhibit entrepreneurial intentions. Risk-taking individuals are more likely to have entrepreneurial intentions due to their comfort with uncertainty, optimism, and willingness to take calculated risks. The tendency to take risks is also crucial in determining one's entrepreneurial intentions since those who do so will come across as confident while addressing the different challenges that stand in the way of their goal of starting their own business (Fauzia & Agustina, 2021).

Numerous empirical studies support the notion that risk-taking propensity is an essential personality trait to be considered for the formation of entrepreneurial intention. Students who are entrepreneurially inclined possess a higher risk-taking propensity (Koh, 1996). Risk-taking propensity was found to have a significant contribution to determining entrepreneurial intention (Anwar & Saleem, 2019; Anwar et al., 2021; Bezzina, 2010; Colman et al., 2019; Özarallı & Rivenburgh, 2016; Shahzad et al., 2021; Sun et al., 2020; Yurtkoru et al., 2014). While Naushad and Syed (2018) claimed that the risk-taking propensity of the undergraduate business students of public universities in Saudi Arabia was not necessarily sufficient to develop entrepreneurial intention, a similar result was also found by Koe (2016) in a study conducted among undergraduate students in Malaysia. Meanwhile, Dinis et al. (2013) found that the more people are averse to risk, the lower their entrepreneurial intentions will be. Hence, in the present study, risk-taking propensity was considered as an essential entrepreneurial personality trait and, therefore, was investigated for its effect on entrepreneurial intention among the students of HEIs in Kerala.

Previous empirical studies reveal that the higher the propensity to take risks, the higher the intention to engage in entrepreneurial ventures (Asmara et al., 2016; Biswas &

Verma, 2021; Herdjiono et al., 2017; Koh, 1996; Manik & Kusuma, 2021; Zhuang et al., 2022). These findings provide support for the hypothesis that:

Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial intention.

2.4.3 Innovativeness and Entrepreneurial Intention

Innovativeness is the capacity to offer novel ideas and embrace creative strategies to enhance performance. Entrepreneurial leaders who are inventive see possibilities to launch novel products and services and propose unique and useful concepts (Chen, 2007). Innovation is the process of making novel ideas possible, resulting in creative thoughts and inventive happenings. It involves both thoughts and expertise and is essential for organisations to survive and generate new demand, leading to wealth (Schumpeter, 1934). Innovativeness is the capacity to create novel ideas, concepts, products, or methods that result in positive change or offer unique solutions to prevailing issues. It involves a creative attitude, the ability to think outside the box, and the openness to challenge conventional thinking. In this way, entrepreneurs are associated with innovation and are regarded as inventive. According to Batchelor and Burch (2012), entrepreneurship is particularly motivating for individuals with creativity, as it offers them an appealing avenue to achieve success. Similarly, Thomas and Mueller (2000) claimed that entrepreneurs exhibit higher levels of creativity, imagination, and innovation compared to non-entrepreneurs, resulting in a correlation between high innovativeness and increased entrepreneurial intention.

Entrepreneurs use innovative techniques to transform their tasks and deliver their output in terms of innovativeness, versatility, and effectiveness, leading to enhanced entrepreneurial career choices (Shahzad et al., 2021). Innovativeness is crucial for entrepreneurs to develop and market new goods, services, or business models since entrepreneurship involves identifying and seizing opportunities to add value and address untapped requirements. Further, entrepreneurs with innovativeness are more likely to develop disruptive technologies, drive innovation, adapt to changing environments, and achieve long-term success. Hence, cultivating and promoting innovativeness among aspiring entrepreneurs can lead to a thriving entrepreneurial ecosystem, driving economic growth, job creation, and societal innovation.

The predisposition to keep thinking of novel methods to carry out tasks inspires individuals to explore entrepreneurship (Koe, 2016). The existing literature consists of numerous studies that highlight the connection between innovativeness and entrepreneurial intention (Anwar et al., 2021; Bezzina, 2010; Biswas & Verma, 2021; Dinis et al., 2013; Özarallı & Rivenburgh, 2016). While several studies have confirmed that innovativeness fosters entrepreneurial intention, there are also studies suggesting that innovativeness does not significantly contribute to entrepreneurial intention (Arroyo-López et al., 2021; Colman et al., 2019). Moreover, it is important to note that cultural variations and contextual factors can also influence this relationship. Therefore, the present study examines the relationship between innovativeness and entrepreneurial intention among the students of higher education institutions (HEIs) in Kerala.

Several studies have demonstrated a positive correlation between innovativeness and entrepreneurial intention (Çolakoğlu & Gözükara, 2016; Shahzad et al., 2021; Wathanakom et al., 2020; Zhuang et al., 2022). Individuals with higher degrees of innovativeness are more likely to be entrepreneurs, as their inclination towards generating novel ideas and recognising opportunities corresponds to their spirit of entrepreneurship (Koe, 2016). Based on these findings, the following hypothesis was formulated:

Innovativeness has a positive, direct, and significant effect on entrepreneurial intention.

2.4.4 Need for Achievement and Entrepreneurial Attitude

Individuals with a greater desire for achievement often have a positive attitude towards commercial ventures due to their passion for personal achievements, challenging aims, and success. They view business opportunities as a means of accomplishing their objectives and satisfying their need for success. McClelland (1961) asserted that a person who has a strong desire for achievement is likely to have a positive attitude towards entrepreneurship. Naushad (2018) confirms that a high need for achievement might translate into the perceived ease of starting a business.

High achievers are more likely to take chances, grasp opportunities, and persist in the midst of challenges, resulting in a positive outlook on business and entrepreneurial

endeavours. Asmara et al. (2016) stated that a person's entrepreneurial attitudes will increase when they have a high demand for achievement, which in turn will have an impact on their entrepreneurial intention. Mahmood et al. (2020) confirmed that individuals who were strongly driven to succeed would attempt to excel at the tasks by using their skills to provide the greatest work performance.

Mokhtar et al. (2016) asserted that attitudes have a significant impact on the link between the need for achievement and entrepreneurial intention, so efforts should be made to transform graduates' attitudes towards entrepreneurship to better prepare them for the volatility of the present economic climate. However, these relationships may vary across individuals and contexts, as factors such as culture and social norms, personal experiences, and external environmental factors can either strengthen or lessen the impact of the need for achievement and can shape an individual's entrepreneurial attitude and intention. Further, the studies emphasising the mediating role of entrepreneurial attitude in the relationship between the need for achievement and entrepreneurial intention are limited, especially in the Kerala context. Therefore, there arises the need to examine the influence of the need for achievement on the formation of entrepreneurial intention among the students of HEIs in Kerala.

Numerous empirical studies have consistently demonstrated that the need for achievement construct is a robust predictor of entrepreneurial attitude (Asmara et al., 2016; Mahmood et al., 2020; Naushad, 2018; Soomro & Shah, 2015; Soomro et al., 2021). Further, a higher level of entrepreneurial attitude has been found to correspond with a higher level of entrepreneurial intention (Anwar et al., 2021; Law & Breznik, 2017; Yasa et al., 2018; Zhuang et al., 2022). These findings suggest that entrepreneurial attitude can potentially act as a mediator between the need for achievement and entrepreneurial intention (Mokhtar et al., 2016; Naushad, 2018), whereby the influence of the need for achievement on entrepreneurial intention is channelled through the intermediate variable entrepreneurial attitude. Based on this, the following hypotheses was formulated:

The need for achievement has a positive, direct, and significant effect on entrepreneurial attitudes.

Entrepreneurial attitude plays a mediating role in the relationship between the need for achievement and entrepreneurial intention.

2.4.5 Risk-Taking Propensity and Entrepreneurial Attitude

Risk-taking propensity is a capacity-building trait that fosters a positive outlook on business. (Zhao et al., 2005). People with a tendency to take risks may consider starting their own business as a career. Lüthje and Franke (2003) recognised the importance of striking a balance between taking risks and exercising prudence and due care. Entrepreneurs must be able to weigh the benefits and risks of several options to make decisions that will increase their chances of long-term success. The relationship between entrepreneurial attitude and risk-taking propensity is significant, as individuals with a positive attitude are more likely to take risks and view risk as an opportunity for growth and success. Munir et al. (2019) asserted that people who have an entrepreneurial attitude are more inclined to take risks and act in ways that would help them achieve their business objectives.

Risk-taking propensity may influence attitude, and attitude in turn plays a significant role in shaping individuals' entrepreneurial intentions. A favourable entrepreneurial attitude results in a positive perception of the potential benefits, rewards, and personal fulfilment associated with starting and managing a business. It cultivates excitement, drive, and devotion to entrepreneurship. Studies have consistently reported a positive link between attitude towards business and risk-taking propensity (Anwar et al., 2021). People who are more likely to take risks often possess an attitude that accepts uncertainty and considers barriers as possibilities for advancement and growth. This approach fits in effectively with the basic concepts of entrepreneurship, which involve taking measured risks in order to develop novel ideas and enterprises. Cromie (2000) discovered that individuals who are willing to take risks, come up with creative strategies to access new markets or discover new business prospects often have a positive behavioural attitude about beginning their own firm.

People's attitudes towards entrepreneurship grow stronger and become more positive when they take risks. Moreover, risk-taking propensity can lead to increased self-confidence (Naushad & Syed, 2018), which fuels a more positive attitude towards entrepreneurship as individuals consider themselves capable of handling risks and challenges. Zhao et al. (2005) stated that risk-taking propensity increases a person's likelihood of success in a challenging situation, resulting in confidence and less worry, which in turn helps them view entrepreneurship as more favourable and feel more

capable of succeeding. Asmara et al. (2016) asserted that risk-takers will gravitate towards careers in entrepreneurship since it fosters a positive attitude towards running and growing a business.

A higher propensity to take risks can lead to a better attitude towards entrepreneurship, which in turn leads to the formation of entrepreneurial intentions. In a study conducted among university students in India, Anwar et al. (2021) discovered that the ability to take calculated risks not only enhances entrepreneurial intention by facilitating the search for new business opportunities but also acts as an antecedent to entrepreneurial attitude. Furthermore, the findings indicate that risk-taking propensity has a direct effect on entrepreneurial attitude and significantly influences entrepreneurial intention, with entrepreneurial attitude mediating the relationship between risk-taking propensity and entrepreneurial intention.

The association between risk-taking propensity and entrepreneurial intention and attitude has been the subject of studies. But studies examining the mediating role of entrepreneurial attitude in the relationship between risk-taking propensity and students' entrepreneurial intention are limited, especially in the Kerala context among higher education students. In order to fill this gap, the present study investigates the mediating effect of entrepreneurial attitude on the relationship between risk-taking propensity and entrepreneurial intention.

Empirical evidence suggests that risk-taking propensity has a favourable effect on attitudes towards entrepreneurship (Ahmed et al., 2021; Naushad, 2018; Zhuang et al., 2022). Similarly, Asmara et al. (2016) stated that individuals with a higher risk-taking propensity tend to exhibit a more favourable attitude towards entrepreneurship. Further, a higher level of entrepreneurial attitude has been found to correspond with a higher level of entrepreneurial intention (Arroyo-López et al., 2021; Law & Breznik, 2017; Shook & Bratianu, 2010; Soomro & Shah, 2015; Yasa et al., 2018; Zhuang et al., 2022). Munir et al. (2019) revealed that positive risk-taking propensity can play a significant role in shaping an entrepreneurial attitude in an emerging economy context, and having an entrepreneurial attitude, which is characterised by taking risks, can have a beneficial impact on one's intention to start a business by giving them self-assurance, motivation, and a sense of direction. These findings suggest that entrepreneurial attitude can potentially act as a mediator between risk-taking

propensity and entrepreneurial intention (Ahmed et al., 2021; Anwar et al., 2021; Naushad, 2018). Based on the above findings, the following hypotheses were formulated:

Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial attitude.

Entrepreneurial attitude plays a mediating role in the relationship between risk-taking propensity and entrepreneurial intention.

2.4.6 Innovativeness and Entrepreneurial Attitude

Innovation is a key driver of success and competitiveness in today's business and market, which includes the ability to develop novel ideas, explore new perspectives, and implement innovative solutions. It also includes the development of an entrepreneurial mindset and a positive attitude towards business. Innovativeness is a personality attribute that enables aspiring entrepreneurs to build the necessary attitudes and behavioural patterns to conquer barriers and pursue entrepreneurial success. It is a way of thinking that embraces experimentation, creativity, and ongoing advancement, enabling businesses to adapt to shifting market dynamics, exploit new possibilities, and distinguish themselves from rivals.

Innovativeness encourages people to develop an entrepreneurial attitude, which is characterised by a customer-centric approach, taking risks, solving problems, and ongoing learning. Cromie (2000) discovered that people who identify novel ways to penetrate new markets or explore new business prospects typically have a favourable entrepreneurial attitude. Innovativeness that fosters an entrepreneurial attitude encourages people to actively seek out business possibilities, launch their own ventures, and successfully confront the barriers of the entrepreneurial journey. Innovativeness ultimately serves as a catalyst, fostering the growth of an entrepreneurial attitude and igniting individuals' entrepreneurial intentions. Mueller and Thomas (2001) argue that innovativeness is a crucial aspect in identifying a prospective entrepreneur's attitude and intentions towards business. Additionally, Mahmood et al. (2020) claim that creativity, adaptability, and inventiveness all have a substantial impact on millennials' attitudes towards entrepreneurship.

It has been established that individuals who possess innovativeness tend to exhibit a positive and significant attitude towards entrepreneurship (Ahmed et al., 2021; Chen, 2007; Mahmood et al., 2020; Soomro & Shah, 2015). These findings highlight the influential role of students' innovativeness in shaping their entrepreneurial attitude. Concurrently, several studies have established a positive, direct, and significant relationship between entrepreneurial attitude and entrepreneurial intention (Anjum et al., 2020; Arroyo-López et al., 2021; Shook & Bratianu, 2010). Therefore, it can be inferred that entrepreneurial attitude, shaped by innovativeness, plays a crucial role in motivating individuals to actively pursue their entrepreneurial aspirations. In a study conducted by Ahmed et al. (2021) among MBA students in Pakistan, they discovered that attitude towards entrepreneurship mediates the link between innovativeness and the intention to start a business. In the context of students from HEIs in Kerala, studies investigating the intervening effect of entrepreneurial attitude in the relationship between innovativeness and entrepreneurial intention are relatively scarce. The dearth of research on this topic within the Kerala context indicates an opportunity to contribute to the existing literature and gain a deeper understanding of the mechanisms through which these factors interact and influence students' entrepreneurial intentions. By addressing this gap, future studies can contribute to a better understanding of the psychological attributes that drive individuals towards entrepreneurial activities and their implications in the specific context of Kerala.

Empirical studies have consistently demonstrated that individuals who possess innovative capacity have a strong sense of determination and excitement, which can lead to a better attitude towards entrepreneurship (Cromie, 2000; Manik & Kusuma, 2021; Soomro et al., 2021). Notably, entrepreneurial attitude has been identified as a significant component of entrepreneurial intention (Naushad, 2018; Biswas & Verma, 2021; Mokhtar et al., 2016), indicating its crucial role in shaping entrepreneurial behaviours. Building upon these findings, Law and Breznik (2017) conducted a study that revealed the intervening effect of entrepreneurial attitude in the relationship between innovativeness and entrepreneurial intention. A similar result was also found by Anwar et al. (2021).

Drawing from this valuable insight, the following hypothesis was formulated:

Innovativeness has a positive, direct, and significant effect on entrepreneurial attitude.

Entrepreneurial attitude plays a mediating role in the relationship between innovativeness and entrepreneurial intention.

2.5 Perceived Environmental Support Factors

2.5.1 Perceived Environmental Support and Entrepreneurial Intention

Perceived environmental support is the perception of the external environment's support available for entrepreneurship, which includes access to finance, resources, infrastructure, government policies, cultural attitudes, and support networks. Mohammed (2019) asserted that individuals who are more exposed to environmental support factors are more likely to become entrepreneurs. An individual's perception of the external environment, including social, cultural, economic, and institutional factors, corresponds to their assessment of what supports or hinders their entrepreneurial activities. Lüthje and Franke (2003) claimed that an individual's intentions to start a business can be positively influenced by a supportive environment that provides resources, networking opportunities, and access to education and training. People are more likely to embrace their aspirations to become entrepreneurs when they are part of a supportive environment with a culture that supports and rewards risk-taking, innovation, and business formation.

Studying entrepreneurship alone without acknowledging the environmental context lacks adequacy and comprehensiveness. As a result, it is critical to consider the environment when examining entrepreneurship since it plays a vital role in shaping entrepreneurial intentions. Moreover, Kristiansen and Indarti (2004) suggested the design of environmental elements in entrepreneurial intention models. Previous studies revealed that an individual's entrepreneurial intention is directly impacted by perceived environmental conditions (Lüthje & Franke, 2003). Turker and Selcuk (2009) assessed entrepreneurial intention as a function of perceived relational, structural, and educational support and found that students' perception of educational and structural support has an influence on their entrepreneurial intention, whereas their perception of support from family and friends has no bearing on their decision

to pursue an entrepreneurial career. A similar study conducted by Denanyoh et al. (2015) among polytechnic students in Ghana established that structural support, along with educational support and family support, has a significant impact on the students' entrepreneurial intentions. In a similar vein, Mohammed (2019) established that the content of education, relationship support from friends and family, and institutional support from governmental agencies all have a significant impact on graduating students' entrepreneurial intentions. Shen et al. (2017) also examined the impact of perceived supportive factors on college students' entrepreneurial intention and found that the perception of structural and interpersonal support is positively connected with entrepreneurial purpose, while the perception of support from universities was not shown to be significant.

Shane et al. (2003) stated that entrepreneurship is affected by a range of external environmental factors, such as prevailing economic conditions, social norms, governmental rules and regulations, etc. According to Lüthje and Franke (2003), government policies have a significant impact on how entrepreneurs perceive the support of their surroundings, which in turn shapes their intentions. Chew (2022), in a study conducted among Malaysian university students, revealed that normative institutions, which are made up of social norms and values, have a greater influence on students' entrepreneurial intentions than regulatory institutions, which consist of government policies intended to define entrepreneurial opportunities. The study posits that the regulatory, normative, and cognitive institutional components interact together rather than acting independently in the development of entrepreneurial intentions. Further, a meta-analysis study conducted by Schlaegel et al., (2015) to explore the factors that foster entrepreneurial intention, found that perceived educational support, relational support, and environmental support trigger entrepreneurial intention.

Based on the aforementioned findings, it can be concluded that entrepreneurial intention is strongly influenced by the perceptions of various forms of social, institutional, economic, and legal support elements. On the basis of this, and in line with the entrepreneurial support model put forward by Turker and Selcuk (2009), the present study divides these supportive elements into three separate groups. Consequently, the study examines the perceived environmental support factors

classified as perceived educational support, perceived relational support, and perceived structural support. The next part discusses the relationship between perceived environmental support factors and entrepreneurial intention.

2.5.1.1 Perceived Educational Support and Entrepreneurial Intention

Perceived educational support refers to the extent to which people believe they have access to training and educational opportunities that can help them get the abilities and information required to launch and run a business (Turker & Selcuk, 2009). The relationship between perceived educational support and entrepreneurial intention has drawn much academic attention, especially in the context of HEIs. Several studies examined the way HEI support, manifested through activities like seminars, workshops, and other initiatives, affects the tendency of students towards entrepreneurship. By offering comprehensive entrepreneurial education, institutions may encourage the exchange of creative ideas, important entrepreneurial skills, and a sufficient understanding of entrepreneurial processes (Gelaidan & Abdullateef, 2017).

HEIs provide students with networking opportunities, mentorship, and exposure to real-world business experiences through seminars and workshops, allowing them to learn about entrepreneurship and develop essential skills. Gelard and Saleh (2011) stated that entrepreneurship can be encouraged through the process of learning. Further, Turker and Selcuk (2009) reported a direct, positive, and significant relationship between perceived educational support and entrepreneurial intention. Lüthje and Franke (2003) also reported a similar result in a study conducted among engineering students at the Massachusetts Institute of Technology.

However, the findings regarding the relationship between the perception of educational support and students' entrepreneurial intentions have not shown consistent results. While some studies have reported a positive and significant correlation between perceived educational support and entrepreneurial intention (Bazan et al., 2020; Denanyoh et al., 2015; Gelaidan & Abdullateef, 2017; Gelard & Saleh, 2011; Malebana, 2014; Mohammed, 2019), there are also studies that have found no significant relationship between perception of educational support and entrepreneurial intention (Ambad & Damit, 2016; Oosterbeek et al., 2010; Shen et al., 2017; Yurtkoru, 2014). Additionally, a study conducted by Autio et al. (1997) revealed

a negative association between perceived educational support and students' entrepreneurial intentions. These inconsistent findings emphasise the importance of further investigating the relationship between perceived educational support and entrepreneurial intentions among the students of HEIs in Kerala.

Previous empirical studies revealed that the perception of support provided by educational institutions positively contributes to the formation of students' entrepreneurial intentions (Malebana, 2014; Phuong et al., 2020; Turker and Selcuk, 2009). Moreover, Gelard and Saleh (2011) stated that students' likelihood of selecting an entrepreneurial profession may rise if the institution provides adequate knowledge and motivation that supports the growth of innovative ideas and entrepreneurial abilities. Based on these findings and assumptions, the following hypothesis was tested:

Perceived educational support has a positive, direct, and significant effect on entrepreneurial intention.

2.5.1.2 Perceived Relational Support and Entrepreneurial Intention

Perceived relational support is an individual's subjective perception and opinion of the accessibility and efficacy of support from their relationships, particularly from family and friends. It can take the form of encouragement, understanding, empathy, advice, practical guidance, financial backing, or network access. Family members play a crucial role in the early phases of the growth of a business. As such, their importance should be highlighted in the context of entrepreneurship (Aldrich & Cliff, 2003). According to Gelaidan and Abdullateef (2017), having supportive parents is essential in following one's entrepreneurial aspirations since they provide economic, mental, physical, and emotional support. Relational support is essential for shaping an individual's confidence, motivation, and belief in their capacity to achieve their goals, ultimately impacting their entrepreneurial intentions and actions. Sociocultural practices, beliefs, and norms that encourage and legitimise entrepreneurship are essential for entrepreneurial intention and action. Without these elements, people could have a poor perception of entrepreneurship, which could have an adverse effect on entrepreneurial intention, its antecedents, and eventual behaviour (Malebana, 2015). Peer groups serve as the foundation for social interaction, and people frequently choose to launch a business as a result of the influence of their peers (Zafar

et al., 2012). Furthermore, people are more likely to take the initiative to launch a business when social networks happen to exist. Access to resources like knowledge, innovations, and market circumstances is made possible through social networks, which are essential for establishing enterprises and small businesses. Additionally, it has been proven that personal networks are crucial for people to get the most pertinent information for their businesses (O'Donnell et al., 2001). Those with larger support networks are encouraged to pursue their entrepreneurial goals and feel competent and inspired to take the necessary steps to start their own firm (Ambad & Damit, 2016).

Higher levels of perceived relational support are associated with stronger entrepreneurial intention, providing potential entrepreneurs with necessary resources, advice, and networking opportunities, as well as confidence, security, and belief. According to Denanyoh et al. (2015), family and friends' support is found to be a crucial factor in influencing entrepreneurial intent. Xu et al. (2020) stated that individuals who have considerable family support to establish a business can overcome challenges and achieve their goals. Shahzad et al. (2021) contended that peer influence and institutional and family support play a fundamental role in influencing entrepreneurial intention. Ambad and Damit (2016) concluded in their study that those with higher levels of perceived relational support are more likely to have a favourable attitude towards entrepreneurship and higher intentions to launch their own business.

Despite the existence of several studies demonstrating a positive, direct, and significant influence of perceived relational support on students' entrepreneurial intention (Denanyoh et al., 2015; Mohammed, 2019; Shahzad et al., 2021; Shen et al., 2017), it is important to recognise that different samples with diverse backgrounds might yield contradictory or inconclusive results. Turker and Selcuk (2009) found no significant relationship between perceived relational support and entrepreneurial intention in a sample of Turkish university students. Hence, there exists a research gap in understanding the unique link between perceived relational support and entrepreneurial intention in the context of higher education students in Kerala. Consequently, the current study examines this relationship within the unique setting of Kerala, providing insight into the dynamics and potential variations that are likely to emerge and contributing to a better understanding of how the perception of

relational support influences entrepreneurial intention within this specific regional setting.

Based on earlier studies (Ambad & Danit, 2016; Gelaidan & Abdullateef, 2017; Xu et al., 2020), perceived relationship support influences students' intentions to start a business. Correspondingly, Yurtkoru et al. (2014) asserted that support from family and friends plays a significant role in the creation of entrepreneurial intentions. On the basis of these observations and the gap in the research, the relationship between perceived relational support and entrepreneurial intention was investigated with the following hypothesis:

Perceived relational support has a positive, direct, and significant effect on entrepreneurial intention.

2.5.1.3 Perceived Structural Support and Entrepreneurial Intention

Perceived structural support is the individual's perception and assessment of the accessibility and efficacy of support provided by various structural elements in the business environment. It involves the individual's perception and evaluation of the support they believe they will receive from organisations such as banks, financial institutions, and state legislation. Lim et al. (2010) asserted that the general structure of the political, legal, and economic systems has an impact on an individual's entrepreneurial goals.

Individuals' perceptions of structural support affect their self-confidence, motivation, and willingness to engage in entrepreneurial activities, which in turn can positively influence their entrepreneurial intentions. Banks and financial institutions may support entrepreneurs by providing them with the capital they need to overcome economic hurdles and meet the monetary demands of starting and developing businesses. Formal networks like funding agencies, consulting agencies, and banks have unique responsibilities to play in fostering student entrepreneurial intentions (Gelard & Saleh, 2011). Furthermore, state laws and regulations foster an enabling environment by providing incentives, tax reductions, and favourable regulations to reduce bureaucratic barriers, expedite legal procedures, and enhance the ease of doing business. Lim et al. (2010) stated that an individual's entrepreneurial intention is influenced by a variety of environmental elements such as finance facilities,

governmental activities, and legislation. The accessibility of supporting structural components can provide prospective entrepreneurs with a sense of security, encouraging them to take calculated risks and explore entrepreneurial prospects. Moreover, a lack of infrastructure, professional services, and regulation may impede the development of entrepreneurship (Ximenes & Sato, 2018).

Studies have consistently demonstrated that the perception of higher levels of structural support is strongly associated with entrepreneurial intention (Gelard & Saleh, 2011; Shen et al., 2017). While certain studies revealed a positive and significant relationship between the perception of structural support and entrepreneurial intention (Denanyoh et al., 2015; Mohammed, 2019; Turker & Selcuk, 2009), there are conflicting findings suggesting that the perception of structural support does not contribute towards entrepreneurial intention (Ambad & Damit, 2016; Yurtkoru et al., 2014). The discrepancy in these findings can potentially be attributed to differences in geographical locations, cultural settings, and economies. A study conducted by Diaz-Casero et al. (2012) on a sample of university students from Portugal and Spain revealed that the relationship between structural support and entrepreneurial intention varied between students from Spain and Portugal, with students from Spain finding starting a business an easy process and students from Portugal finding it a complex one. Hence, it becomes evident that the impact of perceived structural support on entrepreneurial intention can vary across different contexts. This observation highlights the significance of examining how the perception of structural support among the students of higher education institutions in Kerala influences their intention to start a business. There is a lack of research examining the relationship between perceived structural support and students' entrepreneurial intentions in the context of Kerala. To fill this gap, the present study further investigates the link between students' perceptions of structural support and their intention to launch a business in the future. By exploring this relationship within Kerala's specific cultural, economic, and social landscape, this study aims to contribute to a deeper understanding of the dynamics that may shape the influence of perceived structural support on entrepreneurial intention in this particular context.

Previous empirical studies have proven that the perception of structural support positively and significantly influence entrepreneurial intention (Gelard & Saleh, 2011;

Denanyoh et al., 2015; Lim et al., 2010; Turker & Selcuk, 2009; Wardana et al., 2021; Ximenes & Sato, 2018). These results support the following hypothesis:

Perceived structural support has a positive, direct, and significant effect on entrepreneurial intention.

2.5.2 Perceived Environmental Support and Entrepreneurial Motivation

Entrepreneurship is the result of an individual's motivation for action, with external variables serving as one of its boosters (Shane et al., 2003). External resources might assist aspiring entrepreneurs by way of education, training, societal values and support, government policies, and access to funds. Similarly, Suzuki et al. (2002) argued that entrepreneurial motivation is the result of both environmental and personal factors and is impacted by the management of resources and abilities, economic conditions, the business environment, and State laws and regulations.

Studies have examined the link between students' perceptions of environmental support and entrepreneurial motivation. Yao et al. (2016) discovered that Chinese university students' entrepreneurial motivations were influenced by socioeconomic perspectives, the availability of social networks, business information, peer and family support, and finance. An incredibly strong relationship was found between entrepreneurial motivation and the perception of the business environment in a study conducted among Iranian MBA students by Fereidouni et al. (2010), where the business environment was found to be the key factor in determining entrepreneurial motivation. According to Shane et al. (2003), the motivation to engage in entrepreneurial activities depends on a variety of factors, including the legislative framework of the nation, the stages of business development, the accessibility of money in the economy and industry, and the condition of the world's economies. Similarly, Wu and Mao (2020) suggested that students' personal understanding and perception of external resources can influence their motivation to engage in entrepreneurial activities. In essence, one’s belief in the viability of entrepreneurship and in its capacity to improve their general well-being drives him to pursue entrepreneurship as a career.

Most of the available literature on environmental variables affecting students' entrepreneurship focused on five key areas: governmental efforts and laws, circumstances in society, education and training, and monetary and non-monetary support. The present study classifies the perception of these environmental variables into three categories, such as perceived educational support, perceived relational support, and perceived structural support, and aims to examine how these variables affect entrepreneurial motivations, taking into account individuals' self-perception.

Earlier studies (Fereidouni et al., 2020; Wu & Mao, 2020; Yao et al., 2016) reported a significant positive influence of perceived environmental support on entrepreneurial motivation. Likewise, a study conducted by Jermsittiparsert et al. (2020) proved that entrepreneurial motivation significantly contributes to entrepreneurial intention. Considering these findings, it could be conceivable to hypothesise that:

Perceived environmental support has a positive, direct, and significant effect on entrepreneurial motivation.

Entrepreneurial motivation plays a mediating role in the relationship between perceived environmental support and entrepreneurial intention.

2.5.2.1 Perceived Educational Support and Entrepreneurial Motivation

Education and training, especially when they are in the area of entrepreneurship, can influence students' interest in entrepreneurship. Students' motivation to choose entrepreneurship as a future profession will be strengthened by the various forms of support they receive from the educational side while they are in college (Phuong et al., 2020). The enhanced motivation and attitude brought about by entrepreneurship education lead to higher entrepreneurial intentions (Mahendra et al., 2017). Students who are exposed to entrepreneurship-related educational initiatives obtain useful expertise and skills that are practically useful in the entrepreneurial world. They can further develop their understanding and practical experience in the entrepreneurial field by actively taking part in entrepreneurship-related activities like launching a business or working on entrepreneurial initiatives. Students' entrepreneurial motivation develops and grows as a result of their perception of educational assistance and their participation in entrepreneurial activities.

Several empirical studies have proved that entrepreneurship education enhances entrepreneurial motivation. Phuong et al. (2020) revealed that students' desire to become entrepreneurs is strengthened by the entrepreneurial educational support they receive in the form of information, skills, and the capacity to launch a business. According to Bazan et al. (2020), the support and encouragement that educational institutions provide for learning about entrepreneurship may have an impact on students' motivation to take part in entrepreneurial endeavours. In contrast to these findings, a few studies revealed a non-significant relationship between education support provided by the institution and entrepreneurial motivation. For example, in a survey of college students, Farhangmehr et al. (2016) found little evidence that entrepreneurship education enhances students' motivation to start their own businesses. According to a study conducted by Oosterbeek et al. (2010), the educational programme failed to enhance students' entrepreneurial skills and motivation to become entrepreneurs. The effectiveness of education programmes to foster entrepreneurial motivation depends on the content and quality of the education programmes. Moreover, the availability of resources and support within the educational institution could aim to provide students with practical support, guidance, and connections to further develop their entrepreneurial ideas and ventures.

Despite the importance of entrepreneurial education support in fostering entrepreneurial motivation, there exists a research gap in understanding the intervening effect of entrepreneurial motivation in the relationship between perceived educational support and entrepreneurial intention among the students of HEIs in Kerala. To fill this gap, empirical studies are needed to explore the intervening effect of entrepreneurial motivation in the relationship between perceived education support and entrepreneurial intention in the context of Kerala, which can contribute valuable insights to the field of entrepreneurship education.

Recent studies (Phuong et al., 2020; Wu & Mao, 2020) have reported that perceived educational support has a direct positive influence on entrepreneurial motivation. Moreover, in a study conducted by Mahendra et al. (2017), the relationship between entrepreneurship education support and intention proved to be not directly affected, but entrepreneurship education improves motivation and attitude towards entrepreneurship, which in turn enhances entrepreneurial intention. Similarly, in a

recent study, Hassan et al. (2021) discovered that entrepreneurship education enhances entrepreneurial motivations and positively correlates with entrepreneurial intention. Based on these findings and the study's gap, the intervening effect of entrepreneurial motivation in the relationship between perceived educational support and entrepreneurial intention was investigated with the following hypotheses:

Perceived educational support has a positive, direct, and significant effect on entrepreneurial motivation.

Entrepreneurial motivation plays a mediating role in the relationship between perceived educational support and entrepreneurial intention.

2.5.2.2 Perceived Relational Support and Entrepreneurial Motivation

Emotional support from friends and family can boost one's self-confidence and motivation. When one has his family and friends support for his business ideas, it can provide increased motivation for him to pursue his entrepreneurial ideas. Marshall et al. (2019) claim that a family's support increases an entrepreneur's resilience. The perception of support from family and friends may help individuals validate their entrepreneurial dreams and ideas, boosting their self-belief and willingness to work towards their objectives. Shen et al. (2017) found that students' positive perception of family support motivates them to pursue entrepreneurial ventures. Cardella et al. (2019) conducted a systematic review of family support constructs leading to motivation to pursue entrepreneurship and discovered that an individual's motivation is boosted by the fact that their family and friends support them and encourage them in their business endeavours. Obschonka et al. (2012) asserted that social norms serve as a key determinant of entrepreneurial motivations and that effective role models support students' entrepreneurial ideas and motivate them to pursue entrepreneurship.

The association between perceived relational support and entrepreneurial intention and motivation has been the subject of studies. But studies examining the mediating role of entrepreneurial motivation in the relationship between perceived relational support and students' entrepreneurial intention are limited, especially in the Kerala Context. In order to fill this gap, the present study investigates the mediating effect of entrepreneurial motivation in the relationship between perceived relational support and entrepreneurial intention.

As discussed above, the findings from earlier studies (Cardella et al., 2019; Marshall et al., 2018; Obschonka et al., 2012; Shen et al., 2017) allow us to draw the conclusion that there exists a positive, direct, and significant effect in the relationship between perceived relational support and entrepreneurial motivation. Simultaneously, earlier empirical studies (Jermsittiparsert et al.,2020; Tentama, 2018) have proven that entrepreneurial motivation contributes to entrepreneurial intention. Based on this presumption and the gap in the research, the intervening effect of entrepreneurial motivation in the relationship between perceived relational support and entrepreneurial intention was investigated with the following hypotheses:

Perceived relational support has a positive, direct, and significant effect on entrepreneurial motivation.

Entrepreneurial motivation plays a mediating role in the relationship between perceived relational support and entrepreneurial intention.

2.5.2.3 Perceived Structural Support and Entrepreneurial Motivation

Structural support from the government and other institutions can significantly influence an individual's motivation to engage in entrepreneurial activities by providing supportive policies, regulations, and funding opportunities. Government policies and regulations may create an enabling environment that motivates aspiring entrepreneurs to pursue entrepreneurship. Additionally, a person's motivation to pursue entrepreneurship may be influenced by having access to funding sources like grants, loans, and venture capital, which can stimulate entrepreneurial endeavours. Furthermore, a lack of initial capital and difficulty in raising loans demotivate a person to pursue entrepreneurship (Sharma, 2018; Shinnar et al., 2012).

Building upon the work of Autio et al. (2014), who highlighted the essentiality of government support, economic conditions, and marketing opportunities for the development of entrepreneurial motivation among youth, it is believable that the perception of structural support provides a supportive framework for the growth of entrepreneurial motivation. However, challenging this viewpoint, Wu and Mao's (2020) study suggests that government support may not have a significant impact on entrepreneurial motivation, questioning its influential role in motivating individuals to start a venture. In light of this contrasting viewpoint, it becomes imperative to

conduct a more in-depth analysis of the relationship between perceived structural support and entrepreneurial motivation. Additionally, it can be inferred that perceived structural support has the potential to enhance entrepreneurial motivation (Autio et al., 2014), and in turn, entrepreneurial motivation may enhance entrepreneurial intention (Tentama, 2018). Therefore, examining the intervening effect of entrepreneurial motivation in the relationship between perceived structural support and entrepreneurial intention becomes relevant. Based on these presumptions, the present study aims to explore the intervening role of entrepreneurial motivation in the relationship between perceived structural support and entrepreneurial intention, leading to the formulation of the following hypotheses:

Perceived structural support has a positive, direct, and significant effect on entrepreneurial motivation.

Entrepreneurial motivation plays a mediating role in the relationship between perceived structural support and entrepreneurial intention.

2.6 Perceived Entrepreneurial Barriers

2.6.1 Perceived Entrepreneurial Barriers and Entrepreneurial Intention

Perceived barriers have a detrimental influence on students' entrepreneurial intentions (Pruett et al., 2009). Dölarslan et al. (2020) asserted that barriers often account for a significant proportion of the variance in behaviour (Lien et al., 2002). Recognising and eliminating barriers to entrepreneurial intention is crucial to motivating and supporting prospective entrepreneurs to be successful (Malebana, 2015). Some of the studies employ cross-cultural comparisons to examine the effects of perceived barriers on entrepreneurial intention (Pruett et al., 2009; Giacomin et al., 2011; Shinnar et al., 2012; Schlaegel et al., 2015; Sharma, 2018). Pruett et al. (2009) examined the perceived barriers influencing business decisions among university students in the United States, China, and Spain and presumed that perceived barriers adversely affect intention. The study also found that the essential significance of each barrier factor differed among the three nations. Giacomin et al. (2011) conducted a culturally diverse review among students from the United States, Europe, and Asian nations concerning their entrepreneurial intentions in the specific circumstances of perceived barriers. Results showed that entrepreneurial intention is negatively influenced by perceived

barriers, with a lack of entrepreneurial expertise and experience being the strongest barrier. Further, each barrier differs by country of origin. A cross-cultural study conducted by Shinnar et al. (2012) with a sample of students from China, America, and Belgium found that culture and gender moderate the relationship between perceived barriers and entrepreneurial intention. The study also found that students who perceive lower entrepreneurial barriers are more likely to start a new venture in the future.

Gender differences in the perception of the barrier were found in many empirical studies (Sandhu et al., 2011; Shinnar et al., 2012). Sharma (2018) also affirmed a solid, measurable relationship between perceived barriers and gender. But at the same time, in a study conducted by Sitaridis and Kitsios (2020), no major gender difference was found between male and female information technology students in Greece.

Numerous factors can assist or hinder the development of entrepreneurial intention and its translation into the creation of a new venture. Previous empirical studies have highlighted a range of barriers that hinder the formation of students' entrepreneurial intentions. Students are reluctant to undertake entrepreneurial initiatives when they perceive that the accessible capital is insufficient for starting a business (Yao et al., 2016). Lack of funds may hamper the relationship between intention and behaviour. The negative influence of perceived lack of funds on entrepreneurial intention and behaviour has been tested in many previous studies (Birdthistle, 2008; Choo & Wong, 2006; Herman, 2019; Malebana, 2015; Nemar et al., 2016; Rasool et al., 2022; Samuel et al., 2013; Sarri et al., 2018). Studies have proven that lack of initial capital (Giacomin et al., 2011; Sharma, 2018), lack of personal savings and resources (Uddin et al., 2015; Volery et al., 1997), lack of assets for collateral securities (Uddin et al., 2015), and difficulty in obtaining loans (Shinnar et al., 2012; Uddin et al., 2015) negatively impact entrepreneurial intention. Several empirical studies have reported that fear of failure acts as a significant barrier that hinders the formation of entrepreneurial intention (Malebana, 2015; Kong et al., 2020; Rasool et al., 2022; Sandhu et al., 2011; Sidrat et al., 2016; Shinnar et al., 2012; Venesaar et al., 2006). As entrepreneurship is a risky venture, individuals involved in it should be able to deal with challenging situations. Studies have noted that individuals with risk aversion are less likely to become self-employed (Zhao et al., 2010). Daza et al. (2023), in their

recent study, found that fear of failure has a detrimental influence on growth targets, with a significant difference in both developed and developing countries. Fear of failure might also hamper the link between intention and behaviour (Kong et al., 2020). Concerns about potential financial loss might make this fear more intense for prospective entrepreneurs. Another relevant barrier faced by students who intend to start a business in the future is a lack of support from family and friends (Schlaegel et al., 2015; Shinnar et al., 2012). Several empirical studies have proven that a perceived lack of social support is an important barrier that negatively influences entrepreneurial intention (Ismail, 2015; Sandhu et al., 2011; Schlaegel et al., 2015; Shinnar et al., 2012). But at the same time, lack of support from family and friends was not found to be a great barrier in the South African context (Malebana, 2015). According to Lüthje and Franke (2003), perceptions of contextual foundation factors such as qualified advisors and service assistance influence the intention to start a business. Insufficient competence has been consistently shown in numerous studies to have a detrimental impact on entrepreneurial intention (Hamilton & Klert, 2018; Raj & Murugan, 2018; Smith & Beasley, 2011). Lack of entrepreneurial competencies such as managerial and marketing skills (Robertson et al., 2003), business knowledge, training, and expertise (Dölarslan et al., 2020; Rasool et al., 2022) proved to have a negative influence on a potential entrepreneur's intention to start a business. According to Sidrat et al. (2016), there exists a gap between theoretical concepts about business development and the practical knowledge needed for management and business practice. Some studies, however, did not find a relationship between perceived barriers and entrepreneurial intention (Adjei et al., 2014; Hadjimanolis & Poutziouris, 2011; Schwarz et al., 2009). Based on the above-mentioned previous studies, lack of support, lack of competency, fear of failure, and lack of funds were the main barriers found to hinder the formation of entrepreneurial intention among students (Malebana, 2015; Pruett et al., 2009; Schlaegel et al., 2015; Shinnar et al., 2012). Further, entrepreneurship barriers vary depending on the individual or group, their strengths, and how they are integrated (Kouriloff, 2000; Sharma, 2018), and identifying a situation as a barrier depends on the context (Katundu & Gabagambi, 2016). Hence, it is worthwhile to examine the effect of perceived barriers on entrepreneurial intention in the Context of Kerala.

Many empirical studies have proved that individuals' career preferences and entrepreneurial intentions are influenced by their perceptions of barriers to entrepreneurship (Choo & Wong, 2006; Pruett et al., 2009; Sandhu et al., 2011; Shinnar et al., 2012). Studies have revealed that perceived barriers negatively influence entrepreneurial intention (Dölarslan et al., 2020; Ismail, 2015; Malebana, 2015; Rasool et al., 2022; Schlaegel et al., 2015; Yao et al., 2016). The more unconquerable barriers a person perceives to be there for starting a business, the weaker their entrepreneurial intention will be (Lüthje & Franke, 2003). Based on these assumptions and findings, the following hypothesis was formulated:

Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial intentions.

2.6.2 Perceived Entrepreneurial Barriers and Entrepreneurial Attitude

Perceived barriers are subjective assessments of impediments or difficulties in undertaking entrepreneurial activity. They can have a significant influence on an individual's attitude towards business and how willing they are to work on projects that are entrepreneurial in nature. People may have an unfavourable attitude towards entrepreneurship if they think the obstacles are overwhelming or the prospect of failure is very likely. Entrepreneurial attitudes can be negatively affected by perceived barriers connected to lack of resources and information, lack of support, fear of failure, etc., which can result in a lower intention to pursue entrepreneurship as a career. Numerous earlier studies have demonstrated that perceived barriers have a detrimental impact on an individual's attitude towards business and intentions.

Despite how appealing the advantages of becoming an entrepreneur are, positive attitudes towards it can shift and turn negative when people encounter a number of obstacles that hinder them from achieving these benefits (Malebana, 2015). A study conducted by Chinta and Collier (2022) among nascent entrepreneurs found that female entrepreneurs' attitudes towards business are negatively influenced by their perception of barriers. Kebaili et al. (2017) found that institutional and psychological barriers affect the entrepreneurial attitude and intentions of Qatari male students. According to previous studies, those who have a higher propensity to take risks have high levels of entrepreneurial intention and a better attitude towards business (Anwar

et al., 2021; Munir et al., 2019), while fear of failure can prevent prospective startup companies (Sandhu et al., 2011; Shinnar et al., 2012). Entrepreneurial attitudes might be severely impacted by perceiving risk as a barrier (Nabi & Liñán, 2013).

The above findings can prove that perceived barriers have a detrimental effect on entrepreneurial attitudes. Hence, attitude towards entrepreneurship has a direct effect on entrepreneurial intention; the negative influence of perceived barriers on entrepreneurial attitude can lead to lower entrepreneurial intention. There exist studies that show the direct relationship between perceived barriers and entrepreneurial attitude on entrepreneurial intention as well as perceived barriers on entrepreneurial attitude. But studies focusing on the indirect relationship and considering entrepreneurial attitude as a mediating variable in the link between perceived barriers and entrepreneurial intention are limited. To fill this gap, the present study examines the intervening effect of entrepreneurial attitude in the link between perceived barriers and entrepreneurial intention among the students of HEIs in Kerala. By applying this theory in an appropriate context, the study seeks to add to the corpus of the existing body of research.

Previous empirical studies have proven that perceived barriers negatively influence entrepreneurial attitudes (Chinta & Collier, 2022; Kebaili et al., 2017; Nabi & Liñán, 2013; Shinnar et al., 2012). Moreover, studies conducted by Law and Breznik (2017), Naushad (2018), and Zhuang et al. (2022) revealed that there exists a direct relationship between entrepreneurial attitude and the intention to start a business. On the basis of these findings and presumptions, the present study intends to examine the mediating effect of entrepreneurial attitude in the relationship between perceived barriers and entrepreneurial intention using the following hypotheses:

Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial attitudes.

Entrepreneurial attitude has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.

2.6.3 Perceived Entrepreneurial Barriers and Entrepreneurial Self-efficacy

An individual's self-efficacy and belief in their ability to succeed as an entrepreneur can be hindered by perceived impediments, leading to a lack of confidence. People might underestimate their own capabilities to effectively move through the business landscape when they see considerable barriers. This can lead to a fear of failure and a decrease in their entrepreneurial goals and aspirations. Self-efficacy can contribute to entrepreneurial intention, but perceived barriers and a lack of support can have a detrimental effect on the evaluation of the relationship between self-efficacy and entrepreneurial intention (Dölarslan et al., 2020). Social support strengthens individuals' self-efficacy that they can conquer whatever challenges they may encounter while pursuing a specific activity, while a lack of support negatively affects their confidence in performing an activity. McWhirter (1997) found that lower self-efficacy expectations for conquering perceived barriers can lead to realistic perceptions of barriers that reduce interest-choice coherence. Individuals may avoid a career due to perceived barriers, even if they have high career self-efficacy (Albert & Luzzo, 1999). The higher the perceived barriers, the more negative their career outcome expectations are (Ma & Shea, 2021). Many studies have proven that perceived barriers negatively influence self-efficacy. In particular, Lopez and Ann-Yi (2006) demonstrated how students' motivation for education is hampered by perceived barriers to self-efficacy. Through the application of meta-analytic path studies, Sheu et al. (2010) demonstrated the detrimental effect of perceived barriers on self-efficacy. More recently, a meta-analytic path analysis conducted by Lent et al. (2018) using data from 143 studies also showed a negative relationship between perceived barriers and self-efficacy. Mejia-Smith and Gushue (2017), in their study of Latina/o college students' influence of self-efficacy on their perceived barriers, found a significant relationship between self-efficacy and perceived barriers, recognising that higher perceived barriers will lower self-efficacy. The direct effect of perceived barriers on self-efficacy has been examined in many non-entrepreneurship circumstances. Quimby and O'Brien (2004) found that perceived barriers affect career decision-making self-efficacy for non-traditional college women. Wright et al. (2014) found a direct connection between perceived barriers and self-efficacy, where students who perceived fewer barriers had higher adequacy in both academic and professional

spaces. Students might appraise their capacities based on the idea of the boundaries they hope to experience. Dolarslan et al. (2020), in their study to examine the entrepreneurial intention formation mechanism concerning perceived barriers and self-efficacy, found that barriers have a direct effect on entrepreneurial intention and entrepreneurial self-efficacy acts as an intervening variable to lessen the impact. The study revealed the need to consider the constraining effect of perceived barriers when assessing the effect of entrepreneurial self-efficacy on the formation of entrepreneurial intention. Moreover, Lent et al. (2000) evaluated various works of literature based on career barriers in the viewpoint of Social Cognitive Career Theory and featured a few new directions for research on career decision conduct. The study endeavoured to construct a more grounded linkage between the career choice-career barrier processes and proposed that the impacts of career barriers on career-related choice behaviour ought to be evaluated. Thus, the study suggested investigating a few potential manners in which self-efficacy and perceived barriers might interrelate.

The above-mentioned study findings reveal that perceived barriers have a detrimental effect on entrepreneurial self-efficacy. As there is a direct relationship between entrepreneurial self-efficacy and entrepreneurial intention, the negative influence of perceived barriers on entrepreneurial self-efficacy can lead to lower entrepreneurial intention. There exist studies that show the direct relationship between perceived barriers, entrepreneurial self-efficacy, and entrepreneurial intention. But studies focusing on the indirect relationship and considering entrepreneurial self-efficacy as an intervening variable in the link between perceived barriers and entrepreneurial intention are limited. To fill this gap, the present study aims to investigate the intervening role of entrepreneurial self-efficacy in the relationship between perceived barriers and entrepreneurial intention among the students of HEIs in Kerala.

Previous empirical studies have proven that there is a negative relationship between perceived barriers and entrepreneurial self-efficacy (Mejia-Smith & Gushue, 2017; Quimby & O'Brien, 2004; Sheu et al., 2010;). Moreover, studies conducted by Anwar et al. (2021), Biswas and Verma (2021), and Naushad and Syed (2018) revealed that there exists a direct relationship between entrepreneurial self-efficacy and the intention to start a business. Further, Lent et al. (2003), in their study using a sample of 328 engineering students, found that perceived environmental supports and barriers

have a direct impact on self-efficacy and that, through self-efficacy, environmental supports and barriers are connected to goal achievements in a roundabout way and not directly. Thus, it can be concluded that self-efficacy mediates the relationship between perceived barriers and entrepreneurial intention. On the basis of these findings and presumptions, the present study intends to examine the intervening role of entrepreneurial self-efficacy in the relationship between perceived barriers and entrepreneurial intention using the following hypotheses:

Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial self-efficacy.

Entrepreneurial self-efficacy has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.

2.7 Socio-Demographic, Economic and Background Factors

2.7.1 Gender

Gender disparities in college students' entrepreneurial intentions have been investigated in many previous studies. When compared to women, men often have a larger propensity for entrepreneurship and a more positive outlook on it. (Khanal & Prajapati, 2023). Social conditions, such as traditions and customs, are crucial because they shed light on gender-specific entrepreneurial behaviour (Haus et al., 2013). In the Asian context, women's willingness to start their own businesses may decline since they are traditionally seen as being in charge of caring for the family and raising children (Khanal & Prajapati, 2023).

Few studies have examined the connection between gender and entrepreneurial behaviour-relevant constructs and shown that men take more risks (Brindley, 2005) and have better levels of self-efficacy (Boyd & Vozikis, 1994). According to studies conducted by Zhao et al. (2005) and Wilson et al. (2007), a greater percentage of women reject the decision to pursue an entrepreneurial career because they feel they lack the necessary skills. Further, Tian et al. (2022) affirmed that men are frequently thought to have greater pro-entrepreneurial psychological traits compared to women because of socially enforced gender norms. Besides, Pihie and Bagheri (2009) highlighted a notable distinction between the genders in terms of entrepreneurial intention and found male students scored better than their female counterparts.

Additionally, gender was found to act as a moderating variable in studies conducted by Tian et al. (2022) and Bagheri and Lope Pihie (2014). A study conducted by Roy and Das (2020) revealed that in India, the association between personality traits and entrepreneurial intention is moderated by gender, with the relationship being stronger for men than for women. Likewise, Shirokova et al. (2016) found that gender has a significant moderating effect on the translation of entrepreneurial intentions into entrepreneurial actions among student entrepreneurs. Furthermore, Shinnar et al. (2012) found that gender had a moderating effect on the relationship between barriers and entrepreneurial intentions, with men demonstrating a stronger negative relationship than women in the Western countries of the USA and Belgium and showing a reverse trend in China. The presence of a supportive entrepreneurial environment may have a greater influence on encouraging women's entrepreneurial goals as was discovered in a study conducted by Tian et al. (2022), in which gender moderates the association between perceived entrepreneurial support and entrepreneurial intention among Chinese students, and women show higher levels of entrepreneurial intention when they perceive favourable entrepreneurial support.

However, it is crucial to keep in mind that these differences may also be influenced by individual variances and environmental circumstances. In a study conducted by Daim et al. (2016), students from ten countries found that gender differences in entrepreneurial intention and its antecedents are contingent upon the student's country of origin. Moreover, in a sample of students from India, Singapore, and Malaysia, Trivedi (2017) discovered that women in developing nations showed lower levels of entrepreneurial intent than those in developed nations as they were constrained by more pervasive gender norms and household duties.

The literature review highlights the existence of gender disparities in entrepreneurial intention and its precursors. It demonstrates that, as compared to their female counterparts, male students often have higher levels of entrepreneurial inclination. These disparities can be attributed to various factors, such as cultural and societal standards, generalised fear of taking risks, restricted access to financial resources, and a dearth of female role models in business. Kerala's entrepreneurial ecosystem has experienced significant growth in recent years, but there is a need to further understand the association between gender and entrepreneurial intention.

2.7.2 Stream of Study

Previous studies suggest that students' academic areas of expertise or stream of study may have an impact on their entrepreneurial intentions. Wu and Wu (2008) found that the disparity in entrepreneurial intentions among Chinese university students can be attributed to differences in educational backgrounds. Students' entrepreneurial intentions are shaped by their antecedents, which can change depending on the academic stream or subject of study. For instance, students in business-related fields tend to possess higher self-efficacy, risk-taking capacity, entrepreneurial motivation, market knowledge, and a better attitude towards business. Students from non-business fields, on the other hand, may be more innovative and experimental and possess opportunity recognition skills. According to several studies, students from particular disciplines, such as commerce, management, and engineering, have more entrepreneurial tendencies than students from other academic subjects (Manuere et al., 2013). A study conducted by Dao et al. (2021) reveals that engineering students exhibit higher entrepreneurial intention compared to business students. This may be due to the curriculum's focus on innovation, problem-solving skills, and business-related knowledge in these streams of study. The findings of Dao et al. (2021) suggested the need to explore the underlying factors and motivations driving entrepreneurial inclination among engineering students, and consider incorporating entrepreneurship education and support tailored specifically to business students to enhance their entrepreneurial intention. Further, Berglund and Wennberg (2006) compared engineering and business students to assess the creativity of entrepreneurship and found that both groups of students have great creative potential. While business students were more speculative and had a stronger market orientation, engineering students focused their creative potential on practical and gradual endeavours. Additionally, students' desires to become entrepreneurs may be favourably influenced by exposure to entrepreneurial ideas and methods within various educational programmes.

Academic specialisations can influence a student's desire to start their own business, with certain study areas more entrepreneurially inclined than others. Manuere et al. (2013), in a survey conducted among 400 final-year undergraduate students from five different schools at Chinhoyi University of Technology, Zimbabwe, found that

respondents with a background in business and management had more entrepreneurial expertise than respondents from other academic fields. Besides, Wang and Wong (2004) carried out a study on college students at the National University of Singapore and found that the lack of adequate business knowledge is one of the key problems that need to be addressed to improve entrepreneurial interest. They also highlighted the importance of offering business education to engineering and science students.

Higher education institutions need to develop more adaptable strategies to focus on distinct student groups according to their different educational backgrounds (Wu & Wu, 2008). Further, for entrepreneurship education programmes and support activities to be tailored to particular student groups, it is essential to understand the causes and mechanisms by which study streams impact entrepreneurial intention. Hence, HEIs may promote an entrepreneurial culture that crosses disciplinary boundaries and stimulates innovation and entrepreneurship among all students by recognising the particular demands and problems faced by students in various study streams. Moreover, to foster university students' entrepreneurial intents, higher educational institutions must incorporate the change in thinking, skills, and abilities about entrepreneurship into their general academic education (Wu & Wu, 2008). Previous studies exploring the influence of academic streams on entrepreneurial intention and antecedents have yielded insightful results. The literature, however, is lacking in terms of Kerala's unique environment and its varied educational landscape. Hence, there is a need to find the association of streams of study with regard to entrepreneurial intention and its antecedents.

2.7.3 Family Income

Family income is identified as a significant predictor of entrepreneurial intention in many empirical studies. The relationship between family income and entrepreneurial intention among students has been the focus of entrepreneurship research for many years. Higher family income levels are associated with more resources, financial security, and less fear of failure, which raises the likelihood of choosing entrepreneurship as a career choice. The urge for entrepreneurship, on the other hand, may be hampered by lower family income levels, which may lead to limited access to money, a lack of financial stability, and an aversion to risk. People with more affluent

backgrounds have stronger entrepreneurial intentions (Janeska-Iliev & Debarliev, 2020).

Higher family incomes may give students better access to financing, mentorship, and networking possibilities, but lower family incomes may limit the resources' availability. However, the family's financial situation may also have an impact on the level of support and encouragement for entrepreneurial efforts, as higher incomes are associated with a more supportive environment, while lower income levels may favour stable employment over entrepreneurial pursuits. Wang et al. (2011), in their study among students from China and America, found that social and financial support offered by parents who are really successful entrepreneurs is a significant component that could encourage and enhance attractiveness towards business. Moreover, children of wealthy parents experience less financial stress and a stronger inclination for risk-taking in their activities, which indirectly influences the respondents' plans to become entrepreneurs. However, family income and financial risk tolerance were found to have a considerable positive influence on the development of entrepreneurial intention (Gujrati et al., 2019; Zeb et al., 2021). In contrast to this, no statistically significant relationship between students' entrepreneurial intention and family income levels was found in a study conducted by Din et al. (2020) among students from a polytechnic institute in Perlis, Malaysia. Similarly, a study conducted by Wang and Wong (2004) on students at the National University of Singapore found that entrepreneurship is unaffected by income, and individuals' drive for entrepreneurship was found to be stronger than their family's financial backing. Moreover, the financial capability of the family has no relationship with entrepreneurial desire, according to Thrikawala's (2011) study on the entrepreneurial intentions of academics in Sri Lanka. Similarly, Sharma (2014) reported that there exist no association between the entrepreneurial intentions of higher education students in Uttarakhand, India, and the family's financial capital.

The above-discussed study findings reveal that in several studies, family income was found to be a significant contributor to entrepreneurial intention, but at the same time, other studies found that family income does not play a significant influence in the formation of entrepreneurial intention. Cultural and socioeconomic factors are linked to the impact of family income on entrepreneurial intention and may vary in different

contexts. Hence, there arises the need to investigate the association of family income with entrepreneurial intention and its antecedents.

2.7.4 Family Business Background

In the context of entrepreneurial intention, the influence of the family is vitally important. Parents who are proprietors of businesses pass on their knowledge, connections, and relationships to their offspring, giving them access to resources and advantages. The family's entrepreneurial culture and positive entrepreneurial role models in the student's local environment serve as powerful motivators for people to start their own businesses (Vuković et al., 2020). According to Hoffmann et al. (2015), the probability of becoming self-employed is higher for children of entrepreneurial parents. Entrepreneurial parents serve as role models and sources of management expertise in the family (Nguyen, 2018). Further, young pupils from families with businesses had the chance to observe and experience an enterprise setting, which influenced their motivation to pursue entrepreneurship in the future (Wang & Wong, 2004). According to Drennan et al. (2005), those who had a positive opinion of their family's business history thought that starting their own business was both appealing and achievable. Correspondingly, Carr and Sequeira (2007) stated in their study that the beliefs, attitudes, and behaviours that people eventually adopt throughout their lives are strongly influenced by their family backgrounds, and their study results showed that entrepreneurial intention is strongly influenced by family business background through the mediation variables of entrepreneurial attitude, perceived family support, and entrepreneurial self-efficacy. A similar result was found by Kume et al. (2013), which showed that experience in the family business, whether direct or indirect, has a significant impact on people's attitudes, values, and self-efficacy with regard to entrepreneurship. Likewise, Prabhu and Thomas (2014) evaluated parents' effects on their children's entrepreneurial attitudes and discovered that business school students' entrepreneurial attitudes are significantly influenced by parental role modelling, business family culture, family income, network access, and parents' educational background. Further, a study conducted by Nandanamoorthy (2013) among postgraduate students from the Cuddalore district, Tamil Nadu, revealed that prior experience and family business exposure were crucial in promoting the entrepreneurial intentions of students. In addition, the findings of Ertuna and Gurel

(2011) also implied that having a family background in entrepreneurship can significantly impact an individual's intention to start a business which highlights the importance of familial influence in shaping entrepreneurial aspirations.

Despite the fact that numerous studies have shown that the offspring of entrepreneurs have a higher likelihood of becoming self-employed, there are studies that reveal no substantial impact of family business background on students' entrepreneurial intentions. Eyel (2019) examined the influence of family background on entrepreneurial tendencies among university students in Istanbul, Turkey, and found no significant influence of family background in determining the entrepreneurial tendencies among the students. Likewise, Taneja and Gandhi (2015) discovered that familial background did not affect students' entrepreneurial personality traits in a study conducted among management students from Ahmedabad. In light of the existing literature indicating the effect of family business background on students' entrepreneurial intention, the present study intends to find the association between family business background and entrepreneurial intention and its antecedents.

2.7.5 Entrepreneurial Course

Entrepreneurship-related courses are becoming more popular as innovation and entrepreneurship gain more prominence. An individual's exposure to entrepreneurial education has an enormous effect on the way in which their entrepreneurial intention is formed (Abun et al., 2022). Studies focused on the effect of entrepreneurship courses on entrepreneurial intention are therefore becoming increasingly important in today's society. Entrepreneurial courses are specialised educational programmes with the goal of providing individuals with the information, abilities, and real-world understandings linked to business.

Numerous studies have explored the impact of entrepreneurial courses on aspiring entrepreneurs, consistently demonstrating their beneficial effects. According to Zhang et al. (2022), students who completed entrepreneurship courses tended to be more interested in the field of entrepreneurship. Moreover, entrepreneurial courses enhance social capital by offering mentoring programmes, networking opportunities, and access to business ecosystems that further fuel their entrepreneurial intentions. Further, the opportunities for practical learning, exposure to case studies, and

encounters with successful entrepreneurs provided by entrepreneurial courses assist in influencing people's attitudes towards entrepreneurship and increase their self-efficacy, which in turn leads to more confidence in their ability to start a business and a stronger intention to pursue entrepreneurial ventures (Wu et al., 2022; Jones et al., 2010). In addition, individuals who pursue entrepreneurial courses acquire a better understanding of business planning, market analysis, and financial management, thereby improving their willingness to engage in entrepreneurial activities and launch their own business enterprises (Ndofirepi, 2020). Similarly, individuals who undertake entrepreneurial courses have a better understanding of the barriers, risks, and rewards of becoming entrepreneurs. Moreover, higher entrepreneurial intention results from exposure to successful business people, industry expertise, and supporting networks. A study conducted by Darmanto and Yuliari (2018) highlights that entrepreneurial students who engage in entrepreneurial learning through coursework and practical experiences demonstrate improved entrepreneurial self-efficacy. This suggests that the acquisition of knowledge and skills through entrepreneurial courses enhances their ability to manage a business, identify business opportunities, establish partnerships, exhibit an entrepreneurial mindset, and adapt to new challenges. These experiences contribute to fostering a stronger belief in their own capabilities to achieve entrepreneurial success.

Prior exposure to ethics coursework may have an impact on a person's understanding of the moral and ethical ramifications of entrepreneurship, which in turn may have an impact on their tendency to engage in entrepreneurial activity (Khanal & Prajapati, 2023). Though many studies have shown a positive correlation between entrepreneurial courses learned and students' desire to choose entrepreneurship, a subset of studies have produced conflicting results, showing that students from general studies had stronger entrepreneurial intentions than those who had taken specialised entrepreneurship courses (Popescu et al., 2016). A significant finding of the study conducted by Chen et al. (2015) revealed that, entrepreneurial courses may not have a direct impact on students' intentions to become entrepreneurs but can still offer valuable insights into their future career pathways. A similar result was found in a study conducted by Khanal and Prajapati (2023). In light of the above-discussed

matters, the present study aims to examine the association between entrepreneurial courses learned and entrepreneurial intention among the students of HEIs in Kerala.

2.7.6 Membership in Innovation and Entrepreneurship-Oriented Cells or Clubs

Membership in innovation and entrepreneurship-oriented cells or clubs may enhance formal entrepreneurship education by enabling student-led activities and creating more room outside of the curriculum for students to take initiative (Pittaway et al., 2011). There are only limited studies exploring the effectiveness of entrepreneurial-oriented cells or clubs existing in educational institutions, especially in HEIs in Kerala.

Entrepreneurship and innovation-oriented cells or clubs are considered to be unofficial, unaccredited student-led organisations with the primary goal of drawing students' interest in learning about business and gaining entrepreneurial knowledge and skills to either launch their own enterprises or just become more enterprising individuals (Pittaway et al., 2011). Moreover, entrepreneurial cells or clubs tend to offer activities including talks by businesspeople, networking opportunities, competitions, and workshops. Additionally, innovation and entrepreneurial-oriented cells or clubs serve as a basis for experiential learning and provide a secure environment wherein members can understand more about entrepreneurial activities, try new things, and work to improve their entrepreneurial abilities (Clark et al., 2008; Pittaway et al., 2011; Whitehurst et al., 2008). Studies have proven that association with innovation and entrepreneurship-oriented clubs or cells benefits the student community since they offer hands-on learning outside the bounds of the curriculum (Grinder et al., 1999; Pittaway et al., 2011).

Due to the scarcity of research on the effectiveness of innovation and entrepreneurial-oriented cells or clubs within higher education institutions in Kerala, the present study aims to investigate the association between entrepreneurial intention and membership in such clubs or cells.

2.7.7 Entrepreneurial Support Activities

Entrepreneurial activities conducted by higher education institutions, such as guest speakers, business proposal contests, mentoring, coaching, seminars, conferences, and workshops, significantly influence students' interest in entrepreneurship, their ability

to recognise business prospects, the growth of their entrepreneurial potential, and the development of their entrepreneurial communication skills (Coduras et al., 2008; Hua et al., 2022). Developed countries have long prioritised the practical components of teaching and learning by actively changing teaching models and activities and pursuing a transformational approach in their institutions. Similarly, they have also made dedicated efforts to deepen student engagement in the classroom. In line with this, emerging nations have started to embrace and use this strategy in their educational institutions after recognising its value.

HEIs nowadays focus more on entrepreneurial activities to educate and empower students, providing them with the knowledge and abilities needed for success in business and innovation. Similarly, HEIs could encourage students to take part in extracurricular activities and interact with others to develop an entrepreneurial mindset and skill set (Cui et al., 2021; Hau et al., 2022). According to Maresch et al. (2016), the degree to which entrepreneurial activities in higher education affect students' willingness to launch a business varies significantly between science and arts majors, with science students experiencing a negative impact due to factors like low emotional intelligence.

Numerous empirical studies conducted in the past have revealed that entrepreneurial support activities have a considerable influence on students' entrepreneurial attitudes, self-efficacy, and entrepreneurial intentions (Souitaris et al., 2007; Tantawy et al., 2021). A study conducted by Asimakopoulos et al. (2019) on a sample of engineering students revealed that entrepreneurial initiatives conducted by the college significantly influence students' self-efficacy. Similarly, a meta-analysis study conducted by Hua et al. (2022) revealed a significant positive association between entrepreneurial activities conducted by universities and students' entrepreneurial intentions. In addition, the study also asserted that HEIs could conduct entrepreneurial activities to improve students' self-efficacy, knowledge base, and awareness and could prepare them for starting their own businesses after graduation. Similar to this, Lorz et al. (2013) discovered through meta-analysis using a sample of 39 impact studies that there exists a positive correlation between entrepreneurial support activities conducted by higher education institutions and students' entrepreneurial intentions. In contrast to this, Oosterbeek et al. (2010), in a longitudinal survey, found that

entrepreneurial support activities conducted by educational institutions had a detrimental impact on students' entrepreneurial intentions. Recently, a study conducted by Nabi et al. (2018) revealed inconsistent findings showing that entrepreneurial knowledge and inspiration were enhanced through entrepreneurial support programmes conducted by a British university, but there was no appreciable difference in the students' entrepreneurial intention between support programme participants and non-support programme participants. As a result, the investigations looking into the link between entrepreneurial support activities conducted by the institution and students' entrepreneurial intentions reached contradictory conclusions. Thus, it is necessary to investigate the association between entrepreneurial support activities and students' entrepreneurial intentions in different contexts. In this sense, the present study examines the association between entrepreneurial activities conducted and the intention of students to pursue entrepreneurship.

2.7.8 Institution Support for Innovation and Entrepreneurship

Institutional support is a psychological concept in which a student receives the ethical, technical, and financial support of their educational institution to accomplish his or her business efforts (Engle et al., 2011). HEIs are regarded as excellent environments for students to develop their potential skills and entrepreneurial spirit (Zamrudi & Yulianti, 2020). Further, HEIs play a critical role in creating an entrepreneurial environment by providing institutional innovation and entrepreneurial support.

An entrepreneurial ecosystem can be promoted by HEIs by establishing innovation hubs, business incubation centres, and programmes to encourage cooperation, innovation, and knowledge exchange among students, faculty, and business experts. Moreover, HEIs could assist students by imparting them the necessary information and skills for establishing a business and by extending specialised assistance for developing concepts and launching new ventures (Anjum et al. 2020). In addition, this will motivate students to consider starting their own business as a feasible career. Moreover, HEIs are intended to put more emphasis on developing the skills and capacities of interested students than just imparting knowledge. Further, institutions can promote the creation of resources that are useful for entrepreneurial endeavours and thus support the growth of entrepreneurship among college students. Besides,

HEIs are perceived as knowledge providers by creating an environment that encourages the growth of an entrepreneurial attitude (Lestari et al., 2022).

Most developed nations began incorporating entrepreneurial topics into their curricula decades ago (Franke & Lüthje, 2004). Prior studies have shown that institutional support affects people's choices about new businesses and motivates them to start their own ventures (Coduras et al., 2008; Schwarz et al., 2009; Shahzad et al., 2021). Moreover, educational institutions' collaborations and linkages with industry have proven to have a positive impact on students' entrepreneurial initiatives (Towers et al., 2020). Similarly, perceived support from the educational institution is crucial in determining college students' entrepreneurial intentions. Moreover, the association between entrepreneurial self-efficacy and intention can be moderated by university support (Lüthje & Franke, 2003). Saeed et al. (2014a), in their study on a sample of undergraduate Pakistani students, established that the perceived educational support and concept development support provided by the university strongly influence their entrepreneurial intention. Hence, it can be said that the institutional support offered by the academies is vital for the growth and development of new start-ups. Al-Bakari and Mehrez (2017), in an examination of the influence of perceived university support on entrepreneurial attitudes among 1500 Arab undergraduate students, revealed that the curriculum and perceived support from universities have a significant impact on the students' attitudes towards entrepreneurship. Moreover, research conducted by Alfianti et al. (2020) revealed that university support greatly moderates the effects of entrepreneurial literacy on entrepreneurial intention and has a positive and significant impact on entrepreneurial intention. In addition to this, the study also found that student entrepreneurial beliefs are influenced by encouragement from the academic institution's environment. Moreover, the study suggested the serious implementation of student business incubators to enhance entrepreneurial results, specifically the establishment of numerous start-up enterprises by students. Anjum et al. (2020) asserted that perceived university support is crucial for an individual to improve their perception of their capacity for a variety of jobs and to become more motivated and eager to launch a business. The study acknowledged the moderating role of perceived university support in the relationship between entrepreneurial passion and intention.

Institutional support provided for concept and business development has a beneficial impact on students' entrepreneurial self-efficacy (Lestari et al., 2022).

As discussed above, institutional support for innovation and entrepreneurship is considered to be the key tool for encouraging students' desire to pursue entrepreneurial endeavours. But the moderating role of support provided by educational institutions for entrepreneurship and innovation in the relationship between psychological characteristics and students' entrepreneurial intentions has not been explored much. To fill this gap, institutional support for innovation and entrepreneurship is taken into account in the present study as a background factor as well as a moderating variable to explore its effect on the relationship between students' entrepreneurial intention and psychological characteristics consisting of entrepreneurial attitude, self-efficacy, and motivation. Based on this, the following hypothesis was formulated:

Psychological characteristics of the students have a positive effect on their entrepreneurial intentions, and institutional innovation and entrepreneurship support moderate this relationship

2.8 Research Gap

In light of the existing literature review, a significant research gap emerges that calls for further investigation to improve the understanding of the research area. The gaps identified are as follows:

1. The existing studies focus on the independent application of intention-behaviour models and lack an integrated approach. To bridge this gap, an integrated and comprehensive model was developed that incorporates factors from various intention-based models, including the contributions of Ajzen's (1991) planned behaviour model, Luthje and Franke's (2003) structural model of entrepreneurial intention, and Turker and Selcuk's (2009) entrepreneurial support model.

2. The research gap in the current literature pertains to the absence of studies exploring the mediating role of psychological characteristics, specifically entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. Additionally, there is a lack of research investigating the direct and indirect influences of personality traits and environmental factors on

entrepreneurial intention, considering the mediation effect provided by the aforementioned psychological characteristics among students of HEIs from diverse academic streams in Kerala. Consequently, there exist a need for research that addresses this research gap and provides insights into the complex relationship between these variables.

3. It is relatively rare to see entrepreneurial intention studies that address the mediating role of entrepreneurial attitude and self-efficacy in the relationship between perceived barriers and entrepreneurial intention. Thus, the present study tries to fill this gap and advance our understanding of the mediating effect of entrepreneurial attitude and self-efficacy in the relationship between perceived entrepreneurial barriers and intention.

4. There is a scarcity of research considering HEIs as enablers of entrepreneurial intention in developing Asian economies, particularly those focusing on the moderating effect of institutional entrepreneurship and innovation support on the link between psychological characteristics and entrepreneurial intention. As a result, the present study is justified in investigating and filling a research gap by extracting the unique function of institutional entrepreneurship and innovation support as a moderator in the relationship between psychological characteristics and entrepreneurial intention.

The current chapter extensively reviews the existing literature on entrepreneurial intention and its antecedents, providing the researcher with a comprehensive understanding of the research topic. However, research gaps were identified throughout this review, highlighting the need for further studies to address the lack of extensive understanding on the subject. The identified research gaps serve as the foundation for the present study.

CHAPTER 3

THEORETICAL FRAMEWORK AND INTENTION-BASED MODELS

Contents

3.1 Introduction

The present chapter undertakes an in-depth exploration of essential topics, providing a comprehensive understanding of the multifaceted nature of entrepreneurship and approaches to recognising an individual as an entrepreneur. Furthermore, this chapter will explore intention formation models, theories, and frameworks to offer insight into the cognitive processes and elements that shape an individual's decision to become an entrepreneur. Besides, this chapter also discusses various initiatives for the promotion of entrepreneurship and innovation in higher education institutions.

3.2 Choice of Entrepreneurship as a Profession

Entrepreneurship is a crucial driver of economic growth and innovation, particularly in developing nations where small and medium-sized firms contribute significantly to job creation and GDP (Mohammed, 2019). It plays a significant role in innovation, employment, competition, structural change, and stability (Fayolle, 2007). Moreover, it has gained significant attention from academics, researchers, and educators over the past three decades (Pihie & Bagheri, 2013). It gained momentum due to its significance in creating new businesses and job opportunities, boosting economic

growth, national wealth, and competitiveness. (Shahzad et al., 2021). Further, it offers individuals the chance to start from scratch, make a positive impact, and achieve financial success while creating jobs and contributing to the economy.

The COVID-19 pandemic also brought a lot of changes to the economy. Many regular working people started to think beyond their regular income jobs. Entrepreneurship provides an alternate means for a sustainable source of income and mental satisfaction. Moreover, the Indian government's initiatives to make India self-sufficient promoted entrepreneurship at the grass-roots level, making it a sensible professional choice.

Entrepreneurship is a challenging and lucrative profession that requires knowledge, experience, attitude, and skills. It is appealing to those with creativity, invention, and risk-taking capabilities (Anjum et al., 2020; Asmara et al., 2016). Studies have identified individual, social, environmental, cultural, and motivational factors that drive people to consider entrepreneurship as a career path (Fereidouni et al., 2010; Malebana, 2014; Pihie & Bagheri, 2013; Rosa et al., 2006; Wu & Mao, 2020).

The entrepreneurial process has several dimensions, with each school of thought defining entrepreneurship through different processes and activities. The definition differs based on the researcher's point of view, with some focusing on economic aspects while others view it from sociological, psychological, managerial, and social standpoints, giving it a multifaceted meaning (Bula, 2012). Definitions from various perspectives have been offered by different scholars. Bird (1992), in his study, asserted that entrepreneurship is fostered by a person's feeling of drive and self-motivation, necessitating intention towards behaviour. Gartner (1988) considered entrepreneurship to be the process of starting a new business or owning an existing one, while Cunningham and Lischeron (1991) viewed it as a range of tasks that include establishing, obtaining funds, acquiring, and administering a new business. According to Herron and Robinson (1993), entrepreneurship is a collection of behaviours that initiate and manage the reorganisation of assets with the goal of creating value. Entrepreneurs drive industrial expansion, which creates more employment opportunities, increases per capita income, raises living standards, and promotes balanced regional development (Shaikh, 2012). Moreover, Bamber et al.

(2002) use the term entrepreneurship to describe the process of starting a business, including concept development, product or service deployment, and risk management.

Entrepreneurship is an act of invention that increases economic efficiency, commercialises innovation, creates new job opportunities, and maintains employment levels (Wu & Wu, 2008). Shane and Venkataraman (2000) stated that entrepreneurship is intertwined with attractive prospects and entrepreneurial people. Starting a business requires making decisions, taking measured risks, and accepting responsibility. According to Timmons and Spinelli (2004), entrepreneurship is a leadership-balanced, opportunity-based, and comprehensive method of thinking, reasoning, and doing.

Entrepreneurship is the process of identifying market flaws, discovering lucrative opportunities, launching ventures to address unmet demands, or improving existing processes (Kirzner, 1997). It is a mindset that demonstrates a person's drive and capacity to recognise and seize opportunities to create new value or financial success (Ajzen, 1991). Further, Martin and Osberg (2007) considered entrepreneurship a result of the interaction between the circumstances in which an opportunity arises and the person's ability to identify and capitalise on opportunities, making them a reality. The above definitions make it clear that entrepreneurship is the act of spotting and seizing an opportunity in an unfavourable circumstance (Kaish & Gilad, 1991) and requiring a significant amount of quality human resources with a range of skills to convert those opportunities.

Entrepreneurship involves developing something new, as Schumpeter (1934) introduced the concept of innovation in business. Kao (1993) defines it as starting something new or unusual to generate wealth and enhance societal ideals. According to Burns (2014), the fundamental concept of entrepreneurship is finding opportunities and putting novel ideas into action. Moreover, it involves devoting energy, time, and risk to produce something unique, resulting in financial and emotional fulfilment (Bowen & Hisrich, 1986).

Entrepreneurship is influenced by individual, societal, and cultural factors, including motives, experiences, attitudes, sociocultural norms, educational prospects, credit accessibility, financial institutions, infrastructure, and political stability. The National Knowledge Commission (2008) identifies key enabling factors for entrepreneurship,

including personal motivations, socio-cultural mindsets, funding availability, education, incubation, and the business environment.

In accordance with the aforementioned definitions, entrepreneurship requires an entrepreneur, a business opportunity, resources, structure, and a positive atmosphere for success (Schaper & Volery, 2007). Despite a variety of definitions existing for entrepreneurship, most revolve around the notion of finding opportunity in the market and applying innovative thinking to utilise that opportunity to develop new businesses. Common elements include identifying opportunities, novelty, and risk-taking. The present study defines entrepreneurship in the context of students' entrepreneurial intentions, describing it as creating and managing a new venture using resources, talents, and expertise to generate profit and add value. It involves spotting opportunities, developing innovative solutions, and taking calculated risks to create a business that caters to a specific market or addresses a specific issue.

3.3 Entrepreneur as an Individual

Entrepreneurship offers young people a path to success by enabling them to start their own stream of income and generate employment. It is a major engine of economic growth, and individual entrepreneurs play a crucial role in creating new employment opportunities and sustainable progress for the betterment of society. Successful entrepreneurs possess or develop skills that enable them to navigate challenges and grasp opportunities in the marketplace. Studying the entrepreneur as an individual is crucial in intention-based studies, as the entrepreneurial intention is shaped by individual attributes, abilities, and behaviours. This helps researchers pinpoint the traits, viewpoints, and behaviours that are crucial in determining an individual's success in entrepreneurship.

An American economist, Frank Knight defines an entrepreneur as a business owner willing to take risks in a volatile environment. Knight's theory emphasises the importance of taking risks and dealing with uncertainty. Entrepreneurs succeed by recognising and exploiting possibilities that others may overlook or underestimate (Knight, 1921). Moreover, they stand out from other people because of their capacity to see and seize possibilities, thereby securing value for themselves and society.

Joseph Schumpeter, an Austrian economist, believed that innovation and creative destruction enabled the disruption of current industries and the emergence of new ones. He defined an entrepreneur as someone who implements novel combinations, such as creating new products, improving existing ones, developing new manufacturing processes, expanding markets, securing raw material supplies, or restructuring industries (Schumpeter, 1934). Creativity and invention are crucial for fostering economic progress as entrepreneurs combine fresh concepts and resources to produce unique and worthwhile products. These creative combinations provide more effective ways to meet market demand or create new goods (Schumpeter, 1942).

Kirzner (1973) described an entrepreneur as someone who can identify and seize untapped market opportunities, focusing on cognitive processes like alertness and exploration rather than risk-taking and innovation.

McClelland (1961) argued that a nation's need for achievement and economic growth are positively correlated, leading to greater development and increased entrepreneurship. Entrepreneurs possess a strong urge to succeed, motivating them to take chances and seek opportunities. Moreover, they are strong-minded, creative, and proactive, seeking control over their destiny (McClelland, 1961). McClelland (1961) claims that in order to succeed as entrepreneurs, individuals must be highly motivated, energetic, self-worth-driven, problem-solving proficient, prepared for risk-taking, and responsible.

Bird (1988) emphasises intention, commitment, innovation, and risk-taking in entrepreneurship, describing entrepreneurs as individuals with a desire to start a business, accepting risks, and dedicating themselves to success. Moreover, Thomas and Mueller (2000) considered an entrepreneur to be an individual who possesses the psychological traits, personal qualities, and motivational values necessary to start a business. And Robinson et al. (1991) identify achievement, locus of control, self-esteem, and creativity as characteristics associated with entrepreneurs.

Cunningham and Lischeron (1991) divide the concept of an entrepreneur into six primary schools of thought. The great person school identifies entrepreneurs as individuals with intuitive talent, while the psychological school emphasises the distinct psychological characteristics of entrepreneurs. These traits distinguish

entrepreneurs from non-entrepreneurs, with their values, attitudes, and needs serving as their motivation. The classical school emphasises creativity as the primary tenet of entrepreneurial behaviour, while the management school defines entrepreneurs as those who plan, oversee, and accept the risk of operating a firm and making a profit. The leadership school focuses on business owners as powerful mentors who inspire, guide, and lead others to achieve their responsibilities. The intrapreneurship school focuses on individuals who work for organisations and adopt novel concepts without being managers or owners.

In the present study, the psychological traits school of entrepreneurship is applied, which views entrepreneurs as distinctive individuals with certain beliefs and attitudes that drive them and differentiate them from other people. The fundamental tenet of the psychological traits school is that a person's wants, motives, attitudes, and beliefs are what primarily influence their behaviour. Those who share the same characteristics as entrepreneurs will be more likely to act in an entrepreneurial manner than people who do not (Lachman, 1980).

The aforementioned definitions make it abundantly evident that understanding the entrepreneur as a person is vital in order to comprehend start-up procedures and the factors that affect them. The present study concentrated on an entrepreneur as an individual and tried to elaborate on the variables affecting their start-up ambitions. According to the review of the literature, there are three primary approaches to comprehending an individual as an entrepreneur: the trait approach, the behavioural approach, and the cognitive approach. These three approaches differ in what they consider to be the most important factors in comprehending entrepreneurial intention. The discussion of each approach individually in the next part provides further insight into the entrepreneur as an individual.

3.3.1 Entrepreneur: A Trait-Oriented Perspective

The trait approach is a psychological theory that analyses personality characteristics, focusing on an individual's desire to start or engage in entrepreneurial activities. According to the trait theory, a person's inherent distinctive attributes are described by their personal traits, which comprise their feelings, ideas, and emotions when responding in certain ways and situations (McCrae et al., 2000). It implies that

personality may be explained and comprehended by means of a set of consistent, stable characteristics that people possess. Thus, the trait approach is one of the most popular theoretical viewpoints in entrepreneurship research and is effective in understanding and predicting entrepreneurial behaviour (Anwar & Saleem, 2019; Robinson et al., 1991). Entrepreneurship is influenced by personality traits like the need for achievement, ambiguity tolerance, autonomy, risk-taking propensity, innovation, proactivity, and locus of control. These traits are intrinsic to individuals and remain stable and constant over time. Additionally, it is worth noting that the personality traits and individual characteristics of entrepreneurs are crucial elements in the multidimensional entrepreneurial model (Zhao & Seibert, 2006). The trait approach to entrepreneurial intention can explain why certain individuals are more inclined to participate in entrepreneurial activities. Further, it helps identify potential entrepreneurs, design training and education programmes, understand entrepreneurial success, enhance organisational performance, and advance economic and policy development. Besides, personality traits play a crucial role in explaining entrepreneurial behaviours and attitudes.

The personality traits are categorised into two groups: wide and narrow. The broad approach includes the Big Five traits, such as agreeableness, conscientiousness, neuroticism, extraversion, and openness to experience (McCrae & John, 1992). Whereas the narrow approach emphasises traits like risk-taking propensity, need for achievement, innovativeness, locus of control, tolerance for uncertainty, and proactiveness, which significantly influence entrepreneurial career choices. These personality traits motivate individuals to act entrepreneurially. Additionally, it is worth noting that people who are entrepreneurially oriented have greater innovativeness and a higher propensity to take risks (Koh, 1996). Hence, understanding entrepreneurial personality traits is crucial for fostering an entrepreneurial culture. According to studies, personality traits such as achievement need, risk-taking propensity, and innovativeness affect individuals' inclinations to pursue entrepreneurship. Moreover, these traits align with individuals' personalities and contribute to their entrepreneurial success. Hence, the present study considers these three attributes as constructs of personality traits.

3.3.2 Entrepreneur: Behaviour-Oriented Perspective

The behaviour approach is based on the notion that entrepreneurship is influenced not only by external variables like market circumstances or resources but also by individual attributes and behaviours. The behaviour orientation theory focuses on successful entrepreneurs' behaviour patterns, actions, and characteristics rather than internal factors like personal qualities and motives. This approach focuses on understanding entrepreneurs' behaviours, personalities, and qualities, as well as examining their decision-making and actions in various business scenarios. Gartner (1988) suggested that researchers should observe entrepreneurs when launching new companies and meticulously delineate their duties and activities, focusing on behaviour rather than traits and emphasising actions over entrepreneur characteristics in new company launches. Nonetheless, Shaver and Scott (1991) noted that it could be challenging to completely ignore the personality concept as several aspects, including risk-taking, self-efficacy, and motivation, may have a big influence on an entrepreneur's success. Hence, there were limitations to this approach, which led to a clear shift from a behaviourist to an intellectual perspective (Good & Brophy, 1990), which took into account unobservable actions and ideas about perceptions and intentions. The fundamental causes of entrepreneurial activity might not be entirely explained by the behaviour-orientation approach. Although it might shed light on how and what entrepreneurs do, it may not reveal the fundamental motivations or cognitive processes that underlie entrepreneurial activities. The situational aspects, such as the entrepreneur's personal circumstances, financial resources, and social support, that have a substantial influence on their behaviour were not taken into account by the behaviour approach.

3.3.3 Entrepreneur: Cognitive Process Perspective

According to the cognitive process perspective, the entrepreneurial process is viewed as a sequence of mental activities involved in spotting and seizing opportunities. This approach emphasises how the cognitive processes of the entrepreneur, such as knowledge, perception, decision-making, and innovativeness, shape their actions and results. It assumes that individuals' beliefs, values, and attitudes towards entrepreneurship influence their entrepreneurial behaviour. Further, it aims to

comprehend how business owners process information, develop judgements, and take actions based on their attitudes and beliefs.

The cognitive approach emphasises entrepreneurial perception rather than personality (Shaver & Scott, 1991), focusing on affective judgement and cognitive reasoning. Entrepreneurs use emotional reactions, feelings, attitudes, and perceptual abilities to decide whether to execute an action, contrasting trait approaches (Sivarajah & Achchuthan, 2013).

The cognitive process approach is widely recognised as the best way to examine students' entrepreneurial intentions since it provides a thorough understanding of the mental processes that encourage them to make entrepreneurial decisions. This approach recognises that a number of cognitive functions, including perception, creativity, knowledge, and decision-making, contribute to the development of entrepreneurial aspirations and that these functions may be influenced by both individual and contextual factors. An individual's entrepreneurial intention is shaped by a range of cognitive processes that may be influenced by both personal and environmental conditions. The cognitive process approach aims to understand why only some individuals become entrepreneurs despite having equal or greater competence. It posits that entrepreneurs have thought processes and decision-making methods, which can help researchers understand why some individuals are more entrepreneurially inclined than others. Using a cognitive approach helps to better comprehend entrepreneurship.

In summary, the aforementioned discussions highlight the progression of entrepreneurship studies from the trait approach to the behaviour approach and subsequently to the cognitive approach (Sivarajah & Achchuthan, 2013). The trait approach focused on identifying personal characteristics and traits associated with entrepreneurial success. As research progressed, there was a shift in focus towards the behaviour approach, which examined entrepreneurs' actions and behaviours in various business contexts. Later, the cognitive approach was developed, which examines cognitive processes, thinking patterns, and environmental factors influencing entrepreneurial behaviour. Studies of entrepreneurial intention can be based on trait, behavioural, or cognitive approaches, as each offers a distinct view of the antecedents

of entrepreneurial intention. In order to have a thorough knowledge of entrepreneurial intention, integrating insights from all three approaches is required.

3.4 Personality Trait Theories

Personality Trait theories are psychological frameworks that seek to understand and categorize individual differences in personality based on identifiable traits. These theories propose that people possess consistent patterns of behaviour, thoughts, and emotions, which can be organized into distinct traits. In the present study, prominent theories such as the N-ach theory, Schumpeter's innovation theory, effectuation theory, and risk-taking theories were examined. The aim was to gain a comprehensive understanding of how these factors shape and define individual behaviour, motivation, and decision-making processes.

3.4.1 McClelland's The Need for Achievement (N-Ach) Theory

The need for achievement theory (N-Ach) is one of the most popular theories of entrepreneurship and has a substantial effect on entrepreneurial intention (Dinis et al., 2013). The Need for Achievement (N-Ach) theory, developed by American psychologist David McClelland in the 1950s, suggests that people are driven by a desire to achieve, outperform others, and perform challenging activities. The theory emphasises how people's behaviour is influenced by their own goals and desire for success. Additionally, the theory asserts that strongly driven individuals work hard to succeed in their activities, while those with low needs may struggle. Further, the N-Ach theory can help explain why some entrepreneurs are more successful than others.

Individuals' needs for accomplishment may vary based on upbringing, socialisation, and cultural background. The N-Ach Theory implies that people with a strong desire for achievement are more likely to pursue challenging opportunities, set high standards, accept responsibility, and seek feedback to improve their performance. Moreover, people with ambition, motivation, and competitiveness strive for social advancement and success (McClelland, 1961). In addition, they are self-assured, resilient, and have a strong desire to succeed and conquer challenges (Zhuang et al., 2022). Further, these traits are particularly beneficial in entrepreneurship, where individuals must be self-motivated, goal-oriented, and willing to take risks.

Entrepreneurs are defined by their need for achievement, and a society with high levels of satisfaction is more likely to foster entrepreneurship. The N-Ach theory suggests that the desire for success is a fundamental human motivation that influences behaviour and attitudes. Furthermore, understanding an individual's need for achievement can predict their behaviour and performance (Kusumawijaya, 2019). McClelland (1961) suggests that individuals with a higher need for achievement have a stronger drive for success, increasing their likelihood of starting their own business.

The n-Ach Theory can be useful in entrepreneurial intention-based research by providing a framework for understanding how individual motivation influences entrepreneurial choices. High-need achievers are more persistent in failure situations, willing to take calculated chances, and more likely to learn from their failures. By studying the importance of motivation in entrepreneurship, researchers and policymakers can design programmes and interventions that better support and encourage entrepreneurial activity.

3.4.2 Schumpeter's Theory of Innovation

Schumpeter's theory of innovation, developed by Austrian economist Joseph Schumpeter in the early 20th century, emphasizes the importance of entrepreneurship in stimulating innovation and economic progress. Schumpeter's theory characterised Entrepreneurship as "creative destruction and innovation", focusing on creating new opportunities in goods, processes, markets, sources of supply, and enterprises. Entrepreneurs are innovators who propose new goods, methods, and technologies that disrupt current markets and establish new ones. Schumpeter's theory highlights the significance of entrepreneurs in bringing about innovation, which is seen as a crucial engine of economic progress. Drucker (1985) supports this concept, stating that innovation is the key instrument of entrepreneurship. Moreover, innovation is the deliberate pursuit of changes, such as the potential for new markets, goods, or ideas, and the systematic search for new opportunities, such as new products, services, or concepts (Utsch & Rauch, 2000). Entrepreneurs who innovated exploited market imperfections, which led to economic shifts (Schumpeter, 1934).

3.4.3 Sarasvathy's Effectuation Theory

The effectuation theory developed by Sarasvathy (2001) looks at how businesspeople approach and react to new opportunities. This theory proposes that entrepreneurs launch new businesses through a process known as effectuation, which entails defining realistic objectives, utilising available resources, and developing stakeholder networks. This idea contends that innovation results from a combination of conscious activity and accidental discovery and highlights the value of experimenting, learning, and adaptability in the entrepreneurial process. Effectuation theory offers a valuable basis for understanding how entrepreneurs behave and think during the initial stages of starting a new business. It emphasises the significance of using a proactive, flexible, and collaborative approach to entrepreneurship rather than relying on a predictive approach. Effectuation theory provides an insightful perspective for comprehending how business owners approach the process of launching a new firm. By applying this theory to entrepreneurial intention-based studies, the researchers can gain insights into the variables that influence entrepreneurial behaviour.

Innovation theory and effectuation theory can be valuable paradigms for comprehending the function of innovation in entrepreneurship and determining a person's intention to pursue an entrepreneurial career. Moreover, these theories can aid researchers in identifying individuals who are most inclined to pursue entrepreneurial opportunities by understanding their traits of creativity and innovation. Being innovative is a crucial trait of an entrepreneur since it demonstrates the way individuals approach looking for new opportunities. As a result, the present study included innovativeness in its conceptual model as an entrepreneurial trait.

3.4.4 Risk-taking Propensity Theories

Risk-taking propensity theories in the context of entrepreneurship can assist in explaining why some people are more inclined to launch their firm and accept the risks involved, while others could be less likely to seek entrepreneurship and be more risk-averse. The Personality theory suggests that those who exhibit high degrees of impulsivity or thrill-seeking may be more inclined to take on the risks associated with starting their own business. Similarly, cognitive theory contends that people's propensity to take risks may be influenced by how they perceive and evaluate risk.

People could be more inclined to take risks if they think the risks are not as serious or if they place more emphasis on the potential rewards of engaging in risky behaviour. According to the prospect theory, individuals are more inclined to accept risks when the potential rewards outweigh the potential downsides. So, an investor or entrepreneur is more likely to take risks if he or she presumes the potential gain is greater than the possible risk.

Understanding the importance of risk-taking capability in entrepreneurial intention-based research is crucial for identifying individuals with a higher chance of success and developing policies to encourage and support entrepreneurship. Personal characteristics, such as risk-taking propensity, influence people's intentions to pursue entrepreneurship. However, risk-taking is not the only factor influencing entrepreneurial inclinations. Personal and environmental factors also influence an individual's desire to pursue entrepreneurship. Risk-taking must be balanced with other essential elements like creativity, determination, and strategic thinking for success. As a result, the present study included risk-taking propensity in its conceptual model as an entrepreneurial trait.

3.5 Theories of Entrepreneurial Intention

Entrepreneurial intention theories are a set of theoretical models that explain why people choose to become entrepreneurs. Additionally, these theories argue that entrepreneurial intention is a crucial predictor of real entrepreneurial action and identify variables affecting a person's desire to establish and operate a business. Moreover, they are essential for understanding the cognitive and behavioural processes driving entrepreneurship. The Theory of Planned Behaviour (TPB), Shapero's Entrepreneurial Event Model Theory (EEM), and Social Cognitive Theory (SCT) are well-known theories of entrepreneurial intention. These theories suggest that a person's desire to start a business is influenced by personal, social, and environmental factors, such as attitudes, beliefs, values, self-efficacy, support networks, and access to resources.

3.5.1 Theory of Planned Behaviour (Ajzen, 1991)

The Theory of Planned Behaviour (TPB) is a psychological model that explains human behaviour by examining variables that influence a person's choice to engage

in a particular behaviour. Icek Ajzen's Theory of Planned Behaviour (TPB) (Ajzen, 1991) is an expansion of his prior work on the Theory of Reasoned Action (TRA), which he developed in collaboration with Martin Fishbein (Fishbein & Ajzen, 1975). TRA posits that a person's behaviour is governed by their intention to engage in an activity, which is influenced by their attitude and subjective norm. The TPB contains a further aspect, perceived behavioural control, which relates to a person's view of their capacity to accomplish the activity, whereas the TRA concentrates on the impact of attitudes and subjective standards in determining behaviour. According to TPB, a person's desire to engage in a behaviour is determined by their perceived behavioural control as well as their attitude and subjective norm.

3.5.1.1 Attitude Towards the Behaviour

Attitude towards behaviour is a crucial aspect of the Theory of Planned Behaviour. It refers to an individual's perception of activity, indicating their positive or negative thoughts. The TPB posits that a person's views on a behaviour impact their intention to engage in it. A person is more likely to have a higher intention to engage in an activity if they have a good attitude about it. In turn, this increases the likelihood that they'll really engage in the behaviour. In the context of entrepreneurship, attitude towards behaviour would relate to a person's opinion about beginning a new business, whether favourable or unfavourable. An individual is more likely to have a favourable attitude towards entrepreneurship if they have an outcome evaluation that values financial success highly and have the behavioural belief that establishing a firm would result in financial success. This implies that a person's positive attitude towards entrepreneurship is linked to the conviction that establishing a firm is a worthwhile effort and that the advantages of business outweigh the drawbacks and dangers.

3.5.1.2 Subjective Norms

Subjective norm is a person's social pressure to engage in or refrain from a specific behaviour, consisting of two key factors: normative beliefs and motivation to comply. A normative belief is a person's perception of whether important people in their life, such as friends, family, or coworkers, support or oppose the activity. And the desire to live up to these expectations serves as motivation for compliance. In the context of entrepreneurship, subjective norm refers to a person's perception of whether important

people, such as family, friends, or coworkers, approve or disapprove of establishing a new business. An individual may be more likely to have the intention to become an entrepreneur if they believe their family and friends support them in starting a new business and expect them to do so. Conversely, someone may be less likely to have plans to launch a new firm if their social network disapproves of entrepreneurship.

3.5.1.3 Perceived Behavioural Control

Perceived behaviour control (PBC) refers to a person's judgement of their ability to engage in a specific behaviour, influenced by their knowledge, skills, past experiences, and external factors like time constraints, financial backing, support networks, and the environment. In the context of entrepreneurship, PBC refers to a person's perception of their capacity to launch and manage a new firm successfully. When considering starting a new business, this perception may be influenced by their entrepreneurial expertise, experience, funding availability, and support from others. For those considering starting a business for the first time, perceived behaviour control plays a significant role in shaping their entrepreneurial intention. Empirical studies have shown that PBC is a strong predictor of entrepreneurial intention, with individuals more likely to have favourable intentions towards entrepreneurship if they believe they have control over the variables affecting their ability to launch and manage a new firm.

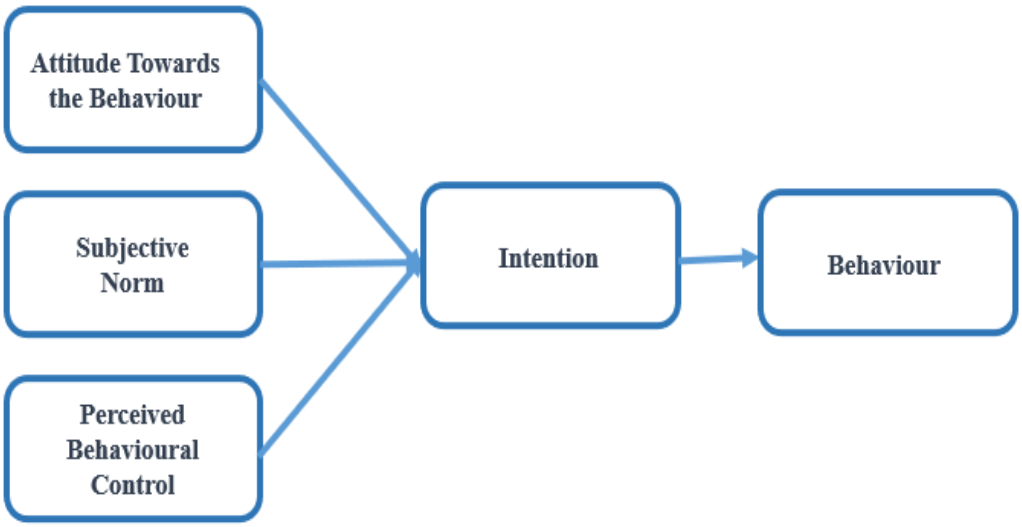
As PBC reflected a person's assessment of their own capacity to carry out a target behaviour, it overlapped with perceived self-efficacy as measured by Bandura in 1986 (Ajzen, 1987). Under the context of the theory of planned behaviour, self-efficacy measures were frequently used in studies in place of PBC and showed promising findings. As a result, the general consensus today is that PBC may be divided into two categories: perceived self-efficacy and perceived controllability, with perceived self-efficacy assessed in terms of perceived difficulty and perceived confidence. Entrepreneurial self-efficacy (ESE) measures a person's expectations for the performance of their business in accordance with their expertise. Many studies have proven that self-efficacy is a more accurate predictor of intentional behaviour than perceived behavioural control (Parkinson et al., 2017). Ajzen (2001) pointed out that, compared to the perceived behavioural control measure, self-efficacy was a more significant predictor of a person's intentions and eventual behaviour. The self-efficacy

variable, instead of the perceived behavioural control construct, could serve to enhance TPB's capacity for prediction (Parkinson et al., 2017).

Indeed, entrepreneurial intention is a multifaceted concept influenced by interconnected factors. And the TPB framework offers a useful approach for understanding and predicting this intention. A person is more likely to have a stronger intention to launch a new firm if they have positive attitudes towards entrepreneurship and perceive control over it. Similarly, if they believe that their social network supports and promotes entrepreneurship, they are more likely to have a higher intention to launch a new business. TPB is recognised as the most extensive, reliable, widely applied, and coherent approach to anticipating entrepreneurial intention (Engle et al., 2011; Krueger et al., 2000; Liñán & Chen, 2009; Luthje & Franke, 2003; Malebana, 2014). The TPB generalisation by Ajzen (1991) states that the stronger a person's intention to engage in the behaviour, the more favourable the attitude and subjective norm with respect to the behaviour, and the greater the perceived behaviour control. The TPB model is shown in Figure 3.1.

Figure 3.1

Theory of Planned Behaviour Model



Source: (Ajzen, 1991)

3.5.2 Entrepreneurial Event Model (Shapero & Sokol, 1982)

Entrepreneurial Event Theory (EET), also known as Entrepreneurial Event Model (EEM), is a widely used model for studying entrepreneurial intention. According to Shapero and Sokol (1982), the Entrepreneurial Event Model (EEM) conceptualizes the establishment of a company as a phenomenon influenced by the interplay of initiative, competency, control, relative autonomy, and risk. It focuses on understanding entrepreneurial behaviour and identifying the unique characteristics of entrepreneurs compared to others. According to Shapero and Sokol's (1982), a person's entrepreneurial behaviour depends on how desirable and feasible they believe entrepreneurship to be, as well as how likely they are to act. This suggests that people are far more likely to participate in entrepreneurial behaviour if they believe it to be desirable and practical, as well as if they have a strong desire to do so.

According to Shapero and Sokol's model of entrepreneurial event theory, behaviour is controlled by "inertia," which refers to a person's tendency to carry out an action until it is stopped by an outside force. The interruptions, which may be beneficial or detrimental, require the decision-makers to select the finest opportunity from a variety of options. The entrepreneurial event theory holds that intentions are not immediately impacted by external variables. According to Shapero and Sokol (1982), an event is what prompts a person to decide to start a business. A person will make plans based on three factors: perceived desirability, perceived feasibility, and the propensity to act.

3.5.2.1 Perceived Desirability

The capacity to launch a business is seen as attractive, according to the perception of desirability. It describes a person's attitude towards entrepreneurship based on both direct and indirect personal experience. According to Shapero and Sokol (1982), the social element affects personal intention through perceived desirability.

3.5.2.2 Perceived Feasibility

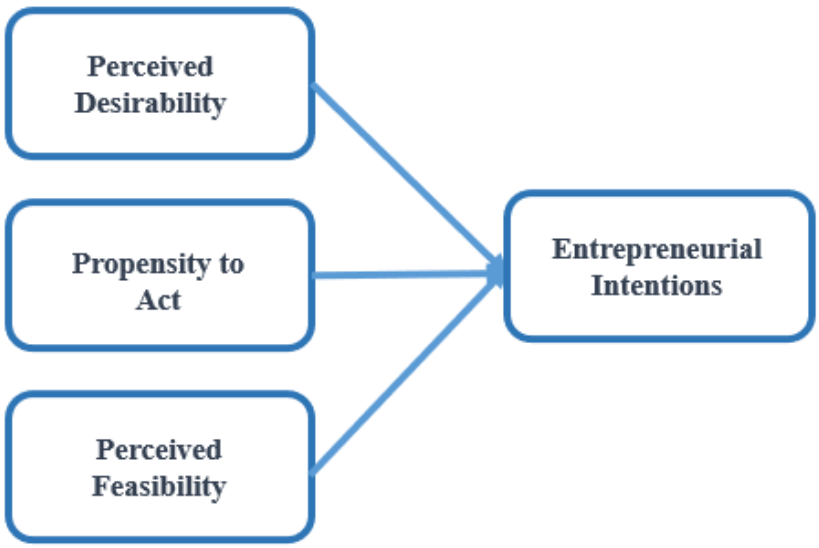
Perceived feasibility refers to the extent to which individuals believe they are personally capable of engaging in a particular behaviour (Shapero & Sokol, 1982). It is the level of confidence a person has in his or her competence to manage the newly established firm. The concept of perceived feasibility is the same as that of entrepreneurial self-efficacy.

3.5.2.3 Propensity to Act

Shapero and Sokol (1982) defined the propensity to act as the individual's propensity to carry out their decisions. This refers to a person's readiness to take action, which is affected by external factors.

In summary, the EEM states that an individual's response to an external occurrence is determined by how desirable and feasible they perceive it to be. In this way, desirability and feasibility play a role in how external circumstances indirectly affect intention. Moreover, some events or circumstances that function as precipitating or triggering factors known as displacements may have an effect on the establishment of entrepreneurial behaviour. Shapero and Sokol's (1982) EEM constructs are similar to Ajzen's TPB. The attitude towards behaviour and subjective norms of Ajzen's TPB are similar to the perceived desirability of EEM. And perceived behavioural control is what is explained as perceived feasibility in Shapero's model. Figure 3.2 depicts the entrepreneurial event model.

Figure 3.2
Entrepreneurial Event Model



Source: (Shapero & Sokol, 1982)

3.5.3 Social Cognitive Theory (Bandura, 1986)

Bandura's (1977a) Social Learning Theory (SLT), which was later developed into Social Cognitive Theory (SCT), asserts that learning takes place in a social setting

with a dynamic interplay between the individual, environment, and behaviour (Bandura, 1986). SCT focuses on how individuals learn through observation, cognitive functions, and social interactions. It highlights the significance of cognitive processes in human behaviour. allowing individuals to actively participate in their own growth and use their cognitive processes to interpret experiences. SCT emphasises social impact, external and internal reinforcement, and the unique way people learn and practise behaviours in a social context. It considers prior experiences, reinforcements, expectations, and expectancies that influence behaviour. Five constructs of SLT, along with an additional construct named as self-efficacy, constitute SCT. Reciprocal determinism, behavioural capability, observational learning, reinforcements, and expectations, along with self-efficacy, are the constructs of Social Cognitive Theory.

Social cognition theory is a widely used framework for understanding the cognitive and social elements that influence people's entrepreneurial intentions. Self-efficacy is a key component of SCT, as it affects people's perceptions of their ability to launch and manage a profitable firm. The connection between perceived barriers and entrepreneurial intention is mediated by self-efficacy. Strong self-efficacy can see obstacles as opportunities to conquer, while low self-efficacy may deter individuals from engaging in entrepreneurial activities. Higher self-efficacy can mitigate the negative effects of perceived barriers to entrepreneurial intention, but low self-efficacy might magnify those same negative effects. Moreover, social cognitive theory also emphasises the effect of role models and social support in influencing behaviour. Studies on entrepreneurial intention can examine how these elements affect people's perceptions and intentions in relation to entrepreneurship.

3.5.4 Self-Efficacy Theory (Bandura, 1977b)

The self-efficacy theory, developed by Albert Bandura, is a psychological theory that explains people's faith in their ability to accomplish tasks or achieve specific objectives. It is based on an individual's assessment of their ability to plan and execute actions necessary for specific performance outcomes. Self-efficacy is connected to decision-making, effort, perseverance, mental processes, and emotional responses to challenges (Bandura, 1977b). It is a crucial factor in determining human motivation, behaviour, and success. According to this theory, self-efficacy beliefs develop from a

complex interplay of cognitive, social, and environmental variables, influenced by prior experiences, social modelling, feedback, and physiological conditions.

Self-efficacy beliefs play a crucial role in shaping human behaviour and influencing entrepreneurial models. Moreover, Kickul and D'Intino (2005) stated that including the concept of self-efficacy might enhance several entrepreneurial models. Optimistic individuals tend to set higher goals and are more resilient. In addition, the self-system, consisting of attitudes, capacities, and cognitive capabilities, regulates how people perceive their environment and respond to different situations. People with strong self-efficacy beliefs are more likely to take on challenging tasks, persist in the face of challenges, and succeed. Conversely, those with poor self-efficacy beliefs shy away from stressful tasks and achieve less. Hence, self-efficacy is a key factor in goal achievement and commitment.

Entrepreneurial self-efficacy refers to an individual's assessment of their ability to be an entrepreneur and their confidence in carrying out entrepreneurship duties successfully (Boyd & Vozikis, 1994). Additionally, it provides a framework for understanding cognitive and motivational elements that influence people's intentions and behaviours in entrepreneurship. Furthermore, strong self-efficacy beliefs lead to a strong belief in their abilities, talents, and resources to succeed in entrepreneurship. whereas low self-efficacy beliefs may make starting a business difficult or outside their abilities, reducing their entrepreneurial mindset. Besides, individuals with high self-efficacy can prepare for both positive and negative scenarios since they are able to adapt their plans to changes in the environment and anticipate potential barriers to achieving their goals. In addition, empirical studies have proven that individuals who have high levels of self-efficacy related to entrepreneurship are more likely to have entrepreneurial intentions and to pursue entrepreneurial activities (Kickul & D'Intino, 2005; Krueger et al., 2000; Naktiyok et al., 2009; Zhao et al., 2005).

3.6 Models of Entrepreneurial Intention

Entrepreneurship may be viewed as an intentional behaviour in which a person's choice to start and run a firm is influenced by a variety of factors, both personal and environmental. Entrepreneurial intention models have been found to be an effective tool for forecasting entrepreneurial behaviour. These models offer a structured way to

look at the cognitive processes underpinning entrepreneurial intention as well as the social and psychological factors that affect a person's intention to launch a business. By analysing different entrepreneurial intention-based models, the researchers may gain a thorough grasp of the construct of entrepreneurial intention, including its antecedents, implications, and outcomes. Moreover, examining entrepreneurial intention-based models lays the groundwork for intention studies and reveals areas that require more exploration. In addition, intention models provide a chance to enhance the possibility of understanding and forecasting entrepreneurship (Krueger et al., 2000). The next section details various intention-based models provided by various scholars over time:

3.6.1 Entrepreneurial Intention Model (Bird, 1988)

Bird (1988) developed the Entrepreneurial Intention Model (EIM) based on cognitive theory to understand human behaviour. EIM, developed after interacting with 20 entrepreneurs, predicts entrepreneurial intention through personal and environmental characteristics. On the personal level, the model takes into account an individual's prior experiences, personalities, and skills, which collectively influence their inclination towards entrepreneurship. Those with previous entrepreneurial experiences may be more likely to consider starting their own ventures, while specific personality traits, such as risk-taking propensity and self-efficacy, can also play a crucial role in shaping one's intention.

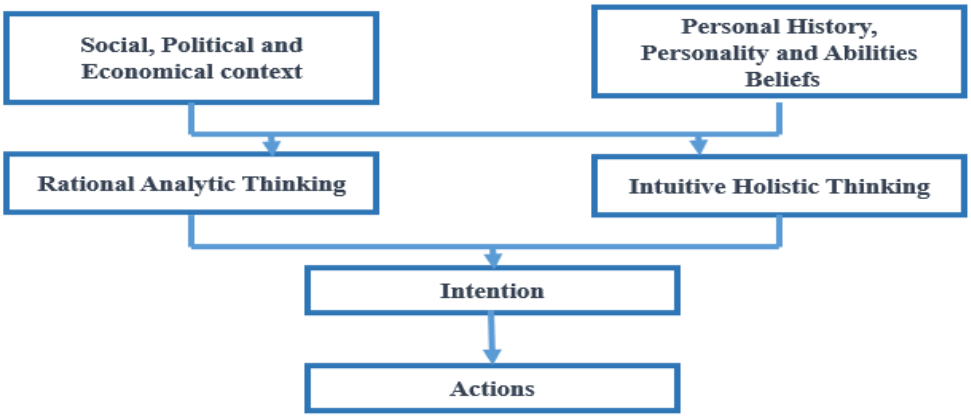
At the contextual level, EIM acknowledges the impact of external factors like social, political, and economic conditions. Market shifts and government policies can significantly affect the entrepreneurial landscape, either encouraging or discouraging potential entrepreneurs. Favourable economic conditions or supportive entrepreneurial ecosystems can be instrumental in promoting entrepreneurial intentions.

EIM also recognizes the role of background variables, which contribute to the cognitive process underlying entrepreneurial intentions. Rational thought processes, influenced by factors like education and experience, can lead individuals to evaluate the potential benefits and risks of entrepreneurship systematically. On the other hand, intuitive thought processes, shaped by creativity and imagination, may drive

individuals towards novel and innovative business ideas. Furthermore, EIM offers insight into the creative process of venture formation and can be studied in conjunction with theories of leadership, organisational development, and organisational theory. The entrepreneurial intention model developed by Bird (1988) is shown in Figure 3.3.

Figure 3.3

Entrepreneurial Intention Model



Source: Adapted from (Boyd & Vozikis, 1994)

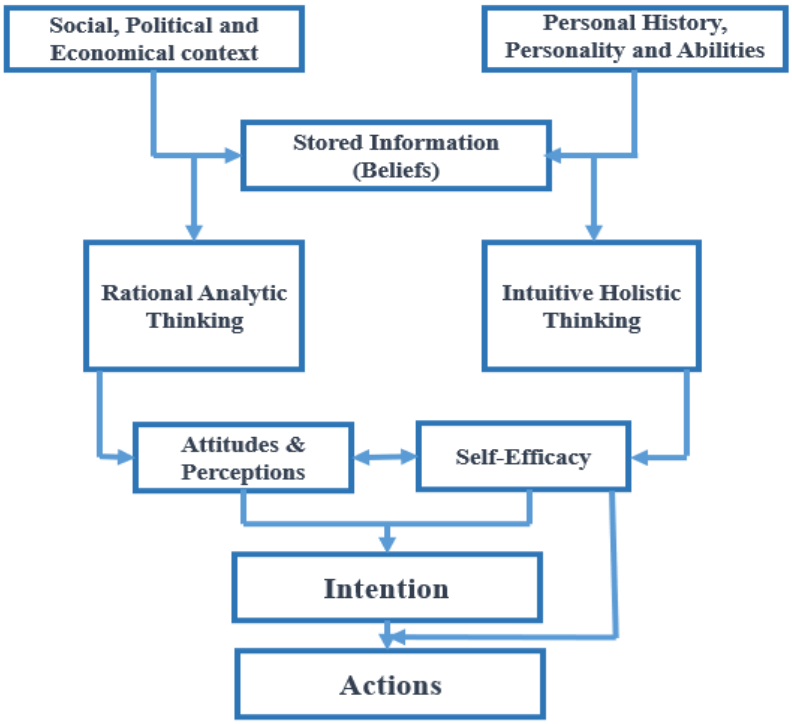
3.6.2 Revised Entrepreneurial Intention Model, including Self-Efficacy (Boyd & Vozikis, 1994)

Boyd and Vozikis (1994) added the idea of self-efficacy belief to Bird's (1988) EIM model. A person's self-efficacy relates to their confidence in their ability to carry out the behaviours required to achieve particular performance goals (Bandura, 1986). Self-efficacy is the belief that one can exert control over their own drive, conduct, and society. Moreover, self-efficacy is crucial to predicting entrepreneurial intention and behaviour. The addition of the self-efficacy construct sheds further light on how intention develops during the cognitive process (Boyd & Vozikis, 1994). The social, political, and financial elements that affect entrepreneurship include factors like market shifts, conservative government policies, and displacement (Bird, 1988). Both analytical and intuitive thinking help further shape entrepreneurial intentions. Furthermore, the revised model places equal weight on intuitive, holistic thinking and logical, analytical reasoning for determining entrepreneurial intention. Self-efficacy is generated from intuitive-holistic thinking, whereas one's attitude towards goal-

directed behaviour is developed from rational-analytical thinking. Self-efficacy is a by-product of cognitive thought processes, and it mediates the connection between entrepreneurial goals and deeds (Boyd & Vozikis, 1994). Thus, entrepreneurial intentions and actions are influenced by self-efficacy, which has been characterised as a person's confidence in their ability to execute a task. Figure 3.4 depicts the revised model of Bird's (1988) Entrepreneurial Intention Model developed by Boyd and Vozikis (1994).

Figure 3.4

Revised Model of Entrepreneurial Intention Model



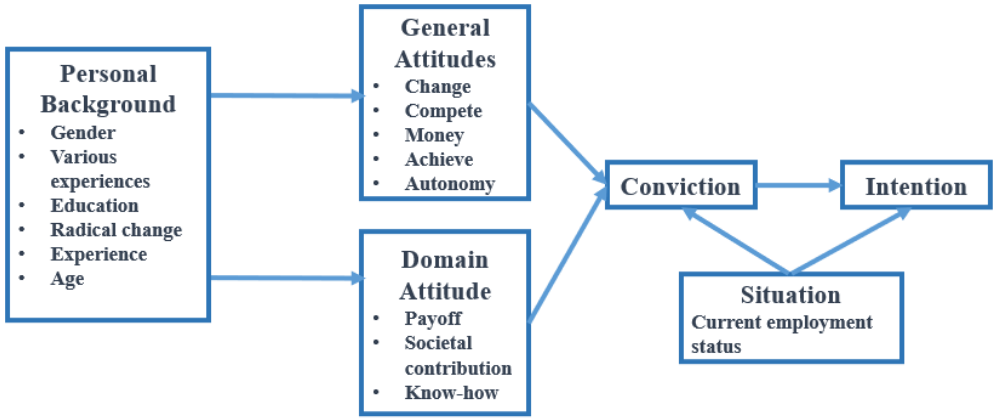
Source: (Boyd & Vozikis, 1994)

3.6.3 Economic Psychological Model (Davidsson, 1995)

Davidsson (1995) developed an Economic Psychological Model (EPM) combining economic and psychological influences on entrepreneurial intention. Davidsson (1995) synthesised earlier models to capture students' entrepreneurial intentions, focusing on conviction as the key driver, a significant change from earlier models. According to EPM, personal backgrounds are believed to influence both general and domain attitudes. While domain attitudes are more explicit attitudes concerning

entrepreneurship, generic attitudes refer to broad psychological tendencies. One's view that entrepreneurship is suitable can be strengthened by both general and domain-specific attitudes. General and domain attitudes contributed greatly to the explanation of conviction, which in turn contributed significantly to intention (Davidsson, 1995). The economic psychological model developed by Davidsson (1995) is shown in Figure 3.5.

Figure 3.5
Economic Psychological Model



Source: (Davidsson, 1995)

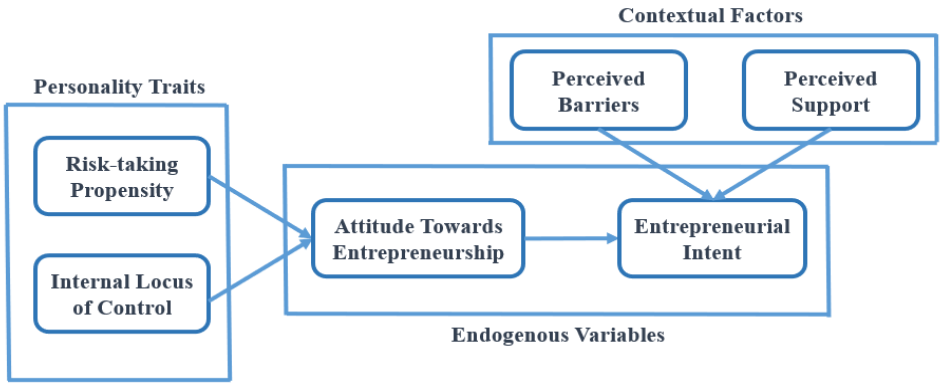
3.6.4 Structural Model of Entrepreneurial Intention (Lüthje & Franke, 2003)

The structural model of entrepreneurial intention (SMEI) developed by Lüthje and Franke (2003) was built on prior studies by Shapero and Sokol (1982) and Ajzen (1991), and it also incorporates additional factors that might have an impact on entrepreneurial intentions. Lüthje and Franke (2003) evaluated a covariance structure model among MIT engineering students to assess the impact of personal characteristics and perceptions of the surrounding conditions on firm launch. The study found that both individual and contextual factors were significant predictors of aspirations to start a business. Hence, this model is also named the Lüthje and Franke Model (LFM). SMEI suggests that entrepreneurial intentions are directly impacted by perceptions of contextual variables consisting of support and impediments. Lüthje and Franke (2003) considered that the environment is to blame for the imperfect attitude-intention link. Despite having a generally negative attitude towards entrepreneurship, a student may be eager to launch a business if he believes that the conditions are ideal.

On the other hand, graduates who are enthusiastic about starting new businesses could decide against doing so because they have a poor impression of key environmental elements. According to the model, personality traits have a significant influence on one's attitude towards self-employment. It is believed that certain personality traits, such as a predisposition for taking risks and an internal locus of control, have an indirect impact on an individual's desire to start a new firm by influencing their entrepreneurial attitudes.

SMEI, a relatively recent technique, has been utilised in just a few studies (Franke and Lüthje, 2004; Kristiansen and Indarti, 2004; Schwarz et al., 2009), but provides a wide framework for examining entrepreneurial intention antecedents. The present study attempts to enhance understanding of the factors that influence entrepreneurial intention by employing the SMEI. The structural model of entrepreneurial intention developed by Lüthje and Franke (2003) is shown in Figure 3.6.

Figure 3.6
Structural Model of Entrepreneurial Intention



Source: (Lüthje & Franke, 2003)

3.6.5 Entrepreneurial Support Model (Turker & Selcuk, 2009)

The influence of contextual variables on entrepreneurial intention is a key aspect of the Entrepreneurial Support Model (ESM) developed by Turker and Selcuk (2009). The approach takes entrepreneurial intention into account while assessing the perception of educational, relational, and structural supports. Turker and Selcuk (2009) used a process-based methodology to analyse students' entrepreneurial intentions. Moreover, the entrepreneurial support model is a theoretical framework that contends that numerous social, psychological, and environmental elements can

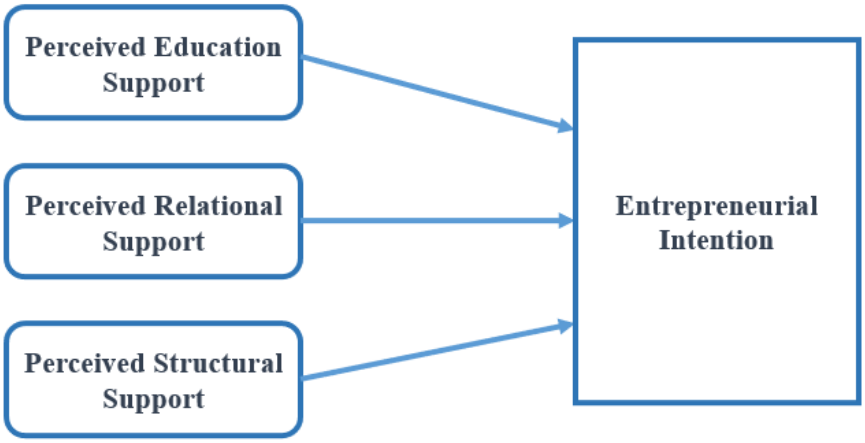
have an impact on entrepreneurial intention. However, entrepreneurs are more likely to be successful in their endeavours if they possess strong personal traits, are part of social networks that are encouraging, and have access to efficient support systems. Further, an individual's intention to become an entrepreneur can be affected by a sense of support in the areas of education, relationships, and structures.

Perceived educational support refers to the extent to which people believe they have access to training and educational opportunities that can help them get the abilities and information required to launch and run a business. Those who believe they have access to educational assistance are more likely to have greater levels of entrepreneurial ambition, as they may believe they can establish and operate a firm effectively. The extent to which a person believes they have access to social support networks that may offer them advice, direction, and emotional support is referred to as perceived relational support. People who believe they have excellent relationship support feel more secure and supported in their efforts to establish and run a business. Perceived structural support refers to the degree to which individuals feel they can obtain the structural resources, such as money, physical infrastructure, and legal aid, to establish a firm. People feel more confident that they have the resources needed to effectively launch and operate a firm when they believe they have access to strong structural support.

The entrepreneurial support model provides a useful framework for understanding the environmental support factors that may impact entrepreneurship and establishing effective support programmes and policies to assist entrepreneurs in their success. By integrating elements of the entrepreneurial support model, the present study aims to examine how perceived environmental support influences the intentions of higher education students in Kerala to pursue entrepreneurship. Understanding the link between environmental support and entrepreneurial intentions can offer valuable insights for policymakers, educators, and other stakeholders in developing targeted interventions and initiatives to foster an entrepreneurial culture. Figure 3.7 shows the components of the entrepreneurial support model.

Figure 3.7

Entrepreneurial Support Model



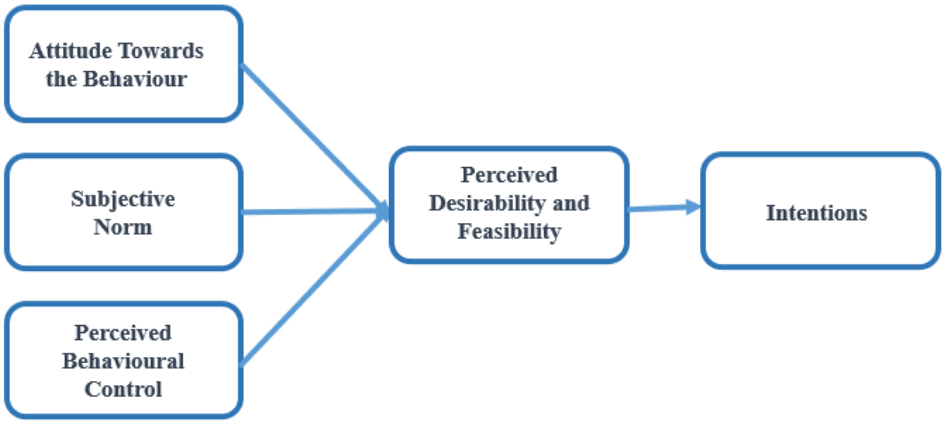
Source: (Turker & Selcuk, 2009).

3.6.6 Integrated Model of Entrepreneurial Intention (Lakovleva & Kolvereid, 2009)

The Integrated Model of Entrepreneurial Intention developed by Lakovleva and Kolvereid (2009) made an effort to combine elements of the two models, Shapero and Sokol (1982) and Ajzen (1991). Ajzen's perceived behavioural control and attitude and Shapero's perceived desire and feasibility are thought to be comparable since they both support the same idea, i.e., willingness and capacity. Moreover, desirability and feasibility somewhat regulate the effect of attitudes and subjective norms while totally mediating the influence of perceived behavioural control on entrepreneurial intentions. According to Lakovleva and Kolvereid (2009), desirability and feasibility play a role in an individual's entrepreneurial intention, and further, attitude, subjective norm, and perceived behavioural control all play a role in perceived desirability and feasibility. However, the integrated model of entrepreneurial intention, which incorporates attitudes, subjective norms, attractiveness, and feasibility, appears to be capable of explaining the factors contributing to entrepreneurial intentions. As a result, it has been proven that Shapero's entrepreneurial event models and the concept of planned behaviour may be successfully merged into a single model. Figure 3.8 shows the integrated model of entrepreneurial intention (Lakovleva & Kolvereid, 2009).

Figure 3.8

Integrated Model of Entrepreneurial Intention



Source: (Lakovleva & Kolvereid, 2009)

3.7 A Synthesis of Entrepreneurial Intention Theories and Models

Models of entrepreneurial intention provide a framework for comprehending the factors that influence people's choices to establish a business. Hence, it is essential to look into a variety of theories and models of entrepreneurial intention to comprehend the factors that influence a person's decision to start a business. Entrepreneurial models shed light on how individual traits, behavioural elements, environmental circumstances, and knowledge and experience in the entrepreneurial field influence entrepreneurial intention. Further, by synthesising various entrepreneurship theories and models, researchers can better comprehend the complex processes that lead to the development of entrepreneurial intentions. Additionally, researchers can find points of agreement and disagreement and create a more thorough grasp of the entrepreneurial process by comparing and evaluating various models. There are several intention theories and models as an outcome of entrepreneurship studies. These overlapping theories of entrepreneurial purpose emphasise the pre-entrepreneurial event. The three models—EEM (Shapero & Sokol, 1982), EIM (Bird, 1988), and TPB model (Ajzen, 1991)—serve as the primary models for guiding the development of entrepreneurial intention. Those three models serve as the foundation for other, subsequently established models. Self-efficacy was added as a new component to the EIM by Boyd and Vozikis (1994). Moreover, Davidsson (1995) created the economic-psychological model emphasising individual attitudes, self-efficacy, and situational circumstances based on the findings of the EEM, updated

EIM, and TPB. Furthermore, Luthje and Franke (2003), who created the structural model of entrepreneurial intention, were intrigued by the findings on the impact of attitude on entrepreneurial intention.

Three primary models (EEM, EIM, and TPB) establish a theoretical framework for entrepreneurship studies, considering internal and external variables influencing entrepreneurial intention. EIM (Bird, 1988) emphasises the application of both logic and intuition. The notions of attitude, social norm, and perceived self-efficacy are not included in the entrepreneurial intention model of Bird (1988). Moreover, the TPB model (Ajzen, 1991) is the most often used to describe how a person's ambition to become an entrepreneur is affected by their attitudes about entrepreneurship, subjective and social values, and perceived behavioural control. Individuals are more likely to start their own enterprises if they have a positive attitude about entrepreneurship, feel pressure from society to do so, and think they have the resources and skills to do so. Additionally, it is worth noting that the key element of intention theory is self-efficacy, which essentially expresses a sense of behavioural control over an entrepreneurial action (Krueger et al., 2000). The core idea of the social cognitive theory is that people actively participate in social conduct by taking responsibility for their own actions and making it happen (Bandura, 1986). However, the terms self-efficacy, perceived behavioural control, and feasibility terms are used interchangeably in many of the intention models.

The key areas of emphasis for SMEI (Luthje & Franke, 2003) and EPM (Davidsson, 1995) are entrepreneurial attitude and external or situational elements. Both SMEI and EPM did not take into account the impact of societal norms on the development of entrepreneurial intentions. Moreover, SMEI does not offer any information regarding the effect of a person's impression of their capacity to engage in entrepreneurial behaviours. However, EIM (Bird, 1988), Revised EIM (Boyd &Vozikis, 1994), and SMEI (Luthje & Franke, 2003) consider personality traits and contextual factors in determining entrepreneurial intention. Personality traits are forces that have an indirect influence on intention through the attitudes they create. This is true because certain attitudes and perceptions regarding behaviours are captured by personality variables (Ajzen & Fishbein, 2005).

The three models, EEM (Shapero & Sokol, 1982), Revised EIM (Boyd &Vozikis, 1994), and TPB (Ajzen, 1991), exhibit consistency when taking into account the ideas of personal attitude or desirability and perceived ability to engage in entrepreneurial activity. The perceived desire of EEM, the attitudes of revised EIM, and the attitude towards the behaviour of TPB are used to characterise how people view entrepreneurship. Also, these three models use perceived feasibility, self-efficacy, or perceived behavioural control to explain how perceived capacity affects entrepreneurial intention.

The research paradigm employed in the present study was largely inspired by the Theory of Planned Behaviour (Ajzen, 1991), the Social Cognitive Theory (Bandura, 1986), the Self-Efficacy Theory (Bandura, 1977b), the Structural Model of Entrepreneurial Intention (Luthje & Franke, 2003), and the Entrepreneurial Support Model (Turker & Selcuk, 2009). By taking into account the above-mentioned theories and models, a conceptual model is developed to examine the direct and indirect effects of personality traits and contextual factors, including perceived support and barriers, on entrepreneurial intention, using entrepreneurial attitude, self-efficacy, and entrepreneurial motivation as mediating variables. The present study examined the entrepreneurial intention of students in Higher Education Institutions in Kerala at an early stage of their career decision-making process, which could be influenced by their perceptions of desirability and their confidence in their own ability to become self-employed in the future. All other factors were also important to consider since several studies have demonstrated their relevance in the development of entrepreneurial intention. Furthermore, the conceptual model of entrepreneurial intention used in the present study aims to give a thorough understanding of the elements that drive entrepreneurial intention by relying on many theoretical views and models. Moreover, it may promote the creation of evidence-based policies and initiatives that encourage entrepreneurship and support entrepreneurial growth.

The conceptual model proposed for the present study is depicted in Chapter 4, specifically in Figure 4.1.

3.8 Promotion of Innovation and Entrepreneurship in Higher Education Institutions in India

In today's economy, entrepreneurship is regarded as a factor of rising significance, and the success of the modern economy is heavily reliant on the role played by Higher Education Institutions (HEIs) in fostering student entrepreneurship. HEIs can provide courses that equip students with the knowledge, abilities, and resources needed to launch and expand their businesses. They can also give students access to mentors, networks, and other resources in addition to educational programmes. HEIs can also assist students in acquiring the attitude necessary to be successful entrepreneurs by encouraging an innovative and entrepreneurial culture. This involves fostering an atmosphere that rewards experimentation, risk-taking, and creativity. With internships, apprenticeships, and other hands-on learning opportunities, HEIs can provide students with the chance to obtain practical experience in a real-world corporate context. Additionally, HEIs should have a comprehensive and effective system for transforming research into inventions to encourage, inspire, and nurture young pupils.

In recent years, a number of government initiatives have been introduced to aid in the growth of HEIs' innovation and entrepreneurial ecosystems in India. The Ministry of Education, along with other central bodies such as the AICTE (All India Council for Technical Education) and UGC (University Grants Commission), has devised a variety of policies and programmes to encourage an environment for entrepreneurship and innovation in HEIs (Kandakatla et al., 2021). The Ministry of Education Innovation Cell (MIC), a department of the Indian government's Ministry of Education (MoE), is in charge of encouraging innovation and entrepreneurship and supporting the development of cutting-edge technologies, products, and services by students and faculty in HEIs across India. MIC offers a range of programmes and initiatives such as the Institution’s Innovation Council, Atal Ranking of Institutions on Innovation Achievements, Smart India Hackathon, Yukti-Innovative Repository, Innovation Ambassador Programme, Innovation Context, etc.

The Institution's Innovation Council (IIC), initiated in 2018, aims at creating, streamlining, and strengthening innovation and entrepreneurship in HEIs. The primary role of IIC is to engage a large number of faculty, students, and staff in various

innovation and entrepreneurship-related activities such as ideation, problem-solving, proof of concept development, design thinking, intellectual property rights, project filing, and management of pre-incubation and incubation stages, etc. Further, the IIC model is designed to address existing challenges in HEIs, such as a lack of coherence and synergy in resource mobilisation and deployment and underutilization of youths' creative potential (Kandakatla et al., 2021). Moreover, it integrates functionalities such as flexible calendar activities, a scoring and reward system, decentralising operations, progress monitoring, and incentive mechanisms through a digital platform (Kandakatla et al., 2021). The IIC network has expanded over the past four years to include 6,503 HEIs with more than 72,000 students and 50,000 faculty members, and it presently includes more than 9000 specialists from ecosystem enablers. Additionally, it is worth noting that IIC has emerged as a scalable and sustainable platform for encouraging innovation in HEIs, leading to India's 48th position in the Global Innovation Index (Kandakatla et al., 2021).

The Atal Ranking of Institutions on Innovation Achievements (ARIIA) is a major source of inspiration for many HEIs to encourage innovation and entrepreneurship. As part of ARIIA, all significant HEIs in India are ranked in accordance with criteria related to "Innovation and Entrepreneurship (I&E) Development". Besides, the ranking is based on various measurement indicators such as the formation of an I&E mindset, the integration of I&E into teaching and learning, the availability of facilities and infrastructure, the number of innovations developed, the number of startups established, external partners and collaborations, the development of intellectual property and commercialization, the average costs and revenue generated through I&E activities, and adherence and implementation of the National Innovation and Start-Up Policy (NISP) (Kandakatla et al., 2021). Furthermore, the ARIIA will focus on the quality of inventions and evaluate their impact on both a national and global level.

The Innovation Ambassador Training curriculum, an ICT-enabled training programme formulated by MIC, aims to retrain and upskill faculty members in innovation and entrepreneurship while also providing post-training engagements to assist the growth of the innovation and start-up ecosystem at HEIs. In addition, the Government of India's MoE launched YUKTI, the National Innovation Repository, in May 2020 to

promote an innovation culture at HEIs all over the country. Institutions can submit their best practises and innovations in a range of areas, such as social initiatives, governance, research, and teaching and learning. Moreover, the website provides a forum for organisations to connect and communicate, which promotes the development of new partnerships and initiatives. Besides, by soliciting concepts, inventions, and start-ups from students, alumni, teachers, staff, and entrepreneurs, IICs in HEIs will assist in developing an innovation repository. Additionally, IICs promote Innovation Context, a 360-degree experiential learning programme that aims to inspire staff and students to find creative solutions to a range of issues.

The Smart India Hackathon is a national-level competition that brings together learners, educators, business leaders, and mentors from various fields to work on real-life problems faced by government and industry organisations. Moreover, it gives students the chance to demonstrate their skills in technology, creativity, and novel concepts while focusing on agriculture, health, education, smart cities, and renewable energy.

In India, besides recent initiatives implemented by the Ministry of Education (MoE) to promote innovation and entrepreneurship in Higher Education Institutions (HEIs), there is active involvement from state, local, and various organisations to foster innovation and entrepreneurship among HEI students. The Government of India established the National Science and Technology Entrepreneurship Development Board (NSTEDB) in 1982 as an institutional framework to assist in the promotion of knowledge-driven and technologically-intensive firms. Besides, the Board aims to leverage Science and Technology interventions to help job seekers become job generators. It collaborates with HEIs in India to provide training, mentoring, and networking opportunities to students interested in entrepreneurship.

The Department of Science and Technology, Government of India, has developed the National Initiative for Developing and Harnessing Innovations (NIDHI) as an umbrella project to foster the transformation of ideas and inventions into prosperous enterprises, aiming to create an entrepreneurial environment driven by innovation for socioeconomic growth through wealth and employment creation. The NIDHI offers a variety of initiatives, including the Technology Business Incubator (TBI), Seed Support System, Accelerator, Promoting and Accelerating Young and Aspiring

Innovators and Startups (PRAYAS), etc. (Kandakatla et al., 2021). These initiatives are intended to assist entrepreneurs throughout their whole life cycle, starting from ideation. The business sector, academic, research, and development institutions, mentors, financial institutions, angel investors, venture capitalists, and numerous agencies and ministries are among the key stakeholders. Moreover, the NIDHI activities are executed via the nationwide network of Technology Business Incubators (TBIs), which are funded by NSTEDB. Apart from these initiatives, The Department of Science and Technology's (DST's) National Implementing and Monitoring Agency for Training (NIMAT) provides funding support to HEIs for I&E capacity-building programmes. In addition, a Scheme for Promotion of Innovation, Rural Industry, and Entrepreneurship (ASPIRE) was established by the Ministry of Small and Medium Enterprises to advance I&E through technology hubs and incubators.

All the above-mentioned initiatives are provided by the government and various agencies with the objective of instilling in the students an innovative and entrepreneurial mentality so they may continue to invent and be empowered to launch businesses after they graduate. Apart from the above-mentioned initiatives, there are many other government policies that support HEIs in developing entrepreneurial cultures.

3.8.1 National Innovation and Startup Policy 2019

The MoE's Innovation Cell and apex regulating organisations like the UGC and the AICTE have jointly designed the National Innovation and Startup Policy (NISP) 2019 for faculty and students to implement and adopt innovation and entrepreneurship activities in both technical and non-technical HEIs across the country. The NISP 2019 will help to transform the current demographic dividend into highly skilled technical labour capable of leading-edge research, innovation, and deep-tech entrepreneurship.

The policy aims to offer HEIs the tools they need to create, organise, and strengthen the campus innovation and entrepreneurial ecosystem. This will help them better utilise the potential of science, students' innovative problem-solving skills, and their entrepreneurial mindsets, as well as foster strong intra- and inter-institutional partnerships with ecosystem enablers and other stakeholders on a local, national, and global scale. The NISP highlights a number of significant features to encourage and

assist innovation, technology commercialization, and startup in university settings. It outlines a campus-wide pre-incubation and incubation support system, offers rewards to staff and students that engage in innovation and startup activities, and recommends systems for intellectual property ownership, income sharing, and equity sharing between institutions and incubated start-ups. These policies are crucial and highly significant for innovators, entrepreneurs, and startup founders in fast-developing economies like India as they seek to commercialise their innovations and grow their businesses from inception to scale.

The NISP established a framework for HEIs and focuses on a number of crucial and essential areas of encouraging and supporting innovation, technology commercialization, and startups in academic settings through:

- Establishing entrepreneurial channels and innovation pipelines
- Enhancing organisational capability, human resources, and financial incentives to encourage and support creative and entrepreneurial endeavours
- Business ties, co-creation, collaboration, and information exchange take place inside the institution and among ecosystem enablers at the regional and national levels.
- Encouraging academics, staff, and students to pursue entrepreneurship and startup endeavours
- Establishment of facilities in HEIs and assistance for incubation and pre-incubation
- Intellectual property ownership rights for technology transfer and development in HEIs
- Interventions in education and pedagogy for the growth of innovation and entrepreneurship
- Impact analysis of entrepreneurial performance

Major Highlighting Features of NISP 2019

- Establishment of an innovation fund to assist new initiatives and businesses with a minimum of 1% of the institution's overall budget
- Credit for working on unique prototypes and business plans.
- A semester or year of academic break to focus on their startup.

- 2%–9.5% of an incubation institution's equity or ownership in a startup or firm
- Complete ownership of the Intellectual Property Rights (IPR) if inventors do not use the facilities or resources of the institute.
- The institutions provide services through different models, which include receiving equity in exchange, a fee-based system, or a zero-payment model.

3.8.2 Innovation and Entrepreneurship in Indian Higher Education Under the National Education Policy (NEP), 2020

The NEP 2020 outlines a policy direction to introduce the startup movement in HEIs in a structured and formal manner, with the aim of fostering innovation and entrepreneurship among young graduates. According to NEP 2020, the purpose of higher education goes beyond generating opportunities for individual employment and lays the groundwork for knowledge creation and innovation that will sustain a booming national economy. Further, NEP 2020 suggests that HEIs establish start-up incubation centres to concentrate on research and innovation, either with assistance from the government or in collaboration with industries. This approach enables graduates to transform their ideas and research into successful ventures that can offer solutions to India's varied socioeconomic challenges. Besides, NEP 2020 provides opportunities for research-based specialisation, internships with local enterprises, and practical learning to encourage entrepreneurship and transform India into a worldwide economic and information superpower.

3.9 Initiatives Driving Innovation and Entrepreneurship Promotion in Higher Education Institutions in Kerala

Higher Education Institutions in Kerala are actively fostering entrepreneurship and giving budding entrepreneurs the resources, they need to be successful. This includes creating Entrepreneurship Development Clubs and Cells, Innovation and Entrepreneurship Development Centres (IEDCs), workshops and programmes for entrepreneurship development, and facilitating incubation and acceleration programmes. These best practises help to create a vibrant entrepreneurial ecosystem in the State and are supported by both government and non-government organisations.

The Kerala government came out with its startup initiatives through the Kerala Startup Mission (KSUM) by creating and implementing policies aimed at building a thriving

startup ecosystem in the state. KSUM proposed the idea of the IEDC in 2014 to cultivate a culture of innovation and entrepreneurship in educational institutions and to provide institutional mechanisms to support technical and non-technical entrepreneurs. IEDCs set up in engineering, management, polytechnics, and arts and science colleges act as mini-incubators that allow students to create prototypes while remaining enrolled in classes. IEDCs promote the college as a centre of Innovation by regularly organising events and activities in the areas of innovation, technology, and entrepreneurship. KSUM hosts a number of events, such as the Faculty Development Programme, the INSPIRE programme, which informs students about the different schemes and assistance that KSUM offers for innovators, the WHYHACK hackathon, where participants compete to find the greatest technological solutions to the most serious social issues, the IGNITE Fund, which supports student innovators through alumni assistance, the I-Talk series, Idea Fest, etc. Moreover, IEDC actively strives to develop the skill sets of its students by hosting pertinent workshops and seminars. Additionally, IEDCs create a spark for students' innovative potential and inspire them to turn their ideas into reality through the Future Lab and Fab Labs. Besides, students are encouraged to prototype their original ideas without fear of failure. Additionally, it is worth noting that more than 300 student startups have been founded as a result of the establishment of IEDCs in HEIs, and around 2.59 million rupees have been allocated to more than 7500 idea support projects. Furthermore, 22 mini-fab labs have been set up.

In addition, the Young Innovators Programme (YIP), a specially developed project under the Kerala Development and Innovation Strategy Council (K-DISC), provides aspiring innovators with the resources they need to develop unique products, services, or business models that more effectively serve the unmet needs, implicit expectations, and changing needs of society. Besides, the Government of India's Department of Science and Technology launched the Technology Business Incubator (TBI) as a programme to support technology-based entrepreneurship. TBI has set up incubation centres in many engineering colleges in Kerala to assist student entrepreneurs in technology-related sectors.

The Kerala Institute of Entrepreneurship Development (KIED), under the Department of Industries and Commerce, Government of Kerala, offers prospective entrepreneurs

specialised assistance for organising, launching, maintaining, reviving, and expanding their innovative ventures. The Government of Kerala, through its Department of Industries and Commerce, established Entrepreneurship Development Clubs (EDC) in various colleges in the State to encourage and foster student entrepreneurship. The EDC collaborates with many HEIs in Kerala to provide entrepreneurship training and support to students. In addition, it holds workshops, seminars, and training sessions on a variety of entrepreneurship-related topics. Besides, the EDC offers mentoring and training to students interested in creating their own businesses. It has contributed to the expansion and improvement of the entrepreneurial ecosystem in the state by assisting several students in converting their ideas into profitable businesses. A grant of Rs. 20,000 would be given to registered EDCs to assist them in running programmes that encourage entrepreneurial traits and cultivate student ability in entrepreneurship. In addition, the Department of Industries and Commerce, Government of Kerala, also operates the Industry Research Linkage Scheme to assist the research projects of Research and Development institutes and technical institutions. EDC focuses on moulding the right entrepreneurs, and the Industry Research Linkage Scheme aims to shape the appropriate technology. Linking both schemes can give the state's industrialization process a competitive edge.

With the above-discussed comprehensive efforts, Kerala has successfully nurtured a culture of entrepreneurship, empowering individuals to explore their innovative ideas, establish their businesses, generate job opportunities, and contribute to the economic growth of the state. The present study aims to examine whether these comprehensive efforts moderate the intention to pursue entrepreneurship among the students of HEIs in Kerala.

In conclusion, entrepreneurship is a dynamic process that entails identifying opportunities, mobilising resources, and generating value through unique business initiatives. Moreover, intention-based theories and models provide insights into the factors influencing entrepreneurial intentions. A significant effort is being made in India, notably in the state of Kerala, to promote innovation and entrepreneurship in HEIs. These initiatives seek to advance socioeconomic development, create wealth, and generate employment opportunities, ultimately paving the way for a successful future.

CHAPTER 4

RESEARCH METHODOLOGY

Contents

4.1 Introduction

The primary focus of the present chapter is to highlight the methodology employed to ensure the smooth execution of the research work. The research methodology chapter presents a comprehensive overview of the research process, outlining the research problem, research questions, major hypotheses, scope of the study, research methodology, design of the questionnaire, conceptual framework, details of the pilot study, data analysis tools, operational definitions, and limitations. The current chapter serves as a guide for the research design and methodology employed in the study.

4.2 Research Problem

Unemployment and the exodus of talented workers are the most significant challenges facing emerging nations. Global unemployment is projected to reach 208 million people in 2023, with an unemployment rate of 5.8%, as per World Employment and Social Outlook: Trends 2023, published by the ILO (Ventura, 2023). India, one of the most populous countries in the world, has a thriving economy. Kerala, the 13th most populous Indian state, is blessed with an educated population and a high literacy rate. At the same time, Kerala has considerable unemployed youth, and a major portion of the youth live or work outside the state due to a lack of employment opportunities within the state. According to the Periodic Labour Force Survey (PLFS), which was performed from July 2020 to June 2021, Kerala has a rate of unemployment for those aged 15 and over of 10.1%, as against the all-India level of 4.2 percent (Kerala State

Planning Board, 2023a). Youth constitute around 23 percent of the population in Kerala (Kerala State Planning Board, 2023a). As per PLFS 2020–2021, Kerala has a high percentage of youth unemployment of 33.0% in rural regions and 34.5% in urban areas, with female unemployment in rural and urban areas of 50.6% and 51.8%, respectively. Men experience unemployment at a rate of 24.7% in rural regions and 25.9% in urban areas (Kerala State Planning Board, 2023a). The increasing trend of unemployment tends to drive migration to other states as well as other countries.

When considering India's migration statistics, India has one of the greatest emigration populations in the world, with nearly 18 million people residing overseas (McAuliffe & Triandafyllidou, 2022). The Kerala Migration Survey 2018 reported that there are 21,21,887 emigrants from Kerala living abroad (Rajan & Zachariah, 2019). The brain drain is raising concerns due to the departure of highly skilled individuals and a decline in natality (Tomić & Taylor, 2018). There is now a sense of urgency to address the problem and develop solutions that can reduce unemployment and reverse brain drain trends. The best strategy for dealing with this problem is to encourage entrepreneurship to empower the younger generation.

Entrepreneurship has the potential to reduce unemployment and encourage migrants to return to their home states. Educational institutions, the government, and local bodies are investing in entrepreneurship development among the youth in India. Despite government support programmes, Indians have viewed entrepreneurship as a secondary career option. The GEM (2021) revealed that India ranks 4th in ease of doing business and 2nd for perceived opportunities, but 21st in entrepreneurial intention. Fear of failure is high among Indians, ranking it 2nd among the 47 GEM participating economies (Shukla et al., 2023). This signifies that Indians lack sufficient intention to start a business despite government support programmes (Anwar et al., 2020; Anwar et al., 2021; Roy et al., 2017). Kerala has unique resources and the potential to have many more entrepreneurial ventures, but the number of graduate students choosing entrepreneurship is still low. The future of entrepreneurial behaviour is predicted by entrepreneurial intention. Hence, entrepreneurial intentions are considered to be the crucial step in the process of business formation and are often intentional (Engle et al., 2011) because entrepreneurship is a predictable activity.

By assessing entrepreneurial intention and antecedents, policymakers and strategists would be able to develop efficient strategies to improve the entrepreneurial culture. The question of whether programmes and strategies to enhance students' entrepreneurial intentions need to be modified or enhanced and how they should be carried out remains unanswered due to a lack of understanding of the entrepreneurial intention and its antecedents. The objective of the present study is to examine entrepreneurial intention among the students of HEIs in Kerala and conduct an extensive analysis of the determinants of entrepreneurial intention. It will try to explain the relationship between the determinants that contribute positively and negatively to entrepreneurial intention and seeks to answer the question of whether the existing programmes and strategies for promoting entrepreneurship among students of HEIs in Kerala need any modifications or corrections.

4.3 Research Questions

On the basis of the research problem, the following research questions are formulated:

1. What is the level and extent of entrepreneurial intention and its antecedents among the students of HEIs in Kerala?
2. What are the perceived barriers hindering the formation of entrepreneurial intentions among the students of HEIs in Kerala?
3. Does entrepreneurial attitude play an intervening role among students of HEIs in Kerala in the relationship between entrepreneurial personality traits and entrepreneurial intention?
4. Does entrepreneurial motivation play a mediating role among students of HEIs in Kerala in the relationship between perceived environmental support and entrepreneurial intention?
5. What is the mediating effect of entrepreneurial attitude and self-efficacy among students of HEIs in Kerala in the relationship between perceived barriers and entrepreneurial intention?
6. Does institutional entrepreneurship and innovation support have a moderating effect on the relationship between the psychological characteristics of students at HEIs in Kerala and their entrepreneurial intention?

4.4 Objectives of the Study

The present study, entitled "Entrepreneurial Intention and Antecedents among the Students of Higher Education Institutions in Kerala," is conducted with the following specific objectives:

1. To examine the level and extent of entrepreneurial intention and its antecedents among the students of HEIs in Kerala.
2. To assess the level of perceived barriers hindering the formation of entrepreneurial intention among the students of HEIs in Kerala.
3. To examine the intervening role of entrepreneurial attitude among the students of HEIs in Kerala in the relationship between entrepreneurial personality traits and entrepreneurial intentions.
4. To examine the mediating role of entrepreneurial motivation among the students of HEIs in Kerala in the relationship between perceived environmental support and entrepreneurial intention.
5. To analyse the mediating effect of entrepreneurial self-efficacy and entrepreneurial attitude among the students of HEIs in Kerala in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.
6. To extract the moderating effect of institutional innovation and entrepreneurship support on the relationship between the psychological characteristics of students in HEIs in Kerala and their entrepreneurial intentions.

4.5 Major Hypotheses of the Study

$\mathbf{H_0 1}$: There is no significant difference among the levels of entrepreneurial intention and its antecedents among the students of HEIs in Kerala.

$\mathbf{H_0 2}$: There is no significant difference across various socio-demographic, economic, and background factors among students of HEIs in Kerala with respect to entrepreneurial intention and its antecedents.

$\mathbf{H_0 3}$: There is no significant difference among the levels of perceived entrepreneurial barriers among the students of HEIs in Kerala.

$H_0$4: There is no significant difference across various socio-demographic, economic, and background factors among students of HEIs in Kerala with respect to perceived entrepreneurial barriers.

$H_0$5: There is no significant difference between the degree of entrepreneurial intention among the students of HEIs in Kerala and the level of perceived entrepreneurial barriers.

H_1 1: Entrepreneurial attitude plays a mediating role in the relationship between the factors of entrepreneurial personality traits and entrepreneurial intention among the students of HEIs in Kerala.

H_1 2: Entrepreneurial motivation has an intervening effect in the relationship between the factors of perceived environmental support and entrepreneurial intention among the students of HEIs in Kerala.

H_1 3: Entrepreneurial attitude and entrepreneurial self-efficacy have a mediating effect on the relationship between perceived entrepreneurial barriers and entrepreneurial intention among the students of HEIs in Kerala.

H_1 4: The psychological characteristics of the students of HEIs in Kerala have a positive effect on their entrepreneurial intentions, and institutional innovation and entrepreneurship support moderate this relationship.

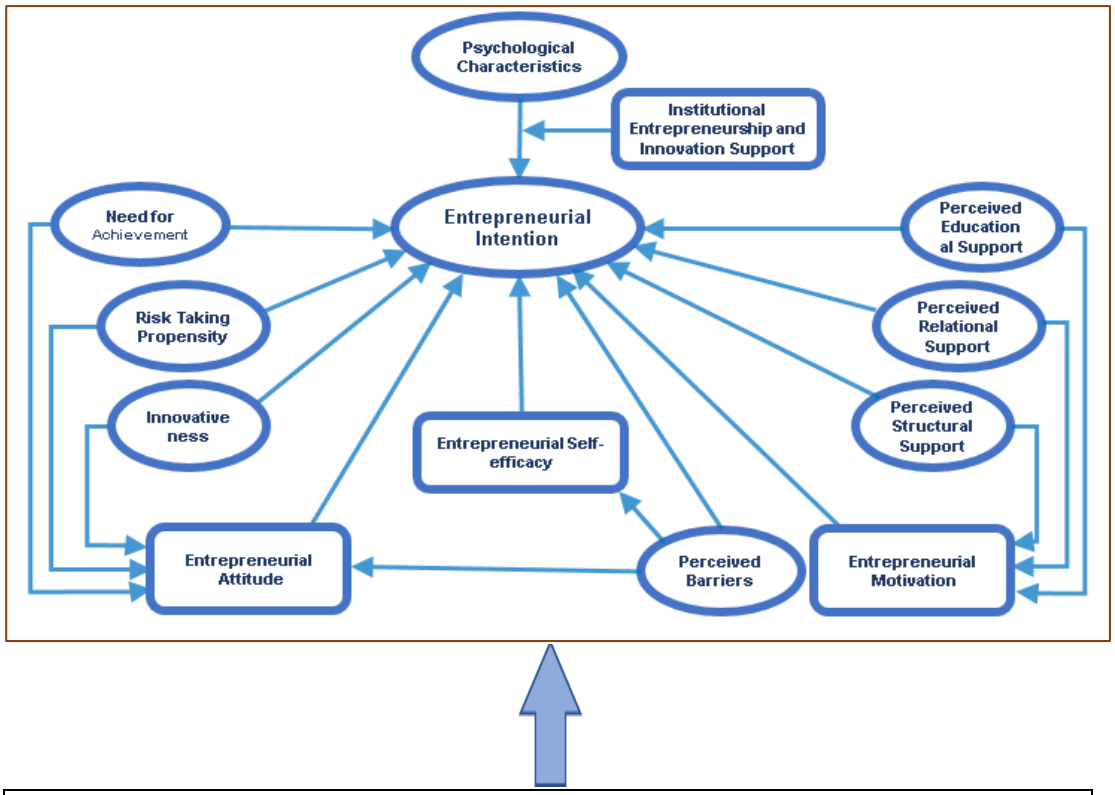
4.6 Conceptual Framework

The conceptual framework of the study provides a theoretical structure that directs the exploration of interactions between variables and helps to explain the phenomenon under study. This acts as a guide for comprehending how various constructs interact and how it affect the desired results. The conceptual framework for the present study is developed based on the existing literature and relevant theories. It consists of key constructs and their hypothesised relationships, forming a foundation for data collection, analysis, and interpretation. Entrepreneurial intention, which represents an individual's desire and drive to establish their own business, serves as the primary construct of the conceptual framework. This construct is influenced by a number of antecedents, including factors like attitude, self-efficacy, motivation, risk-taking

propensity, need for achievement, innovativeness, perception of environmental support factors, and perceived barriers. It is hypothesised that these antecedents either directly or indirectly influence an individual's decision to become an entrepreneur. The conceptual model presented in Figure 4.1 offers a framework for data analysis, enabling the researcher to test the proposed relationships and validate the assumptions based on theory.

Figure 4.1

Conceptual Framework of the Study



Socio-Demographic, Economic and Background Factors		
• Gender • Family Income • Stream of Study	• Family Business Background • Entrepreneurial Course Learned • Entrepreneurial Activities Conducted by the College	• Membership in I&E-oriented Cells or Clubs • Institutional I&E Support

Source: Developed by the researcher

The components of the model shown in Figure 4.1 were modified from previously hypothesised and tested models with the inclusion of motivation and personality characteristics. The framework considers both direct and indirect effects of personality traits, perceived environmental factors, and perceived barriers on entrepreneurial intention. It further incorporates the mediating role of three

psychological characteristics, namely entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. Additionally, the study takes into account several socio-demographic, economic, and background factors that may influence entrepreneurial intention. These factors are considered to provide a comprehensive understanding of the contextual influences on students' entrepreneurial intentions. Moreover, the study explores the moderation effect of institutional support for entrepreneurship and innovation on the relationship between psychological characteristics and entrepreneurial intention. By integrating these various elements, the conceptual framework provides a holistic approach to understanding the complex dynamics underlying entrepreneurial intention among students in Kerala.

4.7 Scope of the Study

The main focus of the present study is to conduct a comprehensive investigation of the variables that influence the formation of entrepreneurial intention among final-year undergraduate students from a multitude of backgrounds, including engineering, arts, commerce, management, and science. The scope of the study includes students from HEIs in Kerala, specifically those where the Innovation and Entrepreneurship Development Centres (IEDC) are established, as it is the sole entrepreneurship and innovation-oriented platform functioning as common in all arts, science, and professional colleges.

The study used a quantitative approach and a model combining entrepreneurship and psychology theories to examine the relationships between different factors that influence entrepreneurial intention. The study assessed whether selected personality traits, psychological characteristics, perceptions of support, and barriers significantly contribute to entrepreneurial intention. The level of entrepreneurial intention, its antecedents, and barriers were examined across selected socio-demographic, economic, and background factors. The study examined the mediating effects of entrepreneurial attitude, motivation, and self-efficacy in the relationship between influencing factors and entrepreneurial intention. The moderating role of institutional innovation and entrepreneurship support in the association between psychological characteristics and entrepreneurial intention was also examined.

4.8 Research Methodology

4.8.1 Research Design

The research design employed in the present study titled Entrepreneurial Intention and Antecedents among the Students of Higher Education Institutions in Kerala, is a cross-sectional design that combines both descriptive and analytical components. Data are gathered for the study using a cross-sectional methodology over a single point of time. The study collects data from final-year undergraduate students of various engineering, arts, and science colleges in Kerala. The study is descriptive in nature, as it tends to describe the characteristics of the population. Furthermore, it incorporates analytical aspects by formulating hypotheses and employing appropriate statistical tools for analysis.

4.8.2 Sources of Data

In order to perform the study, secondary and primary data sources were used.

4.8.2.1 Secondary Data

An extensive collection of secondary data was acquired for the study from a broad range of published sources. These sources include recognised research publications that offer insightful evaluations and findings from earlier research projects carried out by experts in the subject. Books and publications were also reviewed to access relevant theories, frameworks, and concepts that were applicable to the study topic. In addition to research journals, books, and publications, research dissertations and theses were explored to acquire access to in-depth studies and investigations carried out by other scholars. Furthermore, study reports, including the GEM Global Report 2022/2023, 2020/2021, the GEM India Report 2022, the Economic Review 2022, the AISHE 2020-21 report, the Global Innovation Index 2021 report, the World Migration Report 2022, the IIC Annual Report 2021–22, the IEDC Nodal Officer Handbook, the report of IEDC activities 2019–20, 2021–22, Kerala Budget Annual Plan Volume II and others, were examined. Additionally, the websites of KSUM, MoE's Innovation Cell, the Directorate of Industries and Commerce, the Ministry of Education, and others were also assessed.

4.8.2.2 Primary Data

The study aimed to assess the levels and relationships of entrepreneurial intention and its antecedents among the students of HEIs in Kerala. In order to achieve this objective, the study employed a structured and validated questionnaire that was administered to the participants. In addition, the researcher engaged in consultations and discussions with IEDC nodal officers to gather information about the initiatives, programmes, and events related to innovation and entrepreneurship that were being conducted within their respective institutions.

4.8.3 Sample Design

4.8.3.1 Population

The population for the present study comprises final year undergraduate students enrolled in Engineering and Arts and Science Colleges in Kerala, India, with a minimum of two years' functioning Innovation and Entrepreneurship Development Centre (IEDC), a key project of Kerala Start-Up Mission promoting entrepreneurship.

4.8.3.2 Sample

Data was collected for the study using a sample size of 1063 final-year undergraduate students from various engineering and arts and science colleges in Kerala, where the IEDC had been functioning for a minimum of two years.

4.8.3.3 Sample Size Determination

The determination of the sample size was based on the standard deviation obtained from the pilot study, which involved a sample of 90 respondents. The sample size was chosen to ensure that the standard error would be within acceptable limits at a significance level of 5%. The calculation of the sample size was performed using the following formula:

Sample size (n) = (ZS/E) 2

Where Z= Standard Value corresponding to a confidence level of 95% = 1.96

S= Sample Standard Deviation from the pilot study of 90 samples = 0.832

E= Acceptable Error = 5% (i.e., 0.05)

Hence, the sample size (n) = (ZS/E) 2 = (1.96*0.832/0.05)2 = 1063.41

Therefore, the researcher determined the sample size of the study to be 1063.41 by using a formula. As a result, **1063** *data samples were collected for the study.*

The researcher considered the sample size in accordance with Co-variance Based Structural Equation Modelling (CB-SEM) while conducting the data analysis for the study. Tanaka (1987) suggests that a sample size with a 5:1 ratio of cases to free parameters is sufficient for conducting Structural Equation Modelling (SEM) analysis using Maximum Likelihood Estimation with multivariate normal data. Thus, a sample size of 1063 was considered adequate for conducting CB-SEM models in the study.

4.8.3.4 Sampling Technique

A multi-stage random sampling method was adopted to measure the entrepreneurial intention and its antecedents among the students of HEIs in Kerala. In the initial stage of the study, the researcher compiled a list of engineering and arts and science colleges in Kerala that had a functioning IEDC for a minimum of two years. The purpose of this criterion was to ensure that the selected colleges had a well-established entrepreneurship and innovation ecosystem. In the next stage, the engineering colleges meeting the specified criteria were divided into three distinct strata based on ownership and management. These strata included government and aided colleges, colleges under government departments or universities, and private self-financing colleges. Similarly, the arts and science colleges with a minimum of two years of IEDC functioning were categorised into two strata based on management and administration, namely autonomous colleges and government, aided and self-financing colleges.

Within each stratum, a random selection procedure was employed to guarantee a representative sampling. Based on the total number of colleges in each stratum, a proportional number of institutions were chosen from each category. This systematic procedure was employed to ensure a fair representation of colleges from each stratum, thereby enhancing the generalizability of the study's findings. The number of colleges selected for the study using stratified random sampling method is shown in Table 4.1

Table 4.1

Classification of Colleges into Different Stratas and Selection of the Number of Colleges for the Study

	ENGINEERING COLLEGES				ARTS AND SCIENCE COLLEGES			
	Government/Aided Colleges	Colleges under Government	Private Self-Financing Colleges	Total	Autonomous Colleges	Government/Aided/Self-Financing Colleges	Total	Grand Total
No. of Colleges established IEDC	12	21	108	**141**	11	85	**96**	**237**
No. of Colleges selected for the study	1	2	11	**14**	1	9	**10**	**24**

Source: Compiled through information retrieved from the KSUM website

The present study utilised a systematic sampling technique to identify the sample students from each selected college. The specific focus of the study was on final-year engineering students admitted to their programme in the academic year 2018-19, as well as final-year arts and science college students admitted in the academic year 2019-20. To ensure a representative sample, every tenth student from the admissions roll of each college was included in the study. This systematic approach was chosen to achieve an unbiased representation of students from various colleges within each stratum. By employing this sampling method, the study successfully captured a diverse range of participants, allowing for a comprehensive and well-rounded analysis. The number of samples selected from each college is presented in the following tables, reflecting the meticulous and inclusive nature of the research design. Through this robust sampling approach, the study aims to gain valuable insights into the entrepreneurial intentions of students in different disciplines, contributing to a deeper understanding of entrepreneurship within the higher education landscape.

Table 4.2

Selection of Sample of Engineering College Students for the Study

Category	Name of the College	Total Strength of Final Year UG Students	Sample Selected for the Study
Government/Aided College	Government Engineering College, Thrissur	556	56
Colleges under Government Undertakings/Universities	College of Engineering and Management, Punnapra	181	18
	College of Engineering Pathanapuram, Kollam	144	14
Private Self-Financing Colleges	Al-Ameen Engineering College, Palakkad	164	16
	Jyothi Engineering College, Cheruthuruthy, Thrissur	375	38
	Christ College of Engineering, Irinjalakuda	252	25
	Rajagiri School of Engineering and Technology, Ernakulam	694	70
	Adi Shankara Institute of Engineering and Technology, Kaladi	491	49
	MES College of Engineering, Kuttipuram, Malappuram	373	37
	Sahrdaya College of Engineering and Technology, Kodakara	346	35
	St. Joseph's College of Engineering and Technology, Palai	485	49
	Rajadhani Institute of Engineering and Technology, Trivandrum	218	22
	Saintgits College of Engineering (Autonomous), Kottayam	534	53
	St Thomas College of Engineering and Technology, Kannur	143	14
		4956	**496**

Source: Compiled through information retrieved from RTI and college authorities

Table 4.3

Selection of Sample of Arts and Science College Students for the Study

Name of the College	Arts		Commerce		Science		Total
	Total Strength of Final Year UG Students	Sample Selected for the Study	Total Strength of Final Year UG Students	Sample Selected for the Study	Total Strength of Final Year UG Students	Sample Selected for the Study	
Autonomous College							
St Thomas College (Autonomous) Thrissur	227	**23**	491	**49**	256	**25**	97
Government, Aided & Self-Financing Colleges							
Amal College of Advanced Studies Nilambur	99	**10**	84	**8**	130	**13**	31
St. Peter's College, Kolenchery	232	**23**	232	**23**	126	**12**	58
MES Asmabi College, P Vemballur	167	**17**	234	**24**	323	**32**	73
MES, Kalladi College Mannarkkad	148	**15**	232	**23**	288	**29**	67
Al-Ameen College, Edathala, Ernakulam	72	**7**	133	**14**	203	**20**	41
Sanatana Dharma College, Alappuzha	258	**26**	261	**26**	120	**12**	64
T.K.M College of Arts and Science, Kollam	108	**11**	235	**24**	120	**12**	47
Kristu Jyoti College of Management and Technology, Changanassery	26	**3**	102	**10**	268	**27**	40
Sir Syed College, Taliparamba	222	**22**	208	**21**	60	**6**	49
TOTAL	1559	**157**	2212	**222**	1894	**188**	567

Source: Compiled through information retrieved from RTI and college authorities

Table 4.4

Total Number of Sample Selected for the Study

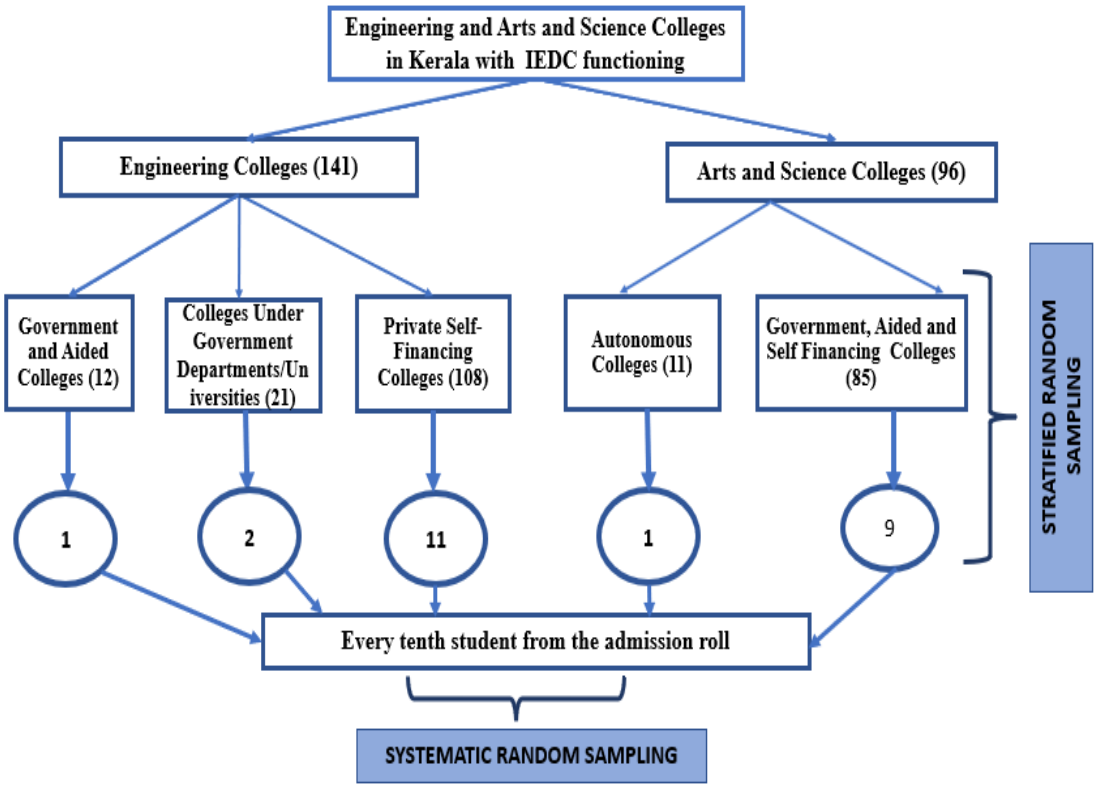
Engineering Students	Arts Students	Commerce Students	Science Students	Total Sample Selected
496	157	222	188	1063

Source: Data compiled by the researcher

The sampling technique used in the initial stages was stratified random sampling, where colleges were selected randomly within each stratum. Subsequently, during the final stage of the sampling process, systematic random sampling was implemented to select individual students from the identified colleges. The admission rolls of each college served as the sampling frame. By selecting every tenth student from these rolls, the study maintained a systematic and unbiased approach in recruiting participants. Figure 4.2 represents the sampling method adopted for the study.

Figure 4.2

Sampling Technique Adopted for the Study



Source: Compiled by the researcher

4.8.4 Design of the Questionnaire

The researcher employed a structured questionnaire to gather primary data from a sample of students. In order to ensure the validity of the questionnaire, the researcher conducted a pilot study involving 90 students from various academic streams, including arts, commerce, engineering, and science. Additionally, the researcher sought input from experts in the field of research and IEDC nodal officers from different colleges. Their suggestions and recommendations were incorporated into the questionnaire to enhance its validity. Following the pilot study and expert feedback, the questionnaire was refined and finalised.

For data collection, the researcher personally visited some colleges selected for the study and collected the final-year UG student list from the admission roll, and based on the list, every tenth student from the list was personally approached. The significance of the study was discussed with the sample students, and later the questionnaire was distributed. In certain colleges personally visited by the researcher, a structured paper-based questionnaire was administered, while in other colleges, a Google Form was utilised for data collection. Specifically, the study focused on the 2018 admission batch of B.Tech. engineering students and the 2019 admission batch of UG students from arts and science colleges. In cases where personal visits were not feasible, the researcher personally approached the IEDC nodal officers of the respective colleges to obtain the student lists and subsequently collected data from the sample students by circulating a Google Form. The actual survey period was from February 2022 to July 2022.

The questionnaire was structured into three distinct parts:
Part 1 of the questionnaire consisted of questions that pertained to the socio-demographic, economic, and background factors of the respondents.

Part 2 of the questionnaire focused on gathering responses related to entrepreneurial intention and its antecedents among the students.

Part 3 of the questionnaire included questions aimed at collecting responses related to perceived barriers hindering the formation of entrepreneurial intention among the students.

The data collection instrument was meticulously designed based on structured and validated questionnaires from earlier studies that investigated entrepreneurial intention and its influencing elements. To ensure consistency, well-established scales were adopted from earlier studies, with minor modifications made to align with the specific scope of the current study. The table 4.5 below provides a comprehensive overview of the variables that were studied and the associated scales that were applied, demonstrating the meticulous approach taken in selecting and customising the measuring instruments.

Table 4.5

Variables Used for the Study

Variables Used for the Study	Adapted from Earlier Studies	Number of Items in Each Variable
Need for Achievement	(Kristiansen & Indarti, 2004).	4
Risk-Taking Propensity	(Turan & Kara, 2007)	5
Innovativeness	(Jackson, 1994).	4
Perceived Educational Support	(Turker & Selcuk, 2009)	4
Perceived Structural Support	(Turker & Selcuk, 2009)	4
Perceived Relational Support	(Turker & Selcuk, 2009)	4
Entrepreneurial Attitude	(Liñán & Chen, 2009)	5
Entrepreneurial Self-efficacy	(Liñán & Chen, 2009)	5
Entrepreneurial Motivation	(Solesvik, 2013)	5
Entrepreneurial Intention	(Liñán & Chen, 2009)	5
Perceived Lack of Support	(Shinnar et al., 2012)	5
Perceived Lack of Competencies	(Shinnar et al., 2012)	4
Lack of Fund	(Uddin et al., 2015)	4
Fear of Failure	(Cacciotti et al., 2020)	4

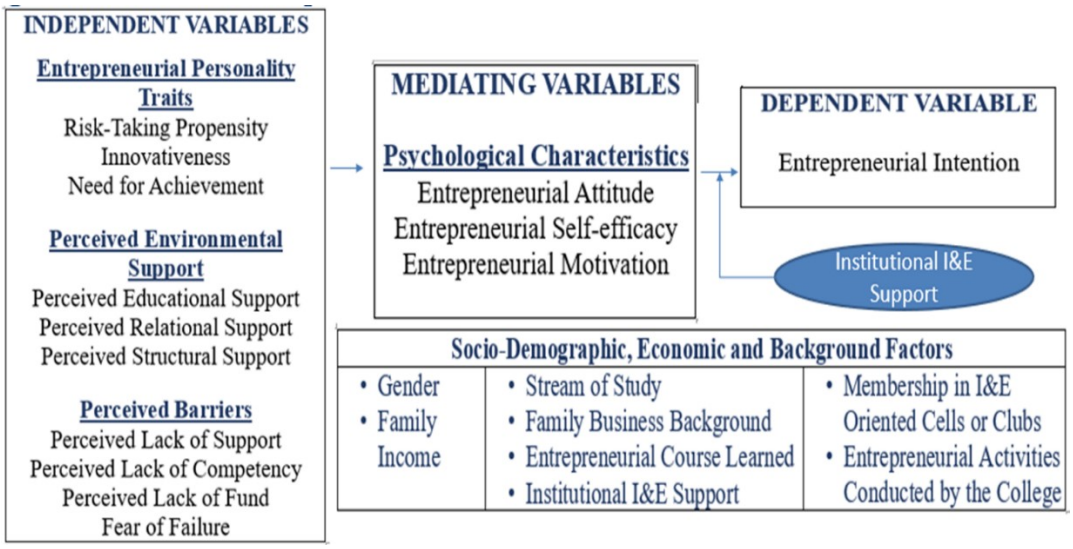
Source: Compiled by the researcher

By utilising existing validated scales and customising them to match the context and objectives of the study, the questionnaire captures reliable data on entrepreneurial intention and antecedents, ensuring the credibility and validity of research findings.

The present study employed a 5-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree," to effectively measure a variety of factors, including entrepreneurial intention and its antecedents. In addition, perceived barriers were evaluated on a 5-point Likert scale, with the options ranging from "to a very great extent" to "to a small extent." Additionally, various socio-demographic, economic, and background factors were also examined by the researcher. The socio-demographic, economic, and background factors employed for the study include gender, stream of study, family income, family business background, entrepreneurial course learned, membership in entrepreneurship and innovation-oriented cells or clubs, entrepreneurial activities conducted by the college, and institutional support provided for entrepreneurship and innovation.

Figure 4.3

List of Variables and Their Nature Based on Predictive Analysis



Source: Compiled by the researcher

4.8.5 Pretesting of Questionnaire

A pilot study was conducted by administering questionnaire among 90 students from various academic streams, including arts, commerce, engineering, and science. This enabled to identify and rectify errors and shortcomings to ensure its validity. The selected students were requested to complete the questionnaire as part of the pilot study and provide necessary feedback on clarity, relevance, and structure. Participants were encouraged to share their thoughts, suggestions, and difficulties encountered while filling out the questionnaire. Based on the findings from the pilot study,

necessary revisions were made to improve the clarity and validity of the final questionnaire.

4.8.6 Reliability Analysis

In the pilot study, an internal consistency analysis was conducted using Cronbach's alpha to assess the reliability of the fourteen constructs. The analysis was performed on a sample size of 90 participants, aiming to measure the reliability and consistency of the measurement items within each construct. Table 4.6 presents the internal consistency analysis for 90 samples based on the pilot study, while Table 4.7 displays the internal consistency analysis for the complete data.

Table 4.6
Internal Consistency Analysis of Constructs using Cronbach's Alpha
(Sample Size: 90)

SI No.	Constructs	Cronbach's Alpha	No. of Items	No. of Items deleted
1	Need for achievement	0.814	4	Nil
2	Risk-taking propensity	0.839	5	Nil
3	Innovativeness	0.827	4	Nil
4	Entrepreneurial attitude	0.886	5	Nil
5	Entrepreneurial self-efficacy	0.884	5	Nil
6	Entrepreneurial intention	0.942	5	Nil
7	Perceived education support	0.884	4	Nil
8	Perceived relational support	0.879	4	Nil
9	Perceived structural support	0.854	4	Nil
10	Entrepreneurial motivation	0.888	5	Nil
11	Perceived lack of support	0.876	5	Nil
12	Perceived lack of competency	0.895	4	Nil
13	Perceived economic barrier	0.901	4	Nil
14	Fear of failure	0.924	4	Nil

Source: Primary data

Cronbach's Alpha values in terms of the internal consistency of the pilot study reveal that all constructs are reliable. Generally, reliability coefficients of 0.70 or more are considered good (Nunnally, 1967). Therefore, the researcher decided to proceed with further data collection.

Table 4.7

Internal Consistency Analysis of Constructs using Cronbach's Alpha (Sample Size: 1063)

SI No.	Constructs	Cronbach's Alpha	No. of Items	No. of Items deleted
1	Need for achievement	.86	4	Nil
2	Risk-taking propensity	.89	5	Nil
3	Innovativeness	.88	4	Nil
4	Entrepreneurial attitude	.92	5	Nil
5	Entrepreneurial self-efficacy	.93	5	Nil
6	Entrepreneurial intention	.95	5	Nil
7	Perceived education support	.93	4	Nil
8	Perceived relational support	.92	4	Nil
9	Perceived structural support	.89	4	Nil
10	Entrepreneurial motivation	.93	5	Nil
11	Perceived lack of support	.89	5	Nil
12	Perceived lack of competency	.89	4	Nil
13	Perceived Lack of fund	.89	4	Nil
14	Fear of failure	.89	4	Nil

Source: Primary data

The Cronbach's Alpha values for the complete data set indicated that all constructs revealed strong internal consistency, as each Cronbach's Alpha value exceeded .80. These findings imply that all constructs can be considered reliable. According to Nunnally (1967), reliability coefficients of 0.70 or higher are generally regarded as good indicators of internal consistency.

4.8.7 Assessment of Data Normality (Distributional Assumption)

To determine the normality of the data, a Kolmogorov-Smirnov test, as suggested by Sarstedt and Mooi (2014), was performed.

Table 4.8

Kolmogorov-Smirnov Test Result for Data Normality

SI No.	Constructs	Kolmogorov-Smirnov test	
		Statistic	Sig.
1	Need for achievement	0.017	0.200*
2	Risk-Taking propensity	0.015	0.200*
3	Innovativeness	0.013	0.200*
4	Entrepreneurial attitude	0.014	0.200*
5	Entrepreneurial self-efficacy	0.018	0.200*
6	Entrepreneurial intention	0.019	0.200*
7	Perceived education support	0.017	0.200*
8	Perceived relational support	0.015	0.200*
9	Perceived structural support	0.017	0.200*
10	Entrepreneurial motivation	0.018	0.200*
11	Perceived lack of support	0.019	0.200*
12	Perceived lack of competency	0.017	0.200*
13	Perceived economic barrier	0.015	0.200*
14	Fear of failure	0.019	0.200*

*Source: Primary data * This is a lower bound of the true significance*

The data presented in the aforementioned table suggests that the P values obtained from the Kolmogorov-Smirnov test exceed the significance level of 0.05. This indicates that the data pertaining to each construct exhibits characteristics of a normal distribution.

4.8.8 Statistical Tools Used for Data Analysis

Table 4.9

Statistical Tools Used for Data Analysis

Objective of the Study	Tools Applied
Objective 1- Examining the level and extent of entrepreneurial intention and its antecedents	Mean, Standard Deviation, One Sample -test, independent t-test, ANOVA with Tukey HSD's post hoc analysis, Quartile Deviation, Percentage Analysis and Chi-Square test for goodness of fit are used with the help of IBM SPSS 21 software package.
Objective 2- Examining the level of perceived entrepreneurial barriers	Mean, Standard Deviation, One Sample -test, Quartile Deviation, Percentage Analysis and Chi-Square test for association are used with the help of IBM SPSS 21 software package.
Objective 3 – Mediating role of entrepreneurial attitude	Co-variance Based Confirmatory Factor Analysis (CB-CFA), Structural Equation Modelling (SEM) techniques and Bootstrapping procedures were adopted with the help of IBM SPSS AMOS graphics 21 software package
Objective 4 - Mediating role of entrepreneurial motivation	Co-variance Based Confirmatory Factor Analysis (CB-CFA), Structural Equation Modelling (SEM) techniques and Bootstrapping procedures were adopted with the help of IBM SPSS AMOS graphics 21 software package
Objective 5 – Parallel mediating effect of entrepreneurial self-efficacy and entrepreneurial attitude	Co-variance Based Confirmatory Factor Analysis (CB-CFA), Parallel Mediation Analysis, Structural Equation Modelling (SEM) techniques and Bootstrapping procedures were adopted with the help of IBM SPSS AMOS graphics 21 software package
Objective 6 - Moderating effect of institutional innovation and entrepreneurship support	Co-variance based Structural Equation Modelling (SEM) techniques and Multi-Group Analysis (MGA) were adopted with the help of IBM SPSS AMOS graphics 21 software package

Source: Compiled by the researcher

1. Mean

In the present study, the mean was utilized as a statistical measure to analyze the extent of entrepreneurial intentions and antecedents, as well as the perceived entrepreneurial barriers among the participants. By calculating the mean values of the responses from the survey data, the study gained insights into the average levels of entrepreneurial intentions and the factors influencing them. Additionally, the mean was used to assess the perceived severity of entrepreneurial barriers reported by the participants. This statistical approach allowed to identify central tendencies and patterns in the data, providing valuable information for understanding the participants' entrepreneurial aspirations and the potential challenges they face in pursuing entrepreneurship.

2. Standard Deviation

The standard deviation was utilized as a statistical measure to assess the extent of entrepreneurial intentions and antecedents among the participants. By calculating the standard deviation of the responses from the survey data, the study obtained a measure of the data's variation or dispersion around the mean. A higher standard deviation indicated greater variability in the participants' entrepreneurial intentions and antecedents, highlighting diverse perspectives and attitudes. On the other hand, a lower standard deviation suggested less variability, signifying a more consistent pattern in their responses.

3. One Sample -test

One-sample t-test was applied to examine the extent of entrepreneurial intentions and antecedents. By comparing the sample mean to a known or assumed population mean, this statistical test allowed to determine if there is sufficient evidence to suggest that the participants' entrepreneurial intentions and antecedents significantly deviated from the expected average. The one-sample t-test assumed that the data followed a normal distribution and enabled us to assess the significance of any differences between the sample mean and the hypothesized population mean. This analysis provided valuable insights into the participants' entrepreneurial aspirations and the factors influencing them, helping to uncover any noteworthy variations from the expected average levels.

4. Independent t-test

The independent t-test was employed to identify variations in entrepreneurial intentions and antecedents based on socio-demographic, economic, and background factors. This statistical test allowed for a comparison of means between two independent groups, enabling to determine whether there were statistically significant differences in entrepreneurial intentions and antecedents among different participant subgroups.

5. ANOVA and Tukey's (HSD) post hoc analysis

ANOVA and Tukey's Honestly Significant Difference (HSD) post hoc analysis were employed to compare the means of three or more groups based on factors such as family income and stream of study. ANOVA allowed for the examination of significant differences among group means concerning entrepreneurial intentions and antecedents, taking into account different family income categories and academic streams. Subsequently, Tukey's HSD post hoc analysis was applied to identify specific group means that differed significantly from each other within these factors. This statistical approach enabled multiple pairwise comparisons, helping to pinpoint significant differences in entrepreneurial aspirations and attitudes among various family income levels and academic streams.

6. Quartile Deviation

Quartile deviation (QD) was utilized as a measure to assess the level of entrepreneurial intention and its antecedents, as well as the levels of perceived barriers influencing entrepreneurial intention. By dividing the dataset into four equal parts or quartiles, QD provided valuable insights into the spread or variability of entrepreneurial intentions and antecedents within the middle 50% of the data, while disregarding extreme values.

7. Chi-Square test for goodness of fit

Chi-square test was employed to assess the significance of data distribution in each quartile. By comparing the observed and expected frequencies of categorical data, the chi-square test was used to determine the significant differences between the two, indicating a lack of goodness of fit. Specifically, this statistical analysis was used to examine how the data points were distributed within each quartile and to evaluate if

there were any notable deviations from the expected distribution. The chi-square test provided valuable insights into the degree of agreement between the observed and expected frequencies in each quartile, enabling a comprehensive evaluation of data distribution and the goodness of fit for the variables under consideration.

8. Co-variance Based Confirmatory Factor Analysis (CB-CFA)

Covariance-Based Confirmatory Factor Analysis (CB-CFA) was utilized as a statistical technique within structural equation modeling (SEM). This method allowed us to assess the validity of a hypothesized measurement model, where observed variables were used to measure latent (unobserved) constructs. CB-CFA evaluated the fit between the hypothesized model and the observed data, providing insights into the relationships between the latent constructs and their indicators. By employing CB-CFA, the study gained a deeper understanding of how well the observed variables represented the underlying latent constructs, allowing for a robust examination of the measurement model's validity and the relationships between different constructs.

9. Co-Variance Based Structural Equation Modelling (CB-SEM)

Structural Equation Modeling (SEM) was employed as a statistical technique to analyze complex relationships between variables and test theoretical models. Specifically, the study used covariance-based structural equation modeling (CB-SEM) to analyze observed variables and latent constructs. By examining the covariance matrix among variables, CB-SEM was used to evaluate the fit of the suggested model and calculate the links between the latent constructs. This statistical approach allowed the study to assess theoretical frameworks and gain a deeper understanding of the intricate relationships between variables. By utilizing CB-SEM, the present research explored and validated the proposed measurement model and theoretical constructs, providing valuable insights into the complex dynamics within the study's domain.

10. Bootstrapping procedures

Bootstrapping procedures were employed to examine the mediating role of psychological characteristics in the relationship between entrepreneurial intentions and their antecedents. By utilizing bootstrapping, the study generated multiple bootstrap samples by resampling from the original dataset with replacement. This process created new datasets, allowing for statistical calculations to estimate the

sampling distribution, construct confidence intervals, and test hypotheses. The bootstrapping procedure helped to quantify variability and uncertainty in the relationships between the variables of interest, shedding light on the mediating mechanisms involved.

11. Parallel Mediation Analysis

A parallel mediation analysis was employed to examine the mediating roles of entrepreneurial attitude and self-efficacy in the relationship between perceived entrepreneurial barriers and entrepreneurial intention. This statistical approach allowed for the simultaneous examination of multiple mediators involved in the indirect effects of perceived entrepreneurial barriers on entrepreneurial intention. By employing this method, the study aimed to unveil the distinct mediating mechanisms through which these psychological characteristics influenced the participants' intentions to pursue entrepreneurship in the face of perceived barriers.

12. Multi-Group Analysis (MGA)

Multi-group analysis was utilized to explore the moderating effect of institutional innovation and entrepreneurship support in the relationship between psychological characteristics and entrepreneurial intention. This statistical technique allowed to examine and evaluate whether the suggested model's structural linkages between psychological characteristics and entrepreneurial intention remained consistent across different levels of institutional innovation and entrepreneurship support. Through multi-group analysis, the study gained insights into how the relationship between psychological characteristics and entrepreneurial intention might vary based on the level of institutional innovation and entrepreneurship support.

4.9 Operational Definitions

1. Entrepreneurial Intention

Entrepreneurial intention is a person's openness to engaging in entrepreneurial activities like launching a new firm and becoming an entrepreneur. The foundation of entrepreneurial conduct is entrepreneurial intention.

2. Psychological Characteristics

Psychological characteristics refer to internal attributes and tendencies influencing thoughts, emotions, and behaviours, particularly in entrepreneurship. They shape an individual's mindset, attitudes, beliefs, and motivations, impacting their approach and likelihood of success.

3. Personality Traits

Personality traits are stable patterns of thoughts, emotions, and behaviours that differentiate individuals. In entrepreneurship, it includes factors like the need for achievement, risk-taking propensity, innovativeness, etc. These traits influence an individual's drive for success, willingness to take risks, and ability to generate and implement innovative ideas.

4. Entrepreneurial Attitude

Entrepreneurial attitude is the degree to which a person has a favourable or unfavourable evaluation of being an entrepreneur.

5. Entrepreneurial Self-efficacy

Entrepreneurial self-efficacy is the confidence of an individual in his or her ability to effectively perform entrepreneurial roles and tasks.

6. Entrepreneurial Motivation

Entrepreneurial motivation is a set of motives such as autonomy, creative ambition, economic benefits, etc. that induce a person to set up and run their own business.

7. Need for Achievement

The need for achievement refers to an individual’s strong desire to accomplish goals and attain a high standard of performance and personal fulfilment.

8. Risk-Taking Propensity

Risk-taking propensity is the willingness of a person to tolerate uncertainty and accept the potential risks involved in starting and managing a new venture.

9. Innovativeness

Innovativeness refers to an individual's ability to think creatively and their capacity to identify opportunities to generate novel and valuable ideas.

10. Perceived Educational Support

The perception of support and encouragement provided by the educational institution in developing an entrepreneurial ecosystem is termed as perceived educational support.

11. Perceived Relational Support

Perception of support and encouragement provided by family and friends to start and run a business, as well as network relationship support perceived by the individual.

12. Perceived Structural Support

The perception of support and assistance from the government and non-government agencies, including financial aid, state laws, rules, and regulations, etc., for running a business is termed as perceived structural support.

13. Perceived Entrepreneurial Barriers

Perceived barriers are the obstacles that a person believes will prevent him from becoming an entrepreneur. It includes a lack of support from family and friends, a lack of advisory and counselling services, a lack of competencies, a fear of failure, and lack of funds to start and run a business.

14. Perceived Lack of Competencies

A person's perception or subjective conviction that they lack the talents, knowledge, or skills required to effectively engage in entrepreneurial activities is referred to as perceived lack of competencies.

15. Perceived Lack of Fund

A perceived lack of funds is a person's perception or subjective conviction that they do not have enough financial resources or access to finance to start or continue their entrepreneurial enterprise.

16. Perceived Lack of Support

Perceived lack of support refers to an individual's perception of inadequate support, guidance, or encouragement in areas of entrepreneurship and business setup. It includes elements that might obstruct a person from pursuing entrepreneurial endeavours and starting a firm, such as a lack of support from family and friends, restricted access to counselling or mentorship services, and insufficient institutional assistance.

17. Fear of Failure

Fear of failure is the term used to describe the emotional apprehension or worry that people feel about the possible negative outcomes or setbacks connected with starting or running a business. The fear of failing to meet objectives, financial loss, harming one's reputation, or experiencing personal disappointment is a factor that can influence an entrepreneur's motivation and choices.

18. Institutional Support for Entrepreneurship and Innovation

Institutional support for entrepreneurship and innovation refers to the policies, programmes, infrastructure, and resources provided by the educational institution to foster and encourage entrepreneurial activities and the development of innovative ideas among the students.

4.10 Limitations of the Study

The present study consists its own limitations that are to be considered before drawing conclusions about the overall research population or attempting to apply the suggested model to different research contexts.

- The primary limitation of the research is the use of cross-sectional data, which captures students' perceptions at a specific moment in time without accounting for any changes in those perceptions over time.

- The present study concentrates solely on students' entrepreneurial intentions, which is not conclusive evidence of actual entrepreneurial behaviour. Although intentions are the best indicator of subsequent behaviour, they may not always result in fruitful output.

- The study focuses on the respondents' entrepreneurial personality traits and perceived barriers as potential contributors to their entrepreneurial attitudes. However, other factors might also have an impact on the respondents' entrepreneurial attitudes.

- Only three personality traits that are widely recognised to have a significant effect on entrepreneurial intention were explored in the present study. Other personality qualities, such as locus of control, tolerance for ambiguity, and self-confidence, which may similarly influence entrepreneurial attitudes and intentions, were not examined in the study.

- Another limitation of the present study is that it relied on students' perceptions for its data, which may not fully reflect the reality of the entrepreneurial ecosystem. The study's conclusions might be affected if the student's perceptions of the outside world are inaccurate.

- The present study focused exclusively on the role that family and friends play as providers of relational support for entrepreneurship, as they are the most accessible and readily available support network; however, peer or professional mentoring was not taken into consideration.

- Furthermore, the present study focused only on students from the fields of Arts, Science, Engineering, commerce, and management, neglecting students from other study programmes like Agriculture, Polytechnic, Tourism, Medicine, etc. This could limit the generalisation of the results to a broader population of students falling under the purview of the higher education category.

- Additionally, the study only considered undergraduate students of HEIs in Kerala, neglecting postgraduate students from the scope of study with the assumption that students decide about their career after graduation. But there are possibilities that students decide to pursue higher education to support their entrepreneurial initiatives. Also, some students may make their decision about their career after post-graduate studies.

The acknowledged limitations of the present study offer recommendations for further research, and are explained in Chapter 9.

In conclusion, the current chapter on research methodology has laid the foundation for the study, providing a clear understanding of the research problem, research questions, objectives of the study, major hypotheses, conceptual framework, research methodology, and limitations. The research problem has been identified, highlighting the gap in knowledge and the need for further investigation. The research questions and objectives have been formulated, providing a roadmap for achieving the purpose of the study. The conceptual model has been presented, illustrating the relationships between variables and guiding the data collection and analysis process. Additionally, the methodology adopted in the study is also demonstrated to get a clear picture of the population and sample and the tools applied for data analysis. Finally, the chapter also points out the limitations of the present study.

CHAPTER 5

ENTREPRENEURIAL INTENTION AND ITS ANTECEDENTS AMONG THE STUDENTS OF HIGHER EDUCATION INSTITUTIONS IN KERALA

Contents

5.1 Introduction

The present chapter examines the level and extent of entrepreneurial intention and its antecedents among the students of higher education institutions in Kerala. The chapter also examines the entrepreneurial intention and its antecedents across various socio-demographic, economic, and background factors of the students. Antecedents of entrepreneurial intentions are classified into three categories: psychological characteristics, personality traits, and perceived environmental support. Gender, stream of study, family income, family business background, entrepreneurial course learned, membership in entrepreneurship and innovation-oriented clubs or cells, entrepreneurial activities conducted by the institution, institutional entrepreneurship and innovation support are the factors of the students considered for cross-comparison.

5.2 Objective of the Chapter

Objective I: To examine the level and extent of entrepreneurial intention and its antecedents among the students of higher education institutions in Kerala.

To achieve the objective of the study, descriptive statistics, which include mean, standard deviation, quartile deviation, and percentage analysis, were used, as well as inferential analysis, which comprises one sample-test, an independent t-test, one-way ANOVA with Tukey's HSD post hoc analysis, and chi-square test for goodness of fit were employed.

The following factors were selected as antecedents of the entrepreneurial intentions of higher education students in Kerala.

(I) Psychological Characteristics

- Entrepreneurial attitude
- Entrepreneurial self-efficacy
- Entrepreneurial motivation

(II) Personality Traits

- Risk-taking propensity
- Innovativeness
- Need for achievement

(III) Perceived Environmental Support

- Perceived educational support
- Perceived relational support
- Perceived structural support

The following socio-demographic, economic and background factors of the students of higher education institutions in Kerala are considered for the cross-analysis

1. *Gender*
2. *Stream of study*
3. *Family income*
4. *Family business background*
5. *Entrepreneurial course learned*
6. *Membership in entrepreneurship and innovation-oriented clubs or cells*
7. *Entrepreneurial activities conducted by the institution*
8. *Institutional support for entrepreneurship and innovation*

5.3 The Level of Entrepreneurial Intention and its Antecedents among the Students of Higher Education Institutions in Kerala

The study employs quartile deviation to examine entrepreneurial intention and its antecedents among the students of Higher Education Institutions in Kerala. It helps understand the spread of entrepreneurial intentions and its antecedents.

5.3.1 The Level of Entrepreneurial Intention among the Students of Higher Education Institutions in Kerala

H.0.5.1: There is no significant difference in the levels of entrepreneurial intention among the students of HEIs in Kerala.

Table 5.1

The Levels of Entrepreneurial Intention Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Entrepreneurial Intention	389 (36.6%)	392 (36.9%)	282 (26.5%)	1063	22.162	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, it can be confirmed that the proportionate level of entrepreneurial intention among students pursuing higher education in Kerala is not distributed in a comparable way. As a result, the test indicates that the null hypothesis is not true at the 1% level. It seems to show that there is a considerable variation regarding the intention of students pursuing higher education in Kerala to engage in entrepreneurial activity.

It is clear from the data presented in the table that 36.6% of students have low interest in starting their own business. 36.9% of students had a moderate level of entrepreneurial intention. 26.5% of students enrolled in higher education institutions in Kerala have a high degree of entrepreneurial intention. It can be concluded from this that students in higher education institutions in Kerala have a moderate level of entrepreneurial intention.

5.3.2 The Level of Psychological Characteristics Related to Entrepreneurial Intention among the Students of Higher Education Institutions in Kerala

The following are the factors of psychological characteristics related to entrepreneurial intention.

(1) *Entrepreneurial attitude*
(2) *Entrepreneurial self-efficacy*
(3) *Entrepreneurial motivation*

H.0.5.2: There is no significant difference between the levels of entrepreneurial attitude among the students of HEIs in Kerala.

Table 5.2

The Levels of Entrepreneurial Attitude Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Entrepreneurial Attitude	320 (30.1%)	405 (38.1%)	338 (31.8%)	1063	11.325	<0.003**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of entrepreneurial attitude among the students of higher education institutions in Kerala is not equally distributed. So, the null hypothesis is rejected at the 1% level. It suggests that there is a significant difference regarding the entrepreneurial attitude of higher education students in Kerala.

It is evident from the table above that 30.1 per cent of students have a low level of entrepreneurial attitude. 38.1 per cent of students have a moderate level of entrepreneurial attitude. 31.8 per cent of higher education students have a high level of entrepreneurial attitude. The findings indicate that students pursuing higher education in Kerala exhibit a moderate level of entrepreneurial attitude.

H.0.5.3: There is no significant difference between the levels of entrepreneurial self-efficacy among the students of HEIs in Kerala

Table 5.3

The Level of Entrepreneurial Self-efficacy Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Entrepreneurial Self-efficacy	294 (27.7%)	449 (42.2%)	320 (30.1%)	1063	38.892	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of entrepreneurial self-efficacy of higher education students in Kerala is not equally distributed. Therefore, the null hypothesis is rejected at the 1% level. It states that there is a significant difference regarding the entrepreneurial self-efficacy of higher education students in Kerala.

From the above table, it can be observed that 27.7 per cent of students have a low level of entrepreneurial self-efficacy. 42.2 per cent of students have a moderate level of entrepreneurial self-efficacy. 30.1 per cent of higher education students have a high level of entrepreneurial self-efficacy. It shows that there is a moderate level of entrepreneurial self-efficacy among higher education students in Kerala. A moderate level of self-efficacy for entrepreneurship suggests that students of HEIs in Kerala have some level of confidence in their ability to start and manage a business venture. However, this level of self-efficacy may not be strong enough to overcome the challenges and obstacles that are often associated with entrepreneurship.

H.0.5.4: There is no significant difference between the levels of entrepreneurial motivation among the students of HEIs in Kerala

Table 5.4

The Level of Entrepreneurial Motivation Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Entrepreneurial Motivation	286 (26.9%)	505 (47.5%)	272 (25.6%)	1063	96.374	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of entrepreneurial motivation among higher education students in Kerala is not equally distributed. Hence, the null hypothesis is rejected at the 1% level. It indicates that there is a significant difference regarding entrepreneurial motivation among the students of HEIs in Kerala.

From the above table, it can be observed that 26.9 per cent of students have a low level of entrepreneurial motivation. 47.5 per cent of students have a moderate level of entrepreneurial motivation. 25.6 per cent of higher education students have a high level of entrepreneurial motivation. It shows that there is a moderate level of entrepreneurial motivation among the students of HEIs in Kerala. This suggests that students in Kerala may be interested in pursuing entrepreneurship as a career path or exploring entrepreneurial opportunities.

5.3.3 The Level of Entrepreneurial Personality Traits among the Students of Higher Education Institutions in Kerala

Following are the factors of personality traits related to entrepreneurial intention

(1) Risk-taking propensity
(2) Innovativeness
(3) Need for achievement

H.0.5.5 There is no significant difference between the levels of the risk-taking propensity among the students of HEIs in Kerala

Table 5.5
The Level of the Risk-taking Propensity Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Risk-taking Propensity	324 (30.5%)	459 (43.2%)	280 (26.3%)	1063	49.108	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of the risk-taking propensity of higher education students in Kerala is not equally distributed. So, the null hypothesis is rejected at the 1% level. It indicates that there is a significant difference regarding the risk-taking propensity among the students of HEIs in Kerala.

From the above table, it can be observed that 30.5 per cent of students have a low level of risk-taking propensity. 43.2 per cent of students have a moderate level of risk-taking propensity. 26.3 per cent of higher education students have a high level of risk-taking propensity. It shows that there is a moderate level of risk-taking propensity among the students of higher education institutions in Kerala.

H.0.5.6: There is no significant difference between the levels of innovativeness among the students of HEIs in Kerala

Table 5.6
The Level of Innovativeness Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Innovativeness	345 (32.5%)	349 (32.8%)	369 (34.7%)	1063	0.933	0.583^{NS}

Source: Primary data
NS denotes not significant

Since the P value is greater than 0.05, the null hypothesis is accepted. Therefore, there is no significant difference between the levels of innovativeness among the students of HEIs in Kerala**.**

H.0.5.7: There is no significant difference between the levels of need for achievement among the students of HEIs in Kerala

Table 5.7
The Level of Need for Achievement Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Need for Achievement	349 (32.8%)	345 (32.5%)	369 (34.7%)	1063	0.933	0.627 ^{NS}

Source: Primary data
^{NS} *denotes not significant*

Since the P value is greater than 0.05, the null hypothesis is accepted. Therefore, there is no significant difference between the levels of need for achievement among the students of higher education institutions in Kerala.

5.3.4 The Level of Perceived Environmental Support Related to Entrepreneurial Intention Among the Students of Higher Education Institutions in Kerala

Following are the factors of perceived environmental support related to entrepreneurial intention among the students of higher education institutions in Kerala

(1) Perceived educational support
(2) Perceived relational support
(3) Perceived structural support

H.0.5.8: There is no significant difference in the levels of perceived educational support among the students of HEIs in Kerala

Table 5.8
The Level of Perceived Education Support Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Perceived Educational Support	336 (31.6%)	464 (43.7%)	263 (24.7%)	1063	58.433	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of perceived educational support among the students of HEIs in Kerala is not equally distributed. So, the null hypothesis is rejected at the 1% level. This disparity suggests that college students in Kerala are not receiving uniform levels of educational support for entrepreneurship.

From the above table, it can be observed that 31.6 per cent of students get a low level of educational support. 43.7 per cent of students get a moderate level of educational support. 24.7 per cent of students in higher education get a high level of educational support. It demonstrates that students of higher education institutions in Kerala perceive a moderate level of educational support that can lead to starting a business in the future.

H.0.5.9: There is no significant difference in the levels of perceived relational support among the students of HEIs in Kerala

Table 5.9
The Level of Perceived Relational Support Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Perceived Relational Support	302 (28.4%)	493 (46.4%)	268 (25.2%)	1063	83.031	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of perceived relational support among the students of HEIs in Kerala is not equally distributed. So, the null hypothesis is rejected at the 1% level. It indicates that there exist significant difference regarding relational support among the students of higher education institutions in Kerala.

From the above table, it can be observed that 28.4 per cent of students perceive a low level of relational support. 46.4 per cent of students perceive a moderate level of relational support. 25.2 per cent of higher education students perceive a high level

of relational support. The findings suggest that students pursuing higher education in Kerala receive an adequate level of relationship support to some extent.

H.0.5.10: There is no significant difference in the levels of perceived structural support among the students of HEIs in Kerala

Table 5.10
The Level of Perceived Structural Support Among the Students of HEIs in Kerala

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Perceived Structural Support	268 (25.2%)	502 (47.2%)	293 (27.6%)	1063	93.191	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of perceived structural support among the students of HEIs in Kerala is not equally distributed. So, the null hypothesis is rejected at the 1% level. It indicates that there is a significant difference regarding structural support among the students of higher education institutions in Kerala.

From the above table, it can be observed that 25.2 per cent of students perceive a low level of structural support. 47.2 per cent of students perceive a moderate level of structural support. 27.6 per cent of higher education students perceive a high level of structural support. The study reveals that students pursuing higher education in Kerala receive a moderate amount of structural support. This support includes favourable state laws, simplified registration processes, ample economic opportunities, and easy access to loans. These factors can collectively contribute to creating a conducive environment for aspiring entrepreneurs, encouraging them to explore and establish their ventures. Although the level of support is moderate, it still presents promising prospects for students to pursue entrepreneurial ambitions within Kerala's higher education institutions.

5.4 The Extent of Entrepreneurial Intention and its Antecedents Among the Students of Higher Education Institutions in Kerala.

The extent of entrepreneurial intention and its antecedents among the students of HEIs in Kerala is assessed using one-sample t-test, mean, and standard deviation as statistical measures. The one-sample t-test helps compare the sample mean of entrepreneurial intention with a known or hypothesized population mean to determine if there is a significant difference. By conducting this test, we can ascertain whether the students' entrepreneurial intentions deviate significantly from the expected average level. The one-sample t-test allows us to detect any significant deviations from the expected average level, while the mean and standard deviation provide valuable insights into the central tendency and spread of entrepreneurial intentions within the student cohort.

H0.5.11: Entrepreneurial intention among the students of HEIs in Kerala is at an average level.

Table 5.11
One Sample t-test for Measuring the Entrepreneurial Intention Among the Students of HEIs in Kerala

Factor	Mean	Standard Deviation	Mean difference	T value	P Value
Entrepreneurial Intention	3.44	1.04	0.44	13.733	<0.001**

Source: Primary data
*** denotes significant at 1% level*

The null hypothesis is rejected at 1% level as the entrepreneurial intention among the students of higher education institutions in Kerala is not at an average level. It indicates that the entrepreneurial intentions of college students in Kerala are not equal to the average level. It may be above or below average. The students' entrepreneurial intentions, as measured by the mean score, indicate that they have above-average levels of entrepreneurial intentions. It indicates that students of higher education institutions in Kerala have entrepreneurial intentions that are significantly higher than average.

H0.5.12: Factors of psychological characteristics related to entrepreneurship among the students of HEIs in Kerala are at an average level

Table 5.12
One Sample t-test for Measuring the Psychological Characteristics Among the Students of HEIs in Kerala

Factors of Psychological Characteristics	Mean	Standard Deviation	Mean difference	T value	P Value	Ranking based on mean
Entrepreneurial Attitude	3.84	0.83	0.84	32.888	<0.001**	I
Entrepreneurial Self-efficacy	3.33	0.88	0.33	12.569	<0.001**	III
Entrepreneurial Motivation	3.78	0.79	0.78	32.050	<0.001**	II

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% level. It denotes that the factors of psychological characteristics as the antecedents of the entrepreneurial intentions of college students in Kerala, such as entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation, are not equal to the average level. Based on the mean score, it can be inferred that all mean scores of the factors of psychological characteristics are above average (>3). Therefore, it can be observed that the students of higher education institutions in Kerala have above-average levels of entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. Based on the mean scores, it is evident that among the students of higher education institutions in Kerala, entrepreneurial attitude (3.84) stands out as the most prominent factor influencing their entrepreneurial intention followed by entrepreneurial motivation (3.78) and entrepreneurial self-efficacy (3.33). These findings highlight the significance of possessing a positive entrepreneurial attitude, strong motivation, and self-belief in shaping students' aspirations towards entrepreneurship. The study indicates that fostering and nurturing these factors could play a crucial role in encouraging and promoting entrepreneurial intentions among students in the higher education system of Kerala.

H0.5.13: Factors of personality traits related to entrepreneurship among the students of HEIs in Kerala are at an average level

Table 5.13

One Sample t-test for Measuring the Personality Traits Related to Entrepreneurship Among the Students of HEIs in Kerala

Factors of Personality Traits	Mean	Standard Deviation	Mean difference	T value	P Value	Ranking based on mean
Risk-taking Propensity	3.63	0.78	0.63	26.499	<0.001**	III
Innovativeness	3.83	0.74	0.83	36.652	<0.001**	II
Need for Achievement	4.05	0.69	1.05	49.321	<0.001**	I

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% level. It denotes that the factors of personality traits related to entrepreneurship among the students of higher education institutions in Kerala, such as risk-taking propensity, innovativeness, and the need for achievement, are not equal to the average level. It may be either above or below average. Based on the mean score, it can be inferred that all mean scores of the factors of personality traits related to entrepreneurship, that is, risk-taking propensity, innovativeness, and need for achievement, are above average (>3). Therefore, it can be inferred that the students of higher education institutions in Kerala have above-average levels of risk-taking propensity, innovativeness, and need for achievement. On the basis of the mean score, it can also be inferred that the need for achievement (4.05) is the most prominent personality trait factor possessed by students of higher education institutions in Kerala, followed by innovativeness (3.83) and risk-taking propensity (3.63). These findings underscore the importance of personality traits in shaping the entrepreneurial mindset and potential. Encouraging and nurturing these personality traits may play a vital role in fostering entrepreneurship among students in higher education landscape.

H0.5.14: Factors of perceived environmental support related to entrepreneurship among the students of HEIs in Kerala are at an average level

Table 5.14

One Sample t-test for Measuring the Perceived Environmental Support Related to Entrepreneurship Among the Students of HEIs in Kerala

Factors of Perceived Environmental Support	Mean	Standard Deviation	Mean difference	T value	P Value	Ranking based on mean
Perceived Educational support	3.52	0.90	0.52	19.090	<0.001**	II
Perceived Relational support	3.65	0.89	0.65	23.653	<0.001**	I
Perceived Structural support	3.30	0.82	0.30	12.076	<0.001**	III

Source: Primary data
*** denotes significant at 1% level*

The null hypothesis is rejected at the 1% level since the P value is less than 0.01. It indicates that the perceived environmental support elements associated with entrepreneurship among students of higher education institutions in Kerala, such as perceived education support, perceived relational support, and perceived structural support, are not at the average level. It could be above or below average. Based on the mean score, it is possible to conclude that all the factors of perceived environmental support, that is, perceived education support, perceived relational support, and perceived structural support, are above average (>3). As a result, students of higher education institutions in Kerala perceive above-average levels of education support, relational support, and structural support. According to the mean score, the most prominent component that students of higher education institutions in Kerala perceive as support from their surroundings is relational support (3.65), followed by education support (3.52) and structural support (3.30).

5.5 Entrepreneurial Intention and its Antecedents Among the Students of Higher Education Institutions in Kerala, Across Their Socio-Demographic, Economic, and Background Factors

For the cross-analysis, the following socio-demographic, economic, and background aspects of students of higher education institutions in Kerala are taken into account:

1. *Gender*
2. *Stream of study*
3. *Family income*
4. *Family business background*
5. *Entrepreneurial course learned*
6. *Membership in entrepreneurship and innovation-oriented clubs or cells*
7. *Entrepreneurial activities conducted by the institution*
8. *Institutional entrepreneurship and innovation support*

5.5.1 Entrepreneurial Intention Among the Students of Higher Education Institutions in Kerala Across Their Socio-demographic, Economic, and Background Factors

H.0.5.15: There is no significant difference between male and female students of HEIs in Kerala with respect to entrepreneurial intention.

Table 5.15
t-test for Significant Differences Between Male and Female Students of HEIs in Kerala with Respect to Entrepreneurial Intention

Factor	Gender				T value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Entrepreneurial Intention	3.65	0.99	3.24	1.05	6.360	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% significance level with regard to the factor of entrepreneurial intention among the students of higher education institutions in Kerala. As a result, there is a significant difference between male and female students of higher education institutions in Kerala with respect to entrepreneurial intention. In other words, male and female students in higher education do not have the same entrepreneurial intentions. Male students reportedly exhibit more entrepreneurial intention than female students when

compared on the basis of the mean score. This finding is in line with many other studies that found male students to have greater entrepreneurial intention than female students (Khanal & Prajapati, 2023; Roy and Das, 2020; Tian et al., 2022; Nguyen, 2018; Bagheri & Lope Pihie, 2014; Zhao et al., 2005). The result also reflects the fact that female students in HEIs in Kerala are less likely than male students to start their own businesses.

H.0.5.16: There is no significant difference among the streams of study of higher education students in Kerala with respect to entrepreneurial intention.

Table 5.16
ANOVA for Significant Differences Among the Stream of Study of Higher Education Students in Kerala with Respect to Entrepreneurial Intention

Factors	Stream of Study				F value	P value
	Arts	Science	Commerce and Management	Engineering		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Entrepreneurial Intention	3.44 (0.92)	3.13 (1.08)	3.67 (0.86)	3.48 (1.09)	9.997	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% level with regard to the factor of entrepreneurial intention. The result indicates that there is a significant difference in entrepreneurial intention across the different streams of study among the students of higher education institutions in Kerala. The mean scores for entrepreneurial intention vary across the different streams of study, with commerce and management students having the highest mean score (3.67) and science students having the lowest mean score (3.13). The result indicates that the stream of study may have an influence on entrepreneurial intention among the students of higher education institutions in Kerala.

Post-hoc test of ANOVA

Even though the test results indicate that there is significant difference between the groups, this does not necessarily imply that every group is significantly distinct from the other groups. A 'Post Hoc' test utilizing the 'Tukey HSD' method is performed in

order to determine which groups are significantly distinct from one another. The outcome can be seen down below.

Table 5.17

Post Hoc Test for Significant Differences Among the Stream of Study of Higher Education Students in Kerala with Respect to Entrepreneurial Intention

Factors	Stream of Study (I)	Stream of study (J)	Mean difference (I-J)	Std. error	P value
Entrepreneurial Intention	Arts	Science	0.310	0.107	0.021*
		Commerce and Management	-0.227	0.111	<0.001**
		Engineering	-0.041	0.094	0.972 ^{NS}
	Science	Commerce and Management	-0.538	0.102	<0.001**
		Engineering	-0.351	0.083	<0.001**
	Commerce and Management	Engineering	0.186	0.088	0.152 ^{NS}

Source: Primary data
*Note: 1. ** refers to 1% significant*
*2. * refers to 5% significant*
3. ^{NS} refers to not significant

According to the results of the Tukey HSD post hoc test, there are the following significant differences among the streams of study of higher education students in Kerala in terms of entrepreneurial intention: Arts students are significantly different from science and commerce students. Science students are significantly different from commerce and engineering students. According to the mean score, arts students have more entrepreneurial intentions compared with science students. While comparing science students with commerce and management students, commerce and management students have more entrepreneurial intentions than others. Engineering students have more entrepreneurial intentions than science students. The Tukey HSD post hoc test result reveals that commerce and management students have more entrepreneurial intentions than others except engineering. Both students majoring in commerce and those in engineering have similar aspirations to start businesses.

H.0. 5.17: There is no significant difference among family income of higher education students in Kerala with respect to entrepreneurial intention.

Table 5.18
ANOVA for Significant Difference Among Family Income of Higher Education Students in Kerala with Respect to Entrepreneurial Intention

Factor	Monthly Family Income						F value	P value
	Up to 20,000	20,001 to 40,000	40,001 to 60,000	60,001 to 80,000	80,001 to 1,00,000	Above 1,00,000		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Entrepreneurial Intention	3.53 (0.96)	3.39 (1.00)	3.56 (1.03)	3.30 (1.18)	3.27 (1.20)	3.37 (1.09)	1.893	0.093^{NS}

Source: Primary data
Note: ^{NS} refers to not significant

Since the P value is greater than 0.05, the null hypothesis is accepted. It indicates that there is no significant difference among family income of higher education students in Kerala with respect to entrepreneurial intention. That is, students in Kerala with different monthly family incomes are the same in terms of their entrepreneurial intentions.

H.0.5.18: There is no significant difference between students of HEIs in Kerala who are having a family business background and not having family business background with respect to entrepreneurial intention.

Table 5.19
t-test for Entrepreneurial Intention: Students with and without Family Business Background

Factor	Family Business Background				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Intention	3.58	1.06	3.29	1.01	4.496	<0.001**

Source: Primary data
*Note: ** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% significance level for the factor of entrepreneurial intention among the students of higher education institutions in Kerala. It denotes that there is a significant difference between students of higher education institutions in Kerala with and without family business

backgrounds in terms of entrepreneurial intention. It means higher education students with and without family business backgrounds do not have the same entrepreneurial intentions. The mean score suggests that students with a family business background show stronger entrepreneurial intentions than students without a family business background.

H.0.5.19 There is no significant difference between the students of HEIs in Kerala who learned entrepreneurial courses and those who did not learn entrepreneurial courses with respect to entrepreneurial intention

Table 5.20
t-test for Entrepreneurial Intention: Students who Learned Entrepreneurial Courses and Those who did not Learn Entrepreneurial Courses

Factor	Entrepreneurial Courses Learned				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Intention	3.65	0.97	3.33	1.06	4.588	<0.001**

Source: Primary data
*Note: ** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% significance level for the factor of entrepreneurial intention among students of higher education institutions in Kerala. It denotes that there is a significant difference between higher education students who learned entrepreneurial subjects and those who did not learn entrepreneurial subjects with respect to entrepreneurial intention. Students in higher education who have studied entrepreneurship do not share the same aspirations regarding entrepreneurship as those who have not. The mean score indicates that students who took entrepreneurial courses have greater entrepreneurial intentions than students who did not take these courses. The findings suggest that exposure to entrepreneurial education positively influences students' aspirations and motivations towards entrepreneurship. The difference in mean scores indicates a notable impact of entrepreneurial courses in fostering a more entrepreneurial mindset among students of HEIs in Kerala. The results underscore the importance of incorporating entrepreneurial courses into the curriculum to encourage and nurture entrepreneurial intentions among the student population.

H.0.5.20: There is no significant difference between the students of HEIs in Kerala who are members of innovation and entrepreneurship-oriented clubs or cells and those who are not in terms of their entrepreneurial intention

Table 5.21

t-test for Entrepreneurial Intention: Students who are members and those who are not the members of I&E oriented Cells or Clubs

Factor	Membership in Innovation and Entrepreneurship-oriented Clubs or Cells				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Intention	3.67	1.00	3.39	1.04	3.256	<0.001**

Source: Primary data
*Note: ** denotes significant at 1% level*

The null hypothesis is rejected at the 1% level of significance for the entrepreneurial intention factor among students of higher education institutions in Kerala, as the P value is less than 0.01. Because of this, there is a significant difference between students who are members of innovation and entrepreneurship-oriented clubs or cells and those who are not in terms of their intention to start their own business. It highlights that students who are members of innovation and entrepreneurship-oriented cells or clubs and those who aren't have different aspirations regarding entrepreneurship. The study's mean scores indicate that students who are members of innovation and entrepreneurship-oriented cells or clubs exhibit significantly higher levels of entrepreneurial intentions compared to their peers who are not members of such groups. These findings highlight the positive impact of being part of these clubs or cells in fostering greater entrepreneurial aspirations among students of HEIs in Kerala. The difference in mean scores underscores the importance of these extracurricular activities in promoting and nurturing an entrepreneurial mindset among students, emphasizing the role of such platforms in encouraging entrepreneurial intentions within the higher education environment.

H.0.5.21: There is no significant difference between students from HEIs in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted with respect to entrepreneurial intention.

Table 5.22

t-test for Entrepreneurial Intention: Students from HEIs Where Entrepreneurial Activities are Conducted and those from Institutions Where Entrepreneurial Activities are not Conducted

Factor	Entrepreneurial Activities conducted by the Institution				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Intention	3.40	1.05	3.55	0.99	-1.844	0.065^{NS}

Source: Primary data
Note: ^{NS} denotes not significant

Since the P value is greater than 0.05, the null hypothesis about entrepreneurial intention among students based on entrepreneurial activities being conducted or not being conducted by the higher education institutions in Kerala is accepted. Therefore, there is no significant difference in entrepreneurial intention between students of higher education institutions in Kerala where the entrepreneurial activities are being conducted or not being conducted by the institution The study reveals that the degree of entrepreneurial intention among students of higher education institutions in Kerala remains relatively consistent, regardless of whether the institution engages in entrepreneurial activities. The results suggest that the presence or absence of entrepreneurial activities within the HEIs does not lead to a significant difference in the level of entrepreneurial intention among students. This indicates that the students' entrepreneurial aspirations are not strongly influenced by the existence of such activities in their educational environment. The result implies that other factors, such as personal characteristics, family background, or other factors, may play a more significant role in shaping students' entrepreneurial intentions.

H.0.5.22: There is no significant difference between students who receive I&E support from HEIs in Kerala and those who do not receive I&E support with respect to entrepreneurial intention.

Table 5.23
t-test for Entrepreneurial Intention: Students Who Receive I&E Support from HEIs in Kerala and Those who do not Receive I&E Support

Factor	Institutional Entrepreneurship and Innovation Support Received				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Intention	3.43	1.04	3.50	1.07	-0.741	0.459 ^{NS}

Source: Primary data
Note: ^{NS} denotes not significant

Since the P value is greater than 0.05, the null hypothesis is accepted with regard to entrepreneurial intention among the students who receive entrepreneurship and innovation support from higher education institutions in Kerala and those who do not receive institutional entrepreneurship and innovation support. Therefore, there is no significant difference between students of higher education institutions in Kerala who receive entrepreneurship and innovation support from colleges and those who do not receive such support in terms of their entrepreneurial goals. It is evident that students who receive entrepreneurship and innovation support from higher education institutions in Kerala and those who do not receive the support have the same entrepreneurial intentions.

5.5.2 Antecedents of Entrepreneurial Intention Among Students of Higher Education Institutions in Kerala Across Their Socio-Demographic, Economic and Background Factors

The antecedents of entrepreneurial intention are classified into three main categories: psychological characteristics, personality traits, and perceived environmental factors.

5.5.2.1 Psychological Characteristics Related to Entrepreneurial Intention Among the Students of Higher Education Institutions in Kerala Across Their Socio-Demographic, Economic, and Background Factors

Psychological characteristics encompass factors such as entrepreneurial attitude, motivation, and self-efficacy, which are believed to influence students' intentions towards entrepreneurship.

H.0.5.23: There exist no significant difference between male and female students of HEIs in Kerala with respect to factors of psychological characteristics related to entrepreneurial intention

Table 5.24

t-test for Significant Differences Between Male and Female Students with Respect to Factors of Psychological Characteristics Related to Entrepreneurial Intention

Factors of Psychological Characteristics	Gender				T value	P Value
	Male		Female			
	Mean	SD	Mean	SD		
Entrepreneurial Attitude	3.95	0.81	3.74	0.84	4.136	<0.001**
Entrepreneurial Self-efficacy	3.51	0.88	3.17	0.84	6.314	<0.001**
Entrepreneurial Motivation	3.87	0.79	3.70	0.79	3.456	<0.001**

Source: Primary data
*Note: ** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% significance level for the factors of psychological characteristics related to entrepreneurial intention among students of higher education institutions in Kerala, such as entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. The result indicates that there is a significant difference between male and female students in terms of the above-mentioned psychological characteristics related to entrepreneurial intention. It denotes that there are gender differences among students of higher education institutions in Kerala in terms of entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation, which are part of psychological characteristics relating to entrepreneurial intention. Male students, as measured by the mean score, demonstrate a higher entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation in comparison with female students. Similar result was found in a meta-analysis study conducted by Haus et al (2013) in which women expressed lower attitude and self-efficacy towards entrepreneurship.

H.0. 5.24: There is no significant difference among stream of study of higher education students in Kerala concerning psychological characteristics related to entrepreneurial intention

Table 5.25

ANOVA for Significant Differences Among Stream of Study of Students with Respect to Factors of Psychological Characteristics Related to Entrepreneurial Intention

Factors of Psychological Characteristics	Stream of Study				F value	P value
	Arts	Science	Commerce and management	Engineering		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Entrepreneurial Attitude	3.86 (0.70)	3.64 (0.89)	4.00 (0.75)	3.86 (0.86)	6.430	<0.001**
Entrepreneurial Self-efficacy	3.39 (0.77)	3.19 (0.87)	3.49 (0.82)	3.32 (0.92)	4.097	0.007**
Entrepreneurial Motivation	3.81 (0.75)	3.68 (0.74)	3.94 (0.73)	3.76 (0.85)	3.908	0.009**

Source: Primary data
*Note: ** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% level with regard to factors of psychological characteristics with regard to entrepreneurial intention. Thus, there is a significant difference among streams of study among higher education students in Kerala with respect to psychological characteristics relating to entrepreneurial intention. Psychological characteristic factors include entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. This demonstrates that there are disparities among students of higher education institutions in Kerala based on their programme of study.

Post-hoc test of ANOVA

Table: 5.26

Post hoc Test for Significant Differences Among the Streams of Study of Students with Respect to Factors of Psychological Characteristics Relating to Entrepreneurial Intention

Factors of Psychological Characteristics	Stream of study (I)	Stream of study (J)	Mean difference (I-J)	Std. error	P value
Entrepreneurial Attitude	Arts	Science	0.219	0.086	0.057^{NS}
		Commerce and management	-0.131	0.090	0.464 ^{NS}
		Engineering	-0.000	0.076	1.000 ^{NS}
	Science	Commerce and management	-0.350	0.082	<0.001**
		Engineering	-0.219	0.067	0.006**
	Commerce and management	Engineering	0.130	0.071	0.259 ^{NS}
Entrepreneurial Self-efficacy	Arts	Science	0.199	0.091	0.128 ^{NS}
		Commerce and management	-0.095	0.094	0.746 ^{NS}
		Engineering	0.067	0.080	0.832 ^{NS}
	Science	Commerce and management	-0.295	0.086	0.004**
		Engineering	-0.131	0.070	0.246 ^{NS}
	Commerce and Management	Engineering	0.163	0.075	0.131 ^{NS}
Entrepreneurial Motivation	Arts	Science	0.131	0.082	0.386 ^{NS}
		Commerce and management	-0.129	0.086	0.432 ^{NS}
		Engineering	0.049	0.072	0.905 ^{NS}
	Science	Commerce and management	-0.261	0.078	0.005**
		Engineering	-0.082	0.064	0.576 ^{NS}
	Commerce and Management	Engineering	0.179	0.068	0.043*

Source: Primary data

*Note: 1. ** refers to 1% significant*

*2. * refers to 5% significant*

3. ^{NS} refers to not significant

According to the results of the Tukey HSD post hoc test, there exist significant differences among the streams of study of higher education students in Kerala in terms of psychological characteristics relating to entrepreneurial intention. In the case of entrepreneurial attitude, science students significantly differ from commerce and management students and engineering students. In terms of entrepreneurial self-efficacy, science students significantly differ from commerce and management students. While considering entrepreneurial motivation, science students significantly differ from commerce and management students, and at the same time, commerce and management students differ significantly from engineering students.

According to the mean score, commerce and management students have a more entrepreneurial attitude than science students. When comparing science students and engineering students, engineering students have a more entrepreneurial attitude than science students. Commerce and management students have more entrepreneurial self-efficacy than science students. In the case of entrepreneurial motivation, commerce and management students have more entrepreneurial motivation than science and engineering students.

It can be concluded that commerce and management students have more psychological characteristics than science and engineering students. That is, students of commerce and management have more attitude towards entrepreneurship, entrepreneurial self-efficacy, and entrepreneurial motivation than students studying other programmes. The study provides valuable insights into how different academic backgrounds may influence students' entrepreneurial mindset and potential for future entrepreneurial pursuits. Recognizing the varying levels of entrepreneurial attitude, self-efficacy, and motivation among different student groups can inform targeted interventions and support programs. Institutions can tailor their entrepreneurship courses and activities to cater to the specific needs of students from different academic background

H.0.5.25 There exist no significant difference among family income of students in HEIs in Kerala with respect to factors of psychological characteristics relating to entrepreneurial intention

Table 5.27

ANOVA for Significant Difference Among Family Income of Students with Respect to Factors of Psychological Characteristics Relating to Entrepreneurial Intention

Factors of Psychological Characteristics	Monthly Family Income						F value	P value
	Up to 20,000	20,001 to 40,000	40,001 to 60,000	60,001 to 80,000	80,001 to 1,00,000	Above 1,00,000		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Entrepreneurial Attitude	3.84 (0.81)	3.84 (0.84)	3.97 (0.76)	3.80 (0.91)	3.68 (0.94)	3.80 (0.83)	1.559	0.169^{NS}
Entrepreneurial Self-efficacy	3.35 (0.86)	3.31 (0.85)	3.43 (0.86)	3.19 (0.98)	3.28 (0.91)	3.35 (0.89)	1.035	0.395 ^{NS}
Entrepreneurial Motivation	3.82 (0.76)	3.74 (0.81)	3.87 (0.75)	3.62 (0.88)	3.77 (0.81)	3.78 (0.81)	1.485	0.192 ^{NS}

Source: Primary data
Note: ^{NS} refers to not significant

Since the P value is greater than 0.05, the null hypothesis is accepted. This indicates that there is no statistically significant difference in the monthly family income of higher education students in Kerala concerning the factors of psychological characteristics related to entrepreneurial intention, including entrepreneurial attitude, self-efficacy, and motivation. This suggests that students with varying monthly family incomes demonstrate similar levels of these psychological factors, irrespective of their economic backgrounds. The lack of significant differences implies that students from diverse economic backgrounds exhibit comparable entrepreneurial mindsets and potential. This is promising as it suggests that the psychological determinants of entrepreneurial intention remain consistent across different economic background.

H.0.5.26*: *There exist no significant difference between students of HEIs in Kerala who have a family business background or not with respect to psychological characteristics relating to entrepreneurial intention.

Table 5.28

t-test for Significant Differences Between Students from Family Business Background or not with Respect to Psychological Characteristics Relating to Entrepreneurial Intention

Factors of Psychological Characteristics	Family Business Background				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Attitude	3.93	0.85	3.75	0.81	3.612	<0.001**
Entrepreneurial Self-efficacy	3.43	0.90	3.23	0.84	3.707	<0.001**
Entrepreneurial Motivation	3.89	0.79	3.67	0.78	4.586	<0.001**

Source: Primary data
*Note: ** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% significance level for the factors of psychological characteristics of entrepreneurial intention among higher education students in Kerala. There is a significant difference between students who have family business backgrounds and those who do not in terms of the psychological characteristics relating to entrepreneurial intention. It means there are variations between students of higher education institutions in Kerala who have a family business background or not in terms of entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. Based on the mean scores, students with family business backgrounds show higher levels of entrepreneurial attitudes, entrepreneurial self-efficacy, and entrepreneurial motivation compared to their peers who do not have any family business experience. These findings suggest that students with family business backgrounds are more likely to possess positive attitudes towards entrepreneurship, stronger belief in their abilities to succeed as entrepreneurs, and greater motivation to pursue entrepreneurial ventures. The results highlight the potential influence of family business exposure in nurturing and shaping students' entrepreneurial mindset and aspirations

H.0.5.27: ***There exist no significant difference between the students of HEIs in Kerala who learned entrepreneurial courses and those who did not learn entrepreneurial courses with respect to psychological characteristics related to entrepreneurial intention.***

Table 5.29

t-test for Significant Differences Between the Students who Learned and not Learned Entrepreneurial Courses with Respect to Psychological Characteristics Related to Entrepreneurial Intention

Factors of Psychological Characteristics	Entrepreneurial Courses Learned				T Value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Attitude	4.00	0.79	3.77	0.84	4.192	<0.001**
Entrepreneurial Self-efficacy	3.46	0.89	3.27	0.86	3.307	<0.001**
Entrepreneurial Motivation	3.88	0.78	3.73	0.80	2.824	0.005**

Source: Primary data
*Note: ** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at 1% significance level for the factors of psychological characteristics such as entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation among the students of higher education institutions in Kerala. There is a significant difference between students who have learned about entrepreneurship and those who have not, as a result of the entrepreneurial intention-related psychological characteristics described above. Alternatively, there are differences between college students who have studied entrepreneurial topics and those who have not in terms of entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation.

According to the mean scores, students who have studied entrepreneurial subjects exhibit significantly better entrepreneurial attitudes, higher entrepreneurial self-efficacy, and greater entrepreneurial motivation compared to students who haven't taken entrepreneurial courses. These findings suggest that exposure to entrepreneurial education positively influences students' perceptions, beliefs, and motivations towards entrepreneurship.

H.0.5.28: There is no significant difference between the students of HEIs in Kerala who have membership in I&E-oriented clubs or cells and those who don't have membership in I&E-oriented clubs or cells with respect to psychological characteristics related to entrepreneurial intentions.

Table 5.30
t-test for Significant Differences Between the Students Who Have Membership in I&E-Oriented Clubs or Cells and Those Who don't Have Membership with Respect to Psychological Characteristics Related to Entrepreneurial Intentions

Factors of Psychological Characteristics	Membership in Innovation and Entrepreneurship-Oriented Clubs or Cells				T Value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Attitude	4.02	0.83	3.81	0.83	3.147	0.002**
Entrepreneurial Self-efficacy	3.56	0.84	3.29	0.88	3.783	<0.000**
Entrepreneurial Motivation	3.91	0.85	3.75	0.78	2.454	0.004*

Source: Primary data
*Note: 1.** denotes significant at 1% level*
*2. * denotes significant at 5% level*

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% significance level for the factors of psychological characteristics related to entrepreneurial intention among the students of higher education institutions in Kerala. There is a significant difference between students who are members of innovation and entrepreneurship-oriented cells or clubs and those who are not. Hence, there are variations between college students who belong to IEDC, IIC, and ED Clubs and those who do not in terms of their entrepreneurial attitude and self-efficacy. Regarding entrepreneurial motivation, the P value is less than 0.05. So, the null hypothesis is rejected at the 5% level. This clearly states that there is a significant difference between the students who are members of innovation and entrepreneurship-oriented cells or clubs and those who are not in terms of entrepreneurial motivation. According to the mean score, students who are members of innovation and entrepreneurship-oriented cells or clubs have a stronger entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation than students who are not members.

H.0.5.29**: **There is no significant difference between students from HEIs in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted with respect to psychological characteristics of entrepreneurial intention

Table 5.31
t-test for Significant Difference Between Students from HEIs Where Entrepreneurial Activities are Conducted and not Conducted with Respect to Psychological Characteristics of Entrepreneurial Intention

Factors of Psychological Characteristics	Entrepreneurial Activities Conducted by the Institution				T Value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Attitude	3.91	0.89	3.82	0.82	-1.462	0.144^{NS}
Entrepreneurial Self-efficacy	3.44	0.87	3.31	0.87	-1.985	0.047*
Entrepreneurial Motivation	3.76	0.83	3.78	0.78	0.375	0.708^{NS}

Source: Primary data
*Note: 1. * denotes significant at 5% level*
2. ^{NS} denotes not significant

Since the P value is less than 0.05, the null hypothesis is rejected at a 5% significance level for the entrepreneurial self-efficacy of psychological characteristics of entrepreneurial intention among the students of higher education institutions in Kerala. Entrepreneurial self-efficacy proved to have a significant difference between students from higher education institutions in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted. Regarding entrepreneurial attitude and entrepreneurial motivation, the P value is greater than 0.05. So, the null hypothesis is accepted. This clearly states that there is no significant difference between students from higher education institutions in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted in terms of entrepreneurial attitude and entrepreneurial motivation. While students from institutions where entrepreneurial activity have been regularly conducted have higher entrepreneurial self-efficacy than those from institutions where entrepreneurial activity has been least conducted, as measured by the mean score.

H.0.5.30: ***There is no significant difference between students who receive I&E support from HEIs in Kerala and those who do not receive I&E support with respect to factors of psychological characteristics relating to entrepreneurial intention***

Table 5.32

t-test for Significant Differences Between Students Who Receive I&E Support from HEIs in Kerala and Those who do not Receive I&E Support with Respect to Factors of Psychological Characteristics of Entrepreneurial Intention

Factors of Psychological Characteristics	Institutional Innovation and Entrepreneurship Support Received				T Value	P value
	Yes		No			
	Mean	SD	Mean	SD		
Entrepreneurial Attitude	3.99	0.82	3.82	0.83	-2.173	0.030*
Entrepreneurial Self-efficacy	3.44	0.81	3.32	0.88	-1.517	0.130^{NS}
Entrepreneurial Motivation	3.74	0.85	3.79	0.79	0.590	0.555^{NS}

Source: Primary data
*Note: 1. * denotes significant at 5% level*
2. ^{NS} denotes not significant

Since the P value is less than 0.05, the null hypothesis is rejected at a 5% significance level for the entrepreneurial attitude among higher education students in Kerala. There are significant differences between students who receive entrepreneurship and innovation support from higher education institutions in Kerala and those who do not receive entrepreneurship and innovation support with regard to entrepreneurial attitude. Regarding entrepreneurial self-efficacy and entrepreneurial motivation, the P value is greater than 0.05. So, the null hypothesis is accepted. This demonstrates that there is no significant difference between students who receive entrepreneurship and innovation support from higher education institutions in Kerala and those who do not receive entrepreneurship and innovation support in terms of entrepreneurial self-efficacy and entrepreneurial motivation.

Based on the mean score, students who receive entrepreneurship and innovation support from higher education institutions have a more entrepreneurial attitude than those who do not receive entrepreneurship and innovation support.

5.5.2.2 Personality Traits Associated with Entrepreneurial Intention among Students of HEIs in Kerala Across Their Socio-Demographic, Economic, and Background Factors

Personality traits include dimensions like need for achievement, innovativeness, and risk-taking propensity, which are thought to shape the entrepreneurial inclinations.

H.0.5.31: There is no significant difference between male and female students concerning personality traits related to entrepreneurial intention.

Table 5.33

t-test for Significant Differences Between Male and Female Students Concerning Personality Traits Related to Entrepreneurial Intention

Entrepreneurial Personality Traits	Gender				T Value	P value
	Male		Female			
	Mean	SD	Mean	SD		
Risk-taking Propensity	3.78	0.74	3.50	0.79	5.845	<0.001**
Innovativeness	3.96	0.70	3.72	0.76	5.326	<0.001**
Need for Achievement	4.12	0.66	3.98	0.71	3.436	<0.001**

Source: Primary data
*Note: ** denotes significant at 1% level*

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% significance level for the factors of personality traits consisting of risk-taking propensity, innovativeness, and the need for achievement among the students of higher education institutions in Kerala. There is a significant difference between male and female students of higher education institutions in Kerala regarding entrepreneurial personality traits. So, there are differences between male and female college students in terms of risk-taking propensity, innovativeness, and the need for achievement. Based on the mean scores, male students demonstrate higher levels of entrepreneurial personality traits compared to female students. This suggests that male students exhibit a more pronounced risk-taking propensity, greater innovativeness, and a stronger need for achievement compared to their female counterparts. The higher mean scores indicate that male students may possess attributes that are

traditionally associated with entrepreneurship, such as a willingness to take risks, a propensity for innovation, and a strong drive to achieve their goals.

H.0.5.32: There is no significant difference among stream of study of higher education students in Kerala with respect to factors of entrepreneurial personality traits

Table 5.34

ANOVA for Significant Differences Among Stream of Study of Students with Respect to Factors of Entrepreneurial Personality Traits

Entrepreneurial Personality Traits	Stream of Study				F value	P value
	Arts	Science	Commerce and management	Engineering		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Risk-Taking Propensity	3.64 (0.80)	3.50 (0.82)	3.63 (0.81)	3.69 (0.73)	3.031	0.029*
Innovativeness	3.76 (0.78)	3.77 (0.71)	3.79 (0.80)	3.90 (0.72)	2.713	0.044*
Need for Achievement	4.01 (0.69)	3.99 (0.68)	4.04 (0.72)	4.08 (0.68)	1.142	0.331^{NS}

Source: Primary data
*Note: 1. * refers to 5% significant*
3. ^{NS} refers to not significant

The results indicate that there is a significant difference among streams of study of higher education students in Kerala concerning personality traits related to entrepreneurial intention, such as risk-taking propensity and innovativeness. Since the p-value is less than 0.05, the null hypothesis is rejected at a 5% significance level, confirming that the streams of study have a notable impact on these personality traits. This suggests that students from different academic backgrounds exhibit varying levels of risk-taking propensity and innovativeness, which may influence their entrepreneurial intentions differently. On the other hand, in the case of the need for achievement factor of personality traits related to entrepreneurial intention, the p-value is greater than 0.05. Consequently, the null hypothesis is accepted, indicating that there is no significant difference among streams of study in terms of the need for achievement. This implies that students from various academic disciplines

demonstrate similar levels of the need for achievement, regardless of their field of study, with regard to their entrepreneurial intentions.

Post-hoc test of ANOVA

Table 5.35

Post Hoc Test for Significant Differences Among the Stream of Study of Students with Respect to Factors of Entrepreneurial Personality Traits

Entrepreneurial Personality Traits	Stream of study (I)	Stream of study (J)	Mean difference (I-J)	Std. error	P value
Risk-taking propensity	Arts	Science	0.135	0.081	0.346^{NS}
		Commerce and Management	0.001	0.084	1.000 ^{NS}
		Engineering	-0.055	0.071	0.868 ^{NS}
	Science	Commerce and Management	-0.133	0.077	0.310 ^{NS}
		Engineering	-0.190	0.063	0.014**
	Commerce and Management	Engineering	-0.056	0.067	0.833 ^{NS}
Innovativeness	Arts	Science	-0.012	0.077	0.140 ^{NS}
		Commerce and Management	-0.038	0.080	0.965 ^{NS}
		Engineering	-0.146	0.068	0.018*
	Science	Commerce and Management	-0.025	0.073	0.986 ^{NS}
		Engineering	-0.133	0.060	0.118 ^{NS}
	Commerce and Management	Engineering	-0.108	0.063	0.327 ^{NS}

Source: Primary data
Note: ^{NS} refers to not significant;
** denotes 5% significance*

According to the results of the Tukey HSD post hoc test, when it comes to the propensity parameters for taking risks, there are considerable variations between the students majoring in science and those majoring in engineering. Students majoring in the arts and those majoring in engineering are distinct from one another in terms of their innovativeness. The mean scores indicate that students majoring in engineering have a higher level of innovativeness and risk-taking propensity than students majoring in arts and science. Understanding these differences can inform tailored

educational interventions and support programs to foster a more diverse and inclusive entrepreneurial ecosystem within Kerala's higher education institutions.

H.O.5.33: There is no significant difference among family income of Higher Education Students in Kerala with Respect to Factors of Personality Traits of Entrepreneurial Intention.

Table 5.36

ANOVA for Significant Differences Among Monthly Family Income of Students with Respect to Factors of Entrepreneurial Personality Traits

Entrepreneurial Personality Traits	Monthly Family Income						F value	P value
	Up to 20,000	20,001 to 40,000	40,001 to 60,000	60,001 to 80,000	80,001 to 1,00,000	Above 1,00,000		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Risk-taking Propensity	3.63 (0.77)	3.55 (0.77)	3.72 (0.74)	3.66 (0.89)	3.49 (0.86)	3.77 (0.73)	2.459	0.03*
Innovativeness	3.82 (0.74)	3.79 (0.76)	3.93 (0.69)	3.78 (0.83)	3.76 (0.74)	3.89 (0.72)	1.217	0.29^{NS}
Need for Achievement	4.02 (0.74)	4.07 (0.64)	4.06 (0.69)	3.97 (0.74)	4.00 (0.70)	4.10 (0.65)	0.638	0.67^{NS}

Source: Primary data
*Note: 1. * refers to 5% significant*
3. ^{NS} refers to not significant

Since the P value is lower than 0.05, we may conclude that the null hypothesis cannot be supported at the 5% confidence level with regard to the risk-taking propensity factor of entrepreneurial intention personality traits. Therefore, there is a significant difference between the monthly family income of higher education students in Kerala with regard to the element of personality traits associated with entrepreneurial aim such as risk-taking tendency. When examining the personality traits of innovativeness and need for achievement, it was found that the P value exceeds 0.05, leading to the acceptance of the null hypothesis. The findings suggest that there is no statistically significant variation in the monthly family income of higher education students in

Kerala in relation to the personality traits of innovativeness and need for achievement, which are known to influence entrepreneurial intention.

Post-hoc test of ANOVA

Table 5.37
Post Hoc Test for Significant Difference Among the Family Income of Students with Respect to Factors of Entrepreneurial Personality Traits

Factors	Monthly family income (I)	Monthly family income (J)	Mean difference (I-J)	Std. error	P value
Risk Taking Propensity	Up to 20,000	20,001 to 40,000	0.075	0.065	0.859 NS
		40,001 to 60,000	-0.091	0.075	0.831 NS
		60,001 to 80,000	-0.032	0.092	0.999 NS
		80,001 to 1,00,000	0.133	0.098	0.755 NS
		Above 1,00,000	-0.144	0.080	0.463 NS
	20,001 to 40,000	40,001 to 60,000	-0.166	0.075	0.233 NS
		60,001 to 80,000	-0.107	0.093	0.856 NS
		80,001 to 1,00,000	0.058	0.098	0.992 NS
		Above 1,00,000	-0.220	0.080	0.059NS
	40,001 to 60,000	60,001 to 80,000	0.058	0.100	0.992 NS
		80,001 to 1,00,000	0.225	0.105	0.274 NS
		Above 1,00,000	-0.053	0.088	0.991 NS
	60,001 to 80,000	80,001 to 1,00,000	0.166	0.119	0.728 NS
		Above 1,00,000	-0.112	0.104	0.890 NS
	80,001 to 1,00,000	Above 1,00,000	-0.278	0.109	0.049*

Source: Primary data
Note: NS refers to not significant;
** denotes 1% significance*

Based on the findings of the Tukey HSD post hoc analysis, a notable distinction was observed in the monthly family income of higher education students in Kerala with regard to their personality traits associated with entrepreneurial intention. Specifically, a significant difference was detected between the family income in between of 80,001 to 1,00,000 and that of above 1,00,000. The results indicate that students from families with an income above 1,00,000 exhibit a greater level of risk propensity compared to

those from families with an income ranging from 80,001 to 1,00,000. This is reflected in the higher mean scores observed for this factor among the former group.

H.0.5.34: There is no significant difference between students of HEIs in Kerala having a family business background or not with respect to factors of personality traits related to entrepreneurial intention

Table 5.38

t-test for Significant Differences Between Students Having a Family Business Background or not with Respect to Factors of Entrepreneurial Personality Traits

Entrepreneurial Personality Traits	Family Business Background				T Value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Risk-taking Propensity	3.68	0.78	3.58	0.78	2.024	0.043*
Innovativeness	3.86	0.76	3.80	0.72	1.280	0.201^{NS}
Need for Achievement	4.09	0.72	4.00	0.66	1.940	0.053 ^{NS}

Source: Primary data
Note: 1. denotes significant at 5% level*
2. ^{NS} denotes not significant

Since the P value is less than 0.05, the null hypothesis is rejected at the 5% significance level for the factor of personality traits associated with entrepreneurial intention among higher education students in Kerala, which is risk-taking propensity. There is a significant difference between higher education students in Kerala with and without family business roots in terms of risk-taking propensity under the construct of personality traits. In the case of innovativeness and the need for achievement, the P value is greater than 0.05. Consequently, the null hypothesis is accepted. This reveals that there is no significant difference between students of higher education institutions in Kerala with and without family business backgrounds in terms of innovativeness and the need for achievement.

In terms of entrepreneurial intention, students with family business backgrounds exhibit a higher risk-taking propensity than students without family business backgrounds, in accordance with the mean score.

H.0.5.35: There is no significant difference between the students who have learned entrepreneurial courses and those who have not learned entrepreneurial courses concerning personality traits related to entrepreneurial intention

Table 5.39
t-test for Significant Differences Between the Students who have Learned Entrepreneurial Courses and Those who have not Concerning Entrepreneurial Personality Traits

Entrepreneurial Personality Traits	Entrepreneurial Course Learned				T Value	P value
	Yes		No			
	Mean	SD	Mean	SD		
Risk-taking Propensity	3.68	0.78	3.61	0.78	1.489	0.137^{NS}
Innovativeness	3.93	0.74	3.79	0.74	2.801	0.005**
Need for Achievement	4.11	0.69	4.02	0.69	2.061	0.040*

Source: Primary data
*Note: 1. ** denotes significant at 1% level*
*2. * denotes significant at 5% level*
3. ^{NS} denotes not significant

The study's findings reveal a significant difference in innovativeness among the students of HEIs in Kerala who have learned about entrepreneurial topics and those who have not. With a p-value less than 0.01, the null hypothesis is rejected at the 1% significance level, indicating that the two groups exhibit distinct levels of innovativeness. This reveals that exposure to entrepreneurial topics through education influences students' innovativeness, potentially shaping their ability to think creatively and drive innovation in entrepreneurial pursuits. In terms of the need for achievement, the P value is less than 0.05. Consequently, the null hypothesis is rejected at the 5% significant level for the factor of personality traits associated with entrepreneurial intention among the students of HEIs in Kerala. Hence, there is a significant difference between students of HEIs in Kerala who learned about entrepreneurial topics and those who did not learn about such topics in terms of the need for achievement. In the case of risk-taking propensity, the P value is greater than 0.05. Consequently, the null hypothesis is accepted. This reveals that there is no significant difference between students of HEIs in Kerala who learned about entrepreneurial topics and those who did not learn about such topics in terms of risk-taking propensity.

Based on the mean score, students who learned about entrepreneurial topics have greater innovativeness and a greater need for achievement than students who did not learn about entrepreneurship.

H.0.5.36: There is no significant difference between the students of HEIs in Kerala who have membership in I&E-oriented clubs or cells and those who don't have membership concerning entrepreneurial personality traits

Table 5.40

t-test for Significant Differences Between the Students who Have Membership in I&E-Oriented Clubs or Cells and Those who don't Have Membership Concerning Entrepreneurial Personality Traits

Entrepreneurial Personality Traits	Membership in Innovation and Entrepreneurship-Oriented Clubs or Cells				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Risk-taking Propensity	3.78	0.81	3.60	0.77	2.765	0.006**
Innovativeness	3.98	0.69	3.80	0.75	2.936	0.003**
Need for Achievement	4.15	0.75	4.02	0.68	2.230	0.026*

Source: Primary data
*Note: 1. ** denotes significant at 1% level*
*2. * denotes significant at 5% level*

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% significance level for the factors of entrepreneurial personality traits such as innovativeness and risk-taking propensity among the students of HEIs in Kerala. There are significant differences in risk-taking propensity and innovativeness between students who are members of entrepreneurship and innovation-oriented clubs or cells and those who are not. In terms of need for achievement, the P value is less than 0.05. Consequently, the null hypothesis is rejected at the 5% significant level for the factor of personality traits, that is, the need for achievement, among the students of HEIs in Kerala. Hence, there is a significant difference in the need for achievement between the students of HEIs in Kerala who are members of I&E-oriented clubs or cells and those who are not.

Students who are members of I&E-oriented clubs or cells, that is, IEDC, IIC, and ED Clubs tend to take more risks, are more creative and have a higher need for achievement than students who do not belong to these clubs or cells, according to the mean score.

H.0.5.37: There is no significant difference between students from HEIs in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted with respect to entrepreneurial personality traits.

Table 5.41

t-test for significant differences between students from HEIs where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted with respect to entrepreneurial personality traits

Entrepreneurial Personality Traits	Entrepreneurial Activities Conducted by the Institution				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Risk-taking Propensity	3.62	0.79	3.67	0.74	-0.850	0.395 ^{NS}
Innovativeness	3.83	0.74	3.85	0.73	-0.479	0.632 ^{NS}
Need for Achievement	4.07	0.68	3.97	0.71	1.818	0.069 ^{NS}

Source: Primary data
Note: ^{NS} denotes not significant

The result of the study indicates that there is no significant difference in entrepreneurial personality traits, including risk-taking propensity, innovativeness, and the need for achievement, between students from higher education institutions in Kerala where entrepreneurial activities are conducted and those from institutions where such activities are not conducted. With a p-value greater than 0.05, the null hypothesis is accepted, suggesting that the presence or absence of entrepreneurial activities within the institutions does not lead to significant variations in these personality traits among students. These findings imply that regardless of whether the higher education institutions have active entrepreneurial initiatives or not, students demonstrate similar levels of risk-taking propensity, innovativeness, and the need for achievement concerning their entrepreneurial intentions.

H.0.5.38: There is no significant difference between students who receive I&E support from HEIs in Kerala and those who do not receive I&E support concerning personality traits related to entrepreneurial intention.

Table 5.42
t-test for Significant Difference Between Students Who Receive I&E Support from HEIs and Those who do not Receive I&E Support Concerning Entrepreneurial Personality Traits

Entrepreneurial Personality Traits	Institutional Entrepreneurship and Innovation Support Received				T Value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Risk-taking Propensity	3.63	0.78	3.66	0.77	-0.478	0.633^{NS}
Innovativeness	3.83	0.75	3.88	0.70	-0.705	0.481 ^{NS}
Need for Achievement	4.05	0.70	4.02	0.64	0.461	0.645 ^{NS}

Source: Primary data
Note: ^{NS} denotes not significant

Given that the P-value is greater than 0.05, the null hypothesis is accepted for the entrepreneurial personality traits factors like risk-taking propensity, innovativeness, and the need for achievement among the students of higher education institutions in Kerala. This specifies that there is no significant difference between students of higher education institutions in Kerala who receive entrepreneurship and innovation support from the college and those who do not receive entrepreneurship and innovation support with respect to entrepreneurial personality traits such as the need for achievement, risk-taking propensity, and innovativeness. Understanding this lack of significant difference in entrepreneurial personality traits with respect to entrepreneurship and innovation support can inform educators and policymakers about the importance of considering a comprehensive approach to fostering entrepreneurial mindsets. While college support programs are valuable, a broader focus on cultivating a culture of entrepreneurship and providing opportunities for students to develop these traits outside the classroom may be equally crucial.

5.5.2.3 Perceived Environmental Support for the Entrepreneurial Intention Among Higher Education Students in Kerala Across Their Socio-Demographic, Economic and Background Factors

Perceived environmental factors involve aspects like educational support, relational support and structural support which are perceived to play a role in fostering or hindering students' entrepreneurial intentions.

H.0.5.39: There is no significant difference between male and female students of HEIs in Kerala with respect to factors of perceived environmental support related to entrepreneurial intention

Table 5.43

t-test for Significant Differences Between Male and Female Students with Respect to Factors of Perceived Environmental Support Related to Entrepreneurial Intention

Factors of Perceived Environmental Support	Gender				T value	P Value
	Male		Female			
	Mean	SD	Mean	SD		
Perceived Educational Support	3.45	0.96	3.59	0.83	-2.637	0.008**
Perceived Relational Support	3.67	0.86	3.63	0.92	0.615	0.539^{NS}
Perceived Structural Support	3.21	0.88	3.38	0.75	-3.241	<0.001**

Source: Primary data

*Note: 1. ** denotes significant at 1% level*

2. ^{NS} denotes not significant

Since the P value is less than 0.01, the null hypothesis is rejected at a 1% significance level for the factors of environmental support related to entrepreneurial intention, such as perceived education support and perceived structural support among the students of higher education institutions in Kerala. It denotes that there is a significant difference between male and female students of higher education institutions in Kerala regarding perceived education support and perceived structural support. In the case of relational support, the P value is greater than 0.05. Consequently, the null hypothesis is accepted. This reveals that there is no significant difference between male and female students of higher education institutions in Kerala in terms of relational support associated with entrepreneurial intention. Based on the mean score, compared to male students, female students have more educational and structural support in terms of entrepreneurial intention.

H.0.5.40: There is no significant difference among stream of study of higher education students in Kerala concerning perceived environmental support factors related to entrepreneurial intention

Table 5.44
ANOVA for Significant Difference Among Stream of Study of Students Concerning Perceived Environmental Support Factors Related to Entrepreneurial Intention

Factors of Perceived Environmental Support	Stream of Study				F value	P value
	Arts	Science	Commerce and management	Engineering		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Perceived Educational Support	3.66 (0.77)	3.46 (0.78)	3.77 (0.83)	3.41 (0.98)	9.062	<0.001**
Perceived Relational Support	3.69 (0.95)	3.45 (0.85)	3.65 (1.00)	3.72 (0.84)	4.610	0.003**
Perceived Structural Support	3.50 (0.74)	3.24 (0.74)	3.44 (0.77)	3.21 (0.88)	7.334	<0.001**

Source: Primary data
*Note: 1. ** refers to 1% significant*

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level with regard to factors of perceived environmental support related to entrepreneurial intention. Thus, there is a significant difference among streams of study of higher education students in Kerala with respect to factors of perceived environmental support related to entrepreneurial intention, such as educational support, relational support, and structural support.

Post-hoc test of ANOVA

Table: 5.45

Post hoc Test for Significant Differences Among the Stream of Study with Respect to Factors of Perceived Environmental Support Related to Entrepreneurial Intention

Factors of Perceived Environmental Support	Stream of Study (I)	Stream of Study (J)	Mean difference (I-J)	Std. error	P value
Perceived Educational Support	Arts	Science	0.196	0.092	0.150^{NS}
		Commerce and Management	-0.115	0.096	0.627 ^{NS}
		Engineering	0.245	0.081	0.014*
	Science	Commerce and Management	-0.311	0.088	0.002**
		Engineering	0.049	0.071	0.902 ^{NS}
	Commerce and management	Engineering	0.361	0.076	<0.001**
Perceived Relational Support	Arts	Science	0.239	0.093	0.051 ^{NS}
		Commerce and Management	0.044	0.096	0.967 ^{NS}
		Engineering	-0.023	0.081	0.992 ^{NS}
	Science	Commerce and Management	-0.194	0.088	0.125 ^{NS}
		Engineering	-0.263	0.072	0.002**
	Commerce and Management	Engineering	-0.068	0.076	0.808 ^{NS}
Perceived Structural Support	Arts	Science	0.263	0.085	0.011*
		Commerce and Management	0.060	0.088	0.902^{NS}
		Engineering	0.287	0.074	<0.001**
	Science	Commerce and Management	-0.203	0.080	0.058 ^{NS}
		Engineering	0.023	0.065	0.984 ^{NS}
	Commerce and Management	Engineering	0.226	0.069	0.007**

Source: Primary data

*Note: 1. ** refers to 1% significant*

*2. * refers to 5% significant. ^{NS} refers to not significant*

According to the results of the Tukey HSD post hoc test, significant differences exist among the streams of study of higher education students in Kerala regarding perceived environmental support factors, including educational support, relational support, and structural support. Regarding educational support, arts students show significant differences compared to engineering students. Science students also differ significantly from commerce and management students, while commerce and management students differ significantly from engineering students in terms of perceived educational support. In relation to relational support, science students exhibit significant differences compared to engineering students, with engineering students perceiving higher levels of relational support, contributing to their entrepreneurial mindset. When considering structural support, arts students show significant differences compared to science and engineering students, while commerce and management students differ significantly from engineering students in terms of perceived structural support. Students majoring in arts perceive greater support, while commerce and management students perceive higher levels of structural assistance, which can contribute to a higher intention to start their own businesses compared to engineering students.

The mean scores indicate that students majoring in arts perceive greater educational support compared to engineering students. Commerce and management students also receive more educational support than students majoring in science and engineering. Additionally, engineering students perceive higher levels of relational support, contributing to their entrepreneurial mindset. Arts students, on the other hand, perceive greater structural support compared to science and engineering students, potentially fostering an entrepreneurial mindset. Commerce and management students perceive greater structural assistance, leading to a higher intention to start their own businesses compared to engineering students.

Understanding these variations can guide higher education institutions in Kerala to tailor their support programs and initiatives to meet the specific needs of students from various academic backgrounds, fostering a more conducive environment for entrepreneurship and promoting a diverse and vibrant entrepreneurial ecosystem in the region.

H.0.5.41 There is no significant difference among the family income of Higher Education Students in Kerala with respect to factors of perceived environmental support relating to entrepreneurial intention

Table 5.46

ANOVA for Significant Difference Among the Family Income of Students with Respect to Factors of Perceived Environmental Support Relating to Entrepreneurial Intention

Factors of Perceived Environmental Support	Monthly Family Income of the Students						F value	P value
	Up to 20,000	20,001 to 40,000	40,001 to 60,000	60,001 to 80,000	80,001 to 1,00,000	Above 1,00,000		
	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD	Mean and SD		
Perceived Educational Support	3.58 (0.88)	3.48 (0.86)	3.65 (0.84)	3.49 (1.00)	3.34 (0.94)	3.45 (0.95)	1.895	0.092 ^{NS}
Perceived Relational Support	3.60 (0.86)	3.63 (0.86)	3.81 (0.87)	3.61 (1.00)	3.56 (0.98)	3.64 (0.92)	1.559	0.169 ^{NS}
Perceived Structural Support	3.37 (0.82)	3.32 (0.77)	3.38 (0.86)	3.12 (0.84)	3.09 (0.82)	3.25 (0.82)	2.817	0.016*

Source: Primary data
*Note: 1. * refers to 5% significant*
3. ^{NS} refers to not significant

Since the P value is less than 0.05, the null hypothesis is rejected at a 5% level with regard to the structural support factor of perceived environmental support related to entrepreneurial intention. Thus, there exist a significant difference in the monthly family income of students of higher education institutions in Kerala with respect to perceived structural support. With a p-value greater than 0.05 for both relational and educational support factors, the study's results indicate that the null hypothesis is accepted. This suggests that there is no statistically significant difference in the monthly family income of higher education students in Kerala concerning their perceived relational and educational support factors leading to entrepreneurial intention. These findings imply that students from varying monthly family income backgrounds perceive similar levels of relational and educational support in terms of their entrepreneurial intentions.

Post-hoc test of ANOVA

Table 5.47

Post Hoc Test for Significant Difference Among Family Income of Students with Respect to Factors of Perceived Environmental Support Related to Entrepreneurial Intention

Factors of Perceived Environmental Support	Monthly Family Income (I)	Monthly Family Income (J)	Mean difference (I-J)	Std. error	P value
Perceived Structural Support	Up to 20,000	20,001 to 40,000	0.053	0.068	0.971 NS
		40,001 to 60,000	-0.009	0.078	1.000 NS
		60,001 to 80,000	0.249	0.097	0.108 NS
		80,001 to 1,00,000	0.279	0.103	0.041**
		Above 1,00,000	0.119	0.084	0.712 NS
	20,001 to 40,000	40,001 to 60,000	-0.062	0.078	0.969 NS
		60,001 to 80,000	0.195	0.097	0.337 NS
		80,001 to 1,00,000	0.226	0.103	0.245 NS
		Above 1,00,000	0.066	0.084	0.969 NS
	40,001 to 60,000	60,001 to 80,000	0.258	0.104	0.137 NS
		80,001 to 1,00,000	0.288	0.110	0.096 NS
		Above 1,00,000	0.128	0.092	0.734 NS
	60,001 to 80,000	80,001 to 1,00,000	0.030	0.124	1.000 NS
		Above 1,00,000	-0.129	0.108	0.843 NS
	80,001 to 1,00,000	Above 1,00,000	-0.160	0.114	0.728 NS

Source: Primary data
Note: NS refers to not significant
*** denotes significant at 1% level*

The findings of the Tukey HSD post hoc test indicate that there is a statistically significant gap between students whose family income is up to 20,000 and those whose family income is between 80,001 and 1,000,001. Students whose families earn up to 20,000 rupees monthly perceive greater structural support than students whose families earn between 80,001 and 1,00,001 rupees monthly.

H.0.5.42 There is no significant difference between students of HEIs in Kerala having a family business background or not with respect to factors of perceived environmental support related to entrepreneurial intention

Table 5.48

t-test for Significant Differences Between Students of HEIs in Kerala Having a Family Business Background or not with Respect to Factors of Perceived Environmental Support Related to Entrepreneurial Intention

Factors of Perceived Environmental Support	Family Business Background				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Perceived Educational Support	3.52	0.91	3.52	0.88	0.079	0.937^{NS}
Perceived Relational Support	3.80	0.89	3.50	0.87	5.470	<0.000**
Perceived Structural Support	3.31	0.84	3.29	0.80	0.573	0.567 ^{NS}

Source: Primary data

*Note: 1. ** denotes significant at 1% level*

2. ^{NS} denotes not significant

The rejection of the null hypothesis at the 1% significance level, with a P-value less than 0.01, indicates that there is a significant difference in perceived relational support related to entrepreneurial intention between students of HEIs in Kerala with and without a family business background. In the case of relational support related to entrepreneurial intention, there exist significant difference between students of HEIs in Kerala who do have a family business background and do not have a family business background.

In the case of education and structural support, the P value is greater than 0.05. So, the null hypothesis is accepted. This demonstrates that, in terms of education and structural support, higher education students in Kerala, whether they have a family business background or not, do not differ much. According to the mean score, students with a family business background perceive more relational support for their entrepreneurial intentions than students without a family business background.

H.0.5.43: ***There is no significant difference between the students of HEIs in Kerala who have learned entrepreneurial courses and those who did not learn entrepreneurial courses with respect to factors of perceived environmental support related to entrepreneurial intention***

Table 5.49

t-test for Significant Difference Between the Students Who Have Learned Entrepreneurial Courses and Those Who did not with Respect to Factors of Perceived Environmental Support Related to Entrepreneurial Intention

Factors of Perceived Environmental Support	Entrepreneurial Course Learned				T Value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Perceived Educational Support	3.58	0.98	3.50	0.85	1.331	0.183^{NS}
Perceived Relational Support	3.72	0.95	3.61	0.86	1.830	0.068 ^{NS}
Perceived Structural Support	3.27	0.88	3.31	0.79	-0.772	0.440 ^{NS}

Source: Primary data
Note: ^{NS} denotes not significant

Since the P value is greater than 0.05, the null hypothesis is accepted for the factors of perceived environmental support related to entrepreneurial intention among the students of higher education institutions in Kerala, that is, education support, relational support, and structural support. This specifies that there is no significant difference between the students of HEIs in Kerala who have learned entrepreneurial subjects and those who did not learn entrepreneurial subjects with respect to factors of perceived environmental support related to entrepreneurial intention.

These findings suggest that exposure to entrepreneurial subjects in the curriculum does not lead to significant variations in students' perceptions of the support they receive from their educational environment, relationships, and overall institutional structure regarding their entrepreneurial intentions. Regardless of whether students have taken entrepreneurial courses or not, they perceive similar levels of support from their higher education institutions in relation to their entrepreneurial aspirations.

H.0.5.44: There is no significant difference between the students of HEIs in Kerala who have membership in I&E-oriented clubs or cells and those who don't have membership in I&E-oriented clubs or cells with respect to factors of perceived environmental support related to entrepreneurial intention

Table 5.50

t-test for Significant Difference Between the Students who are members of I&E - Oriented Clubs or Cells and Those who are not members with Respect to Factors of Perceived Environmental Support

Factors of Perceived Environmental Support	Membership in Innovation and Entrepreneurship-Oriented Clubs or Cells				T Value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Perceived Educational Support	3.74	0.91	3.48	0.89	3.626	<0.001**
Perceived Relational Support	3.70	0.97	3.64	0.88	0.799	0.425^{NS}
Perceived Structural Support	3.36	0.86	3.29	0.81	1.040	0.299 ^{NS}

Source: Primary data

*Note: 1. ** denotes significant at 1% level*

2. ^{NS} denotes not significant

Given that the P-value is less than 0.01, the null hypothesis is rejected at a 1% significance level for the factor of perceived environmental support, specifically educational support, in relation to entrepreneurial intention among higher education students in Kerala. There is a significant difference between the students of HEIs in Kerala who have membership in I&E-oriented clubs or cells and those who don't have membership in I&E-oriented clubs or cells with respect to perceived educational support. In the case of relational and structural support, the P value is greater than 0.05. So, the null hypothesis is accepted. This reveals that there is no significant difference between students in higher education institutions in Kerala who have membership in IEDC, IIC, and ED Clubs and those who don't have membership in IEDC, IIC, and ED Clubs in terms of relational and structural support related to entrepreneurial intention. According to the mean score, students who are members of I&E-oriented clubs or cells receive higher educational support compared to non-members in terms of entrepreneurial intention.

H.0.5.45: There is no significant difference between students from HEIs in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted with respect to perceived environmental support related to entrepreneurial intention

Table 5.51

t-test for Significant Difference Between Students from HEIs Where Entrepreneurial Activities are Conducted and Those from Where Entrepreneurial Activities are not Conducted with Respect to Perceived Environmental Support

Factors of Perceived Environmental Support	Entrepreneurial Activities Conducted by the Institution				T value	P value
	Yes		No			
	Mean	SD	Mean	SD		
Perceived Educational Support	3.64	0.84	3.11	0.96	8.072	<0.001**
Perceived Relational Support	3.66	0.89	3.60	0.92	0.972	0.33^{NS}
Perceived Structural Support	3.33	0.81	3.19	0.85	2.297	0.022*

Source: Primary data

*Note: 1. ** denotes significant at 1% level*

*2. * denotes significant at 5% level*

3. ^{NS} denotes not significant

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% significance level for the factor of perceived educational support among the students of higher education institutions in Kerala. In Kerala, there is a significant difference between students from HEIs where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted with respect to perceived educational support. Students from HEIs where entrepreneurial activities are conducted regularly perceive higher entrepreneurship education support relating to entrepreneurial intention. In terms of structural support, the P value is less than 0.05. Consequently, the null hypothesis is rejected at the 5% significance level for the factor perceived as structural support among higher education students in Kerala. Hence, there exist significant difference between students from HEIs in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are least conducted with respect to perceived structural support. In the case of relational support, the P value is greater than 0.05. Consequently, the null hypothesis is accepted. This demonstrates that there is no

significant difference in relational support for entrepreneurial intention between students from HEIs in Kerala where entrepreneurial activities are regularly conducted and those from institutions where entrepreneurial activities are least conducted.

The mean result of the study proves that if entrepreneurial activities are regularly conducted in HEIs, students will perceive high educational and structural support, leading to starting businesses in the future.

H.0.5.46: There is no significant difference between students who receive I&E support from the college and those who do not receive I&E support concerning factors of perceived environmental support related to entrepreneurial intention.

Table 5.52
t-test for Significant Difference Between Students Who Receive I&E Support from the College and Those who do not Receive Support Concerning Factors of Perceived Environmental Support

Factors	Institutional Entrepreneurship and Innovation Support Received				T value	P Value
	Yes		No			
	Mean	SD	Mean	SD		
Perceived Educational Support	3.61	0.85	2.91	0.95	8.518	<0.001**
Perceived Relational Support	3.66	0.90	3.58	0.83	0.979	0.328^{NS}
Perceived Structural Support	3.33	0.81	3.08	0.83	3.209	<0.001**

Source: Primary data
*Note: 1. ** denotes significant at 1% level*
2. ^{NS} denotes not significant

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% significance level for the factors of environmental support related to entrepreneurial intention, such as educational and structural support among the students of HEIs in Kerala. There is significant difference between students who receive I&E support from the college and those who do not receive I&E support concerning perceived educational support and perceived structural support leading to entrepreneurial intention.

In the case of relational support, the P value is greater than 0.05. Consequently, the null hypothesis is accepted. This reveals that there exists no significant difference in

perceived relational support among students of HEIs in Kerala who receive institutional I&E support and those who don't receive such support.

Based on the mean score, students who receive entrepreneurship and innovation support from their college perceive greater educational and structural support than students who don't receive such support.

These findings underscore the significance of I&E support programs in HEIs. By providing students with the necessary educational and structural support, HEIs can play a crucial role in nurturing a culture of entrepreneurship and empowering students to pursue their entrepreneurial aspirations. As a result, students who receive such support are more likely to develop the skills, knowledge, and confidence required to transform innovative ideas into viable and successful entrepreneurial ventures.

5.6 Conclusion

In conclusion, this chapter addressed the first objective, examining entrepreneurial intention and its antecedents among students of HEIs in Kerala. Antecedents included psychological characteristics, personality traits, and perceived environmental support. Socio-demographic, economic, and background factors influencing entrepreneurial intention were explored. Appropriate statistical methods, including mean, standard deviation, percentage analysis, quartile deviation, one-sample t-test, independent t-test, one-way ANOVA with Tukey's HSD post hoc analysis, and chi-square test, were employed to achieve the objective of the study. The study findings reveal above-average entrepreneurial intention among the students of HEIs in Kerala. Male students showed higher entrepreneurial attributes, while female students perceived greater educational and structural support. Engineering students exhibited higher risk-taking and innovativeness. Family business backgrounds and entrepreneurial courses positively impacted entrepreneurial tendencies. Moreover, being a member of I&E-oriented cells or clubs and belonging to institutions with regular I&E activities positively impacts certain entrepreneurial attributes. Institutional support plays a crucial role in fostering positive attitudes and perceptions of educational and structural support for entrepreneurship. These findings underscore the importance of targeted interventions and support programs to further nurture and empower entrepreneurial potential among students of HEIs in Kerala.

CHAPTER 6

LEVEL OF PERCEIVED BARRIERS HINDERING THE FORMATION OF ENTREPRENEURIAL INTENTION AMONG THE STUDENTS OF HIGHER EDUCATION INSTITUTIONS IN KERALA

Contents

6.1 Introduction

The present chapter contains the second objective of the study, which is to assess the level of perceived barriers hindering the formation of entrepreneurial intention among the students of higher education institutions in Kerala. Perceived lack of support, perceived lack of competency, perceived lack of funds, and fear of failure are considered the perceived barriers hindering the formation of entrepreneurial intention among the students of higher education institutions in Kerala. Gender, stream of study, family income, family business background, entrepreneurial course learned, membership in entrepreneurship and innovation-oriented cells or clubs, entrepreneurial activities conducted by the institution, institutional entrepreneurship, and innovation support are taken as socio-demographic, economic, and background factors of the students for the cross-analysis in this section.

The following are the barriers hindering the formation of entrepreneurial intention among the students of higher education institutions in Kerala:

(1) Perceived lack of support
(2) Perceived lack of competency
(3) Perceived lack of fund
(4) Fear of failure

The following are the socio-demographic, economic, and background factors of the students considered for the cross-analysis:

(1) Gender
(2) Stream of study
(3) Family income
(4) Family business background
(5) Entrepreneurial courses learned
(6) Membership in I&E-oriented cells or clubs
(7) Entrepreneurial activities conducted by the institution
(8) Institutional entrepreneurship and innovation support

6.2 Objective of the Chapter

Objective: II- To assess the level of perceived barriers hindering the formation of entrepreneurial intention among the students of higher education institutions in Kerala.

The level of perceived barriers hindering entrepreneurial intention among students of HEIs in Kerala was assessed using Quartile Deviation, Percentage Analysis, and Chi-square tests. Quartile Deviation was utilized to divide the data into three quarters, namely Q1, Q2, and Q3, providing insights into the distribution of responses. Percentage Analysis was employed to calculate the proportion of responses contained in each quartile, offering a comprehensive understanding of the distribution pattern. To determine the significance of data distribution in each quartile, the Chi-square test is applied, enabling a statistical evaluation of the relationship between perceived barriers and quartiles. These methods collectively shed light on the extent and significance of perceived barriers that students face in pursuing entrepreneurial intentions, providing valuable insights for fostering a supportive entrepreneurial ecosystem in higher education institutions in Kerala.

6.3 The Level of Perceived Barriers that Hinder the Formation of Entrepreneurial Intentions among the Students of Higher Education Institutions in Kerala

Based on the review of the literature, the following barriers that are most commonly used and potentially relevant for the study were considered.

(1) Perceived lack of support
(2) Perceived lack of competency
(3) Perceived lack of funds
(4) Fear of failure

H.0.6.1: There exist no significant difference between the levels of perceived lack of support among the students of higher education institutions in Kerala with respect to entrepreneurial intention.

Table 6.1
The Level of Perceived Lack of Support as a Barrier Among the Students with Respect to Entrepreneurial Intention

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Perceived Lack of Support	292 (27.5%)	401 (37.7%)	370 (34.8%)	1063 (100%)	17.80	<0.001**

Source: Primary data
*** denotes significant at 1% level*

Since the P value is less than 0.01, the proportionate level of perceived lack of support among the students of higher education institutions in Kerala with respect to entrepreneurial intention is not equally distributed. Therefore, the null hypothesis is rejected at the 1% level. It indicates that there exist a significant difference regarding the levels of perceived lack of support among the students of higher education institutions in Kerala with respect to entrepreneurial intention.

From the above table, it can be observed that 27.5 percent of students experience a low level of perceived lack of support from family and friends, lack of mentoring support, lack of legal assistance, and lack of institutional and advisory support as

barriers to their entrepreneurial intention. 37.7 percent of students perceive a moderate level of lack of support for their entrepreneurial intentions. 34.8 percent of students at HEIs in Kerala are facing a high level of perceived lack of support for entrepreneurial intentions. The data indicate that the students of HEIs in Kerala receive a moderate level of support from family and friends, mentoring support, legal assistance, and advisory services in relation to their entrepreneurial intentions.

H.0.6.2: ***There exist no significant difference between the levels of perceived lack of competency among the students of higher education institutions in Kerala with respect to entrepreneurial intention***

Table 6.2
The Level of Perceived Lack of Competency as a Barrier Among the Students with Respect to Entrepreneurial Intention

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Perceived Lack of Competency	375 (35.3%)	397 (37.3%)	291 (27.4%)	1063 (100%)	17.66	<0.001**

Source: Primary data
*** Denotes significant at 1% level*

Since the P value is less than 0.01, it can be concluded that the proportionate level of perceived lack of competency among the students of HEIs in Kerala with regard to the intention to start a business is not equally distributed. As a result, the null hypothesis is rejected at the 1% level. It suggests that there is considerable disparity between the degrees of perceived lack of competence among the students of HEIs in Kerala in relation to their intention to start their own businesses.

From the above table, it can be observed that 35.3 percent of students have a low level of competency barrier to their entrepreneurial intention. 37.3 percent of students have a moderate level of competency barrier to their entrepreneurial intentions. 27.4 percent of students at HEIs in Kerala have a moderate level of competency barrier to entrepreneurial intention, such as a lack of business management skills, a lack of marketing skills, a lack of knowledge about setting up a new business, and a lack of

business experience. It demonstrates that students of HEIs in Kerala have a moderate level of competency barriers with reference to their intentions to start entrepreneurship

H.0.6.3: There exist no significant difference among the levels of perceived lack of funds as a barrier among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.3
The Level of Perceived Lack of Funds as a Barrier Among the Students with Respect to Entrepreneurial Intention

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of Perceived Lack of Fund	367 (34.5%)	384 (36.1%)	312 (29.4%)	1063 (100%)	7.99	0.018*

Source: Primary data
** Denotes significant at 5% level*

As the P value is lower than 0.05, it can be concluded that there is an uneven distribution of the level of perceived lack of funds as a barrier among the students of HEIs in Kerala with regard to their entrepreneurial intention. As a result, the assumption that there is no difference in the level of perceived lack of funds as a barrier among the students of higher education institutions in Kerala is rejected at the 5% level. It suggests that there exist a significant difference between the levels of perceived lack of funds as a barrier among the students of HEIs in Kerala with regard to entrepreneurial intention.

From the above, it can be observed that 34.5 per cent of students perceive a low level of lack of funds as a barrier to their entrepreneurial intentions. 36.1 per cent of students perceive a moderate level of lack of funds as a barrier to their entrepreneurial intentions. 29.4 per cent of students perceive a high level of lack of funds as a barrier to their entrepreneurial intentions. It demonstrates that students of HEIs in Kerala perceive a moderate level of lack of fund barriers such as lack of initial capital, lack of personal savings and resources, difficulty in obtaining loans, and lack of assets for collateral securities in relation to their intention to start their own businesses. The findings highlight the significance of addressing the financial constraints faced by aspiring entrepreneurs.

H.0.6.4: There exist no significant difference among the levels of fear of failure as a barrier among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.4
The Level of Fear of Failure as a Barrier Among the Students with Respect to Entrepreneurial Intention

Attribute	Low level	Moderate level	High level	Total	Chi-Square value	P value
Level of fear of failure	274 (25.8%)	508 (47.8%)	281 (26.4%)	1063 (100%)	100.03	<0.001**

Source: Primary data
*** Denotes significant at 1% level*

As the P value is less than 0.01, it can be concluded that the proportionate level of fear of failure among the students of HEIs in Kerala with regard to entrepreneurial intention is not uniformly distributed. Therefore, the null hypothesis is rejected at 1% level. It indicates that there exist a significant difference regarding the levels of fear of failure as a barrier among the students of HEIs in Kerala with respect to entrepreneurial intention. The data presented in the table above makes it abundantly evident that 25.8 per cent of students perceive a low level of fear of failure as a barrier in regard to their desire to pursue entrepreneurship. 47.8 per cent of students perceive a moderate level of fear of failure as a barrier in regard to their desire to start a business. A high level of fear of failure as a barrier is perceived by 26.4% of students enrolled in higher education programmes in Kerala with respect to their desire to pursue an entrepreneurial venture. The data indicate that students of HEIs in Kerala perceive a moderate level of fear of failure as a barrier, such as fear of losing money, fear of hard competition, fear of not being capable of managing the business effectively, and the fear that their business idea might fail when considering starting a new businesses or startups.

The data highlights the need for targeted support and interventions to address the specific fears and concerns students may have when considering entrepreneurial pursuits. By addressing these barriers, higher education institutions can play a crucial role in fostering a more conducive environment for entrepreneurship and empowering students to pursue their business ideas with greater confidence and determination.

6.4 The Level of Perceived Barriers that Hinder the Formation of Entrepreneurial Intention Among the Students of Higher Education Institutions in Kerala Across Selected Socio-Demographic, Economic, and Background Factors

The following socio-demographic, economic, and background factors of the students are considered for the analysis:

Gender

Stream of study

Family income

Family Business background

Entrepreneurial course learned

Membership in entrepreneurship and innovation-oriented cells or clubs

Entrepreneurial activities conducted by the institution

Institutional entrepreneurship and innovation support

6.4.1 Perceived Lack of Support as a Barrier Across Socio-Demographic, Economic, and Background Factors Among the Students of Higher Education Institutions in Kerala

By exploring the extent of perceived lack of support as a barrier among students in higher education institutions in Kerala, this study aims to gain valuable insights into the challenges that aspiring entrepreneurs encounter in their pursuit. Lack of support can take various forms, such as inadequate encouragement from family and friends, external pressures favouring traditional job paths over entrepreneurship, limited access to legal assistance or counseling, lack of institutional backing, and a scarcity of mentoring opportunities. These perceived barriers can significantly impact students' entrepreneurial intentions and aspirations. Insufficient support from close social circles and the wider society may lead to doubts and apprehensions, hindering students from taking the leap into entrepreneurship. Moreover, the absence of institutional resources and guidance can limit their access to necessary tools and networks crucial for entrepreneurial success. Addressing these challenges and developing support systems tailored to the unique needs of aspiring student entrepreneurs is essential for nurturing a culture of innovation and fostering a thriving entrepreneurial ecosystem in higher education institutions.

H.0.6.5: There exist no significant difference between gender and the level of perceived lack of support as a barrier among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.5
Association between Gender and the Level of Lack of Support as an Entrepreneurial Barrier among the Students of HEIs in Kerala.

Gender	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate Level	High Level			
Male	140 (27.7%) [47.9%]	191 (37.7%) [47.6%]	175 (34.6%) [47.3%]	**506 (100%)**	0.02	0.986^{NS}
Female	152 (27.3%) [52.1%]	210 (37.7%) [52.4%]	195 (35%) [52.7%]	**557 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The analysis of the data indicates that the P value is greater than 0.05, leading to the acceptance of the null hypothesis. Consequently, we can conclude that there is no significant association between gender and the perceived lack of support as a barrier among the students of higher education institutions in Kerala concerning their entrepreneurial intention. This finding implies that both male and female students share similar perceptions regarding the barriers they encounter in pursuing entrepreneurship, irrespective of their gender. Inadequate encouragement from family and friends, who may prioritize traditional job paths over venturing into entrepreneurship and limited access to legal assistance or counseling can hinder students from starting and running a business. These perceptions of inadequate support from family and friends can have a significant impact on students' entrepreneurial intentions. The lack of encouragement can diminish students' confidence in their entrepreneurial ideas and capabilities, making them less likely to take the leap into entrepreneurship.

H.0.6.6: There exist no significant difference among the stream of study of higher education students in Kerala with respect to level of perceived lack of support

Table 6.6
Association among Stream of Study and the Level of Lack of Support as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Stream of Study	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Arts	45 (28.7%) [15.4%]	55 (35%) [13.7%]	57 (36.3%) [15.4%]	**157 (100%)**	3.82	0.700^{NS}
Science	53 (23.9%) [18.2%]	84 (37.8%) [20.9%]	85 (38.3%) [23%]	**222 (100%)**		
Commerce and Management	57 (30.3%) [19.5%]	73 (38.8%) [18.2%]	58 (30.9%) [15.7%]	**188 (100%)**		
Engineering	137 (27.6%) [46.9%]	189 (38.1%) [47.1%]	170 (34.3%) [45.9%]	**496 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Due to the P value being greater than 0.05, the null hypothesis is accepted. As a result, there is no connection between the stream of study and the perceived lack of support among the students of higher education institutions in Kerala who intend to start their own businesses. The study's findings imply that regardless of whether students are pursuing arts, science, commerce, management, or engineering, they encounter similar hurdles in their entrepreneurial journey. These barriers may include inadequate encouragement from family and friends, limited access to resources and mentorship, societal pressures favoring traditional career paths, and a lack of institutional support. Thus, it becomes evident that the perceived barriers hindering entrepreneurial intentions are not influenced by the academic discipline pursued by the students.

H.0.6.7: There exist no significant difference between family income and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.7

Association Between Family Income and the Level of Lack of Support as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Monthly Family Income	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Up to 20,000	73 (25.3%) [25%]	118 (41%) [29.4%]	97 (33.7%) [26.2%]	**288 (100%)**		
20,001 to 40,000	76 (26.6%) [26%]	117 (40.9%) [29.2%]	93 (32.5%) [25.1%]	**286 (100%)**		
40,001 to 60,000	54 (31.2%) [18.5%]	54 (31.2%) [13.5%]	65 (37.6%) [17.6%]	**173 (100%)**		
60,001 to 80,000	26 (27.7%) [8.9%]	38 (40.4%) [9.5%]	30 (31.9%) [8.1%]	**94 (100%)**	9.43	0.492^{NS}
80,001 to 1,00,000	25 (31.3%) [8.6%]	23 (28.8%) [5.7%]	32 (40%) [8.6%]	**80 (100%)**		
Above 1,00,000	38 (26.8%) [13%]	51 (35.9%) [12.7%]	53 (37.3%) [14.3%]	**142 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data

Note:1. ^{NS} *denotes not significant*

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

The null hypothesis is accepted since the P value is greater than 0.05. As a result, there exist no significant association between monthly family income and the perceived lack of support among the students of higher education institutions in Kerala in terms of their entrepreneurial intention.

H.0.6.8: There exist no significant difference between family business background and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.8

Association Between Family Business Background and the Level of Lack of Support as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Family Business Background	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate Level	High Level			
Yes	173 (32.3%) [59.2%]	201 (37.6%) [50.1%]	161 (30.1%) [43.5%]	**535 (100%)**	16.17	<0.001**
No	119 (22.5%) [40.8%]	200 (37.9%) [49.9%]	209 (39.6%) [56.5%]	**528 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data

*Note: 1. ** denotes significant at 1% level*

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level. There is significant difference between family business backgrounds and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention. According to the row percentage, among the students who have a family business background, 32.3 per cent of them are facing a low level of lack of support as a barrier. 37.6 per cent of them are facing a moderate level of lack of support as a barrier, and 30.1 per cent of them are facing a high level of lack of support as a barrier with respect to entrepreneurial intention. Among the students who don't have a family business background, 22.5 per cent of them have a low level of lack of support as a barrier, 7.9 per cent of students experience a moderate level of lack of support as a barrier, and 39.6 per cent of students are facing a high level of lack of support as a barrier with respect to entrepreneurial intention. It can be concluded that students who belong to a business family perceive a low level of lack of support as a barrier with respect to entrepreneurial intention, while students from non-business backgrounds perceive a high level of lack of support as a barrier with respect to entrepreneurial intention.

H.0.6.9: There exist no significant difference between the entrepreneurial course learned and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.9
Association Between Entrepreneurial Course Learned and the Level of Lack of Support as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Course Learned	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Yes	111 (32.1%) [38%]	124 (35.8%) [30.9%]	111 (32.1%) [30%]	**346 (100%)**	5.55	0.062^{NS}
No	181 (25.2%) [62%]	277 (38.6%) [69.1%]	259 (36.1%) [70%]	**717 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data

Note:1. ^{NS} *denotes not significant*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The analysis of the study reveals that there exist no significant difference in the perceived lack of support between students who have studied entrepreneurial subjects and those who have not. This finding suggests that regardless of their exposure to entrepreneurship courses, students perceive similar barriers and challenges when it comes to receiving support for their entrepreneurial aspirations. The lack of significant difference in perceived lack of support highlights the universality of the barriers faced by students in their entrepreneurial journey. Whether they have taken specific entrepreneurial courses or not, they encounter similar hurdles, such as inadequate encouragement from family and friends, limited access to resources, and a scarcity of mentorship opportunities. Furthermore, the findings of the study call for a more inclusive approach to promoting entrepreneurship. Rather than focusing solely on students who have studied entrepreneurial subjects, efforts should be made to reach out to students from all disciplines and backgrounds.

H.0.6.10: There exist no significant difference between membership in I&E-oriented cells or clubs and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.10

Association Between Membership in I&E-Oriented Cells or Clubs and the Level of Lack of Support as an Entrepreneurial Barrier Among the Students of HEIs in Kerala

Membership in Entrepreneurship and Innovation-oriented Cells or Clubs	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Yes	47 (26.3%) [16.1%]	66 (36.9%) [16.5%]	66 (36.9%) [17.8%]	**179 (100%)**		
No	245 (27.7%) [83.9%]	335 (37.9%) [83.5%]	304 (34.4%) [82.2%]	**884 (100%)**	0.42	0.811^{NS}
Total	**292**	**401**	**370**	**1063**		

Source: Primary data
Note:1. ^{NS} *denotes not significant*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The acceptance of the null hypothesis, indicates that there exist no significant difference in perceived lack of support as an entrepreneurial barrier between students who are members of entrepreneurship and innovation-oriented cells or clubs such as IEDC, IIC, ED clubs, and those who are not the members. This finding implies that a mere membership in entrepreneurship and innovation-oriented cells or clubs does not lessen the lack of support barrier. While being a member of such clubs or cells can offer valuable resources, networking opportunities, and exposure to entrepreneurial experiences, but may not fully eliminate the perceived lack of support that students face when considering entrepreneurship.

H.0.6.11: There exist no significant difference between entrepreneurial activities conducted by the college and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.11

Association Between Entrepreneurial Activities Conducted and the Level of Lack of Support as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Activities Conducted by the Institution	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate Level	High Level			
Yes	243 (29.1%) [83.2%]	313 (37.5%) [78.1%]	279 (33.4%) [75.4%]	**835 (100%)**	6.00	0.050*
No	49 (21.5%) [16.8%]	88 (38.6%) [21.9%]	91 (39.9%) [24.6%]	**228 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data
*Note: 1. * denotes significant at 5% level*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is less than 0.05, the null hypothesis is rejected at the 5% level. It reveals that there exist significant difference between entrepreneurial activities conducted by the college and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention. On the basis of the percentage of students from institutions where entrepreneurial activities are conducted on a regular basis, 29.1 percent of them have a low level of lack of support as a barrier to entrepreneurial intention. 37.5 percent of students have a moderate level of lack of support as a barrier with respect to entrepreneurial intention, and 33.4 percent of students have a high level of lack of support as a barrier with respect to entrepreneurial intention. Among the students from institutions where entrepreneurial activities are not conducted on a regular basis, 21.5 percent of students have a low level of lack of support as a barrier in terms of entrepreneurial intention. 38.6 percent of students have a moderate level of lack of support as a barrier with regard to entrepreneurial intention, and 39.9 percent of students face a high level of lack of support as a barrier with respect to entrepreneurial intention.

With regard to students from institutions where entrepreneurial activities are conducted on a regular basis, they perceive low levels of lack of support barriers with regard to entrepreneurial intention, whereas students from institutions where entrepreneurial activities are not conducted on a regular basis perceive high levels of lack of support barriers with regard to entrepreneurial intention.

H.0.6.12: There exist no significant difference between the institutional innovation and entrepreneurship support and the level of perceived lack of support among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.12
Association Between Institutional I&E Support and the Level of Lack of Support as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Institutional Entrepreneurship and Innovation Support	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate Level	High Level			
Yes	271 (29.1%) [92.8%]	351 (37.7%) [87.5%]	310 (33.3%) [83.8%]	**932 (100%)**	12.31	0.002**
No	21 (16%) [7.2%]	50 (38.2%) [12.5%]	60 (45.8%) [16.2%]	**131 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data
*Note: 1. ** denotes significant at 1% level*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level. It reveals that there exist significant difference between the innovation and entrepreneurship support provided by the college and the level of perceived lack of support among the students of higher education institutions in Kerala with respect to entrepreneurial intention. On the basis of row percentage, among the students who receive innovation and entrepreneurship support from the college, 29.1 per cent of them have a low level of lack of support as a barrier in terms of entrepreneurial intention. 37.5 per cent of students have a moderate level of lack of support, and 33.4 per cent of students have a high level of lack of support barrier with respect to

entrepreneurial intention. Among the students who don't get innovation and entrepreneurship support from the college, 16 per cent of them have a low level of lack of support barrier in terms of entrepreneurial intention. 38.2 per cent of students have a moderate level of lack of support, and 45.8 per cent of students face a high level of lack of support with respect to entrepreneurial intention.

It can be observed that students with low levels of lack of support barriers are more common among students who receive entrepreneurship and innovation support from their college, whereas students who do not receive entrepreneurship and innovation support from their college are more likely to have high levels of lack of support barriers with regard to entrepreneurship.

6.4.2 Perceived Lack of Competency as a Barrier Across Socio-Demographic, Economic, and Background Factors Among the Students of Higher Education Institutions in Kerala

The study aims to explore the perceived lack of competency as a barrier to entrepreneurial intentions among students in higher education institutions in Kerala. This perceived lack of competency encompasses various aspects, such as the absence of business management skills, marketing skills, and lack of prior business experience. Moreover, not having enough knowledge about the practical aspects of setting up and running a business can also deter students from pursuing entrepreneurial endeavours. Understanding the legal and financial aspects, market analysis, and business planning are crucial for transforming innovative ideas into viable businesses. The absence of this knowledge may lead students to perceive entrepreneurship as a challenging and risky endeavour. Furthermore, the lack of prior business experience can be a significant barrier for aspiring entrepreneurs. Students who have not been exposed to real-world business situations may feel uncertain about their ability to navigate the complexities of entrepreneurship. This perceived lack of competency might hinder them from taking the leap into entrepreneurship. Understanding and addressing the perceived lack of competency as a barrier is vital for fostering an entrepreneurial mindset among students in higher education institutions in Kerala.

H.0.6.13: There exist no significant difference between gender and level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.13

Association between Gender and the Level of Lack of Competency as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Gender	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low level	Moderate level	High level			
Male	184 (36.4%) [46.3%]	196 (38.7%) [52.3%]	126 (24.9%) [43.3%]	**506 (100%)**	5.68	0.058^{NS}
Female	213 (38.2%) [53.7%]	179 (32.1%) [47.7%]	165 (29.6%) [56.7%]	**557 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data

Note:1. ^{NS} *denotes not significant*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The acceptance of the null hypothesis, with a P value greater than 0.05, indicates that there exist no significant difference in the level of perceived lack of competency between male and female students of HEIs in Kerala concerning their entrepreneurial aspirations. Both genders seem to share similar perceptions regarding the barriers they encounter in pursuing entrepreneurship, regardless of their gender. The study highlights that both male and female students perceive similar challenges when it comes to perceived lack of competency barriers hindering their entrepreneurial intentions. These barriers include lack of business management skills, which might involve knowledge of financial management, operations, and strategic planning essential for running a successful business. Additionally, male and female students alike perceive a lack of knowledge about setting up a new business, which could include understanding the legal requirements, market analysis, and business planning necessary for a startup. The findings of the study emphasises the importance of providing support and interventions to address these perceived barriers regardless of gender.

H.0.6.14: There exist no significant difference among the streams of study and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.14

Association Between Stream of Study and the Level of Lack of Competency as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Stream of study	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate level	High Level			
Arts	67 (42.7%) [16.9%]	49 (31.2%) [13.1%]	41 (26.1%) [14.1%]	**157 (100%)**	9.42	0.151^{NS}
Science	83 (37.4%) [20.9%]	77 (34.7%) [20.5%]	62 (27.9%) [21.3%]	**222 (100%)**		
Commerce and Management	82 (43.6%) [20.7%]	64 (34%) [17.1%]	42 (22.3%) [14.4%]	**188 (100%)**		
Engineering	165 (33.3%) [41.6%]	185 (37.3%) [49.3%]	146 (29.4%) [50.2%]	**496 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The acceptance of the null hypothesis, with a P value above 0.05, indicates that there exist no significant difference in the perceived lack of competency among students from different streams of study in higher education institutions in Kerala concerning their entrepreneurial intentions. Regardless of their field of study, students perceive similar barriers related to lack of competency, which could hinder their entrepreneurial aspirations. The findings of the study reveal that students from various streams, including arts, science, commerce, and engineering, share similar perceptions when it comes to perceived lack of competency barriers in entrepreneurship. These barriers include a lack of essential business management skills, such as financial management, human resource management, and strategic planning, lack of knowledge in setting a business etc which are essential for running a successful venture.

H.0.6.15: There exist no significant difference among the family income and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.15

Association Between Family Income and the Level of Lack of Competency as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Monthly Family Income	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Up to 20,000	107 (37.2%) [27%]	100 (34.7%) [26.7%]	81 (28.1%) [27.8%]	**288 (100%)**	3.50	0.967^{NS}
20,001 to 40,000	101 (35.3%) [25.4%]	107 (37.4%) [28.5%]	78 (27.3%) [26.8%]	**286 (100%)**		
40,001 to 60,000	69 (39.9%) [17.4%]	61 (35.3%) [16.3%]	43 (24.9%) [14.8%]	**173 (100%)**		
60,001 to 80,000	31 (33%) [7.8%]	33 (35.1%) [8.8%]	30 (31.9%) [10.3%]	**94 (100%)**		
80,001 to 1,00,000	31 (38.8%) [7.8%]	27 (33.8%) [7.2%]	22 (27.5%) [7.6%]	**80 (100%)**		
Above 1,00,000	58 (40.8%) [14.6%]	47 (33.1%) [12.5%]	37 (26.1%) [12.7%]	**142 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The acceptance of the null hypothesis, with a P value higher than 0.05, indicates that there exist no significant relationship between the perceived lack of competency barrier and the monthly family income among students of HEIs in Kerala concerning their entrepreneurial intentions. The finding implies that regardless of their family's monthly income level, students in Kerala perceive similar challenges related to their competency in entrepreneurship. Whether they come from families with lower or higher incomes, students express similar concerns about their perceived lack of essential business skills, marketing knowledge, and experience in setting up a new business.

H.0.6.16: There exist no significant difference between the family business background and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.16

Association Between Family Business Background and the Level of Lack of Competency as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Family Business Background	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Yes	227 (42.4%) [57.2%]	187 (35%) [49.9%]	121 (22.6%) [41.6%]	**535 (100%)**	16.39	<0.001**
No	170 (32.2%) [42.8%]	188 (35.6%) [50.1%]	170 (32.2%) [58.4%]	**528 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data

*Note: 1. ** denotes significant at 1% level*

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level. It reveals that there exist a significant difference between the family business background and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention. Based on row percentage, among the students who have a family business background, 42.4 per cent of them have a low level of lack of competency in terms of entrepreneurial intention. 35 per cent of students have a moderate level of lack of competency, and 22.6 per cent of them have a high level of lack of competency with respect to entrepreneurial intention. Among the students who don't have a family business background, 32.2 per cent of students have a low level of lack of competency in terms of entrepreneurial intention. 35.6 per cent of students have a moderate level of lack of competency, and 32.2 per cent of students are facing a high level of lack of competency with respect to entrepreneurial intention. It can be concluded that students who belong to a business family perceive a low level of competency barrier with respect to entrepreneurial intention, while students from non-business backgrounds perceive a high level of competency barrier with respect to entrepreneurial intention.

H.0.6.17: There exist no significant difference between the entrepreneurial course learned and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.17

Association Between Entrepreneurial Course Learned and the Level of Lack of Competency as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Course Learned	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate Level	High Level			
Yes	133 (38.4%) [33.5%]	111 (32.1%) [29.6%]	102 (29.5%) [35.1%]	**346 (100%)**	2.47	0.289^{NS}
No	264 (36.8%) [66.5%]	264 (36.8%) [70.4%]	189 (26.4%) [64.9%]	**717 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data

Note:1. ^{NS} *denotes not significant*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The acceptance of the null hypothesis, with a P value higher than 0.05, indicates that there exist no significant difference in the perceived lack of competency between students of higher education institutions in Kerala who have learned entrepreneurial subjects and those who have not. The findings suggest that the act of studying entrepreneurial subjects does not have a significant association with the level of perceived incompetence among students of higher education institutions in Kerala. This implies that regardless of whether students have studied entrepreneurial subjects or not, they perceive similar levels of competency barriers when it comes to entrepreneurship.

H.0.6.18: There exist no significant difference between membership in I&E-oriented cells or clubs and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.18

Association Between Membership in I&E-Oriented Cells or Clubs and the Level of Lack of Competency as an Entrepreneurial Barrier Among the Students of HEIs

Membership in Entrepreneurship and Innovation-Oriented Cells or Clubs	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Yes	58 (32.4%) [14.6%]	60 (33.5%) [16%]	61 (34.1%) [21%]	**179 (100%)**	5.13	0.077^{NS}
No	339 (38.3%) [85.4%]	315 (35.6%) [84%]	230 (26%) [79%]	**884 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data

Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

As the P value is greater than 0.05, the null hypothesis is accepted. This suggests that there is no significant difference between involvement in I&E-oriented clubs or cells such as IEDC, IIC, and ED Clubs and the perceived incapacity among the students of HEIs in Kerala with respect to entrepreneurial intention. The finding suggests that mere membership in these clubs or cells does not have a substantial association with the level of perceived incapacity among students of HEIs in Kerala. In other words, regardless of whether students are part of I&E-oriented clubs or not, they perceive similar levels of competency barriers when it comes to entrepreneurship. Being a member of such clubs does not seem to have a significant impact on how students perceive their own entrepreneurial capabilities. To effectively address perceived incapacity barriers, it may be necessary for these clubs and institutions to provide additional support and training programs that specifically target skill development and enhance students' self-efficacy and confidence in their entrepreneurial abilities.

H.0.6.19 There exist no significant difference between entrepreneurial activities conducted by the college and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.19

Association Between Entrepreneurial Activities Conducted and the Level of Lack of Competency as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Activities Conducted by the Institution	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate level	High Level			
Yes	321 (38.4%) [80.9%]	292 (35%) [77.9%]	222 (26.6%) [76.3%]	**835 (100%)**	2.24	0.326^{NS}
No	76 (33.3%) [19.1%]	83 (36.4%) [22.1%]	69 (30.3%) [23.7%]	**228 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data
Note: 1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted. This implies that there exist no significant difference between the entrepreneurial activities conducted by the college and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention.

In other words, regardless of whether the college conducts entrepreneurial activities or not, students perceive similar levels of competency barriers when it comes to entrepreneurship. The availability of entrepreneurial activities within the college environment may not directly impact students' perceptions of their own capabilities and competency in starting and managing a business.

H.0.6.20: There exist no significant difference between the institutional innovation and entrepreneurship support and the level of perceived lack of competency among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.20

Association Between Institutional I&E Support and the Level of Lack of Competency as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Institutional Entrepreneurship and Innovation Support	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate Level	High Level			
Yes	354 (38%) [89.2%]	329 (35.3%) [87.7%]	249 (26.7%) [85.6%]	**932 (100%)**		
No	43 (32.8%) [10.8%]	46 (35.1%) [12.3%]	42 (32.1%) [14.4%]	**131 (100%)**	2.01	0.365^{NS}
Total	**397**	**375**	**291**	**1063**		

Source: Primary data

Note: 1. ^{NS} denotes not significant

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

As the P value is higher than 0.05, the null hypothesis is accepted. This suggests that there exist no significant difference between the entrepreneurship and innovation support received from the college and the level of perceived lack of competency as a barrier among the students of higher education institutions in Kerala with respect to entrepreneurial intention.

6.4.3 Perceived Lack of Funds as a Barrier Across Socio-demographic, Economic, and Background Factors Among the Students of Higher Education Institutions in Kerala

Perceived lack of funds is considered as an important barrier in pursuing entrepreneurial aspirations. Lack of sufficient funds or resources may hinder the ability to initiate and sustain entrepreneurial ventures. This barrier can manifest in various forms, such as limited access to initial capital, personal savings, difficulty in obtaining loans, and a lack of assets for collateral securities. Addressing this perceived barrier is essential for promoting a culture of entrepreneurship among students and requires targeted strategies and support mechanisms to alleviate financial constraints and foster an environment conducive to entrepreneurial pursuits.

H.0.6.21: There exist no significant difference between gender and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.21
Association between Gender and the Level of Lack of Fund as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Gender	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Male	174 (34.4%) [47.4%]	191 (37.7%) [49.7%]	141 (27.9%) [45.2%]	**506 (100%)**	1.43	0.488^{NS}
Female	193 (34.6%) [52.6%]	193 (34.6%) [50.3%]	171 (30.7%) [54.8%]	**557 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is above 0.05, the null hypothesis is accepted. As a result, there exist no significant association between gender and the perceived lack of funding among the students of higher education institutions in Kerala in terms of entrepreneurial intention.

H.0.6.22: There exist no significant difference between the stream of study and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.22

Association Between Stream of Study and the Level of Lack of Fund as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Stream of Study	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate Level	High level			
Arts	62 (39.5%) [16.9%]	57 (36.3%) [14.8%]	38 (24.2%) [12.2%]	**157 (100%)**		
Science	86 (38.7%) [23.4%]	81 (36.5%) [21.1%]	55 (24.8%) [17.6%]	**222 (100%)**		
Commerce and Management	68 (36.2%) [18.5%]	63 (33.5%) [16.4%]	57 (30.3%) [18.3%]	**188 (100%)**	10.16	0.118^{NS}
Engineering	151 (30.4%) [41.1%]	183 (36.9%) [47.7%]	162 (32.7%) [51.9%]	**496 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data

Note:1. ^{NS} denotes not significant

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted. As a result, it suggests that there exist no connection between a student's chosen field of study and the perceived lack of funding in higher education students' intentions to start a business. The study results shed light on the fact that the lack of funding is a common concern among students across various streams, and it may impact their entrepreneurial aspirations.

H.0.6.23: There exist no significant difference between family income and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.23

Association Between Family Income and the Level of Lack of Fund as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Monthly Family Income	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate level	High Level			
Up to 20,000	103 (35.8%) [28.1%]	102 (35.4%) [26.6%]	83 (28.8%) [26.6%]	**288 (100%)**	14.29	0.160^{NS}
20,001 to 40,000	94 (32.9%) [25.6%]	97 (33.9%) [25.3%]	95 (33.2%) [30.4%]	**286 (100%)**		
40,001 to 60,000	67 (38.7%) [18.3%]	72 (41.6%) [18.8%]	34 (19.7%) [10.9%]	**173 (100%)**		
60,001 to 80,000	31 (33%) [8.4%]	28 (29.8%) [7.3%]	35 (37.2%) [11.25]	**94 (100%)**		
80,001 to 1,00,000	25 (31.3%) [6.8%]	33 (41.3%) [8.6%]	22 (27.55) [7.1%]	**80 (100%)**		
Above 1,00,000	47 (33.1%) [12.8%]	52 (36.6%) [13.5%]	43 (30.3%) [13.8%]	**142 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data

Note:1. ^{NS} denotes not significant

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

As a result of the P value being greater than 0.05, the null hypothesis is accepted. It demonstrates that, in terms of entrepreneurial intention, there is no significant association between the monthly family income and the level of perceived lack of funds among the students of higher education institutions in Kerala. The study results implies that the perceived lack of funds is a common concern among students from various socioeconomic backgrounds. It highlights the importance of addressing this barrier in order to foster a more inclusive and supportive entrepreneurial ecosystem.

H.0.6.24: There exist no significant difference between family business background and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.24

Association Between Family Business Background and the Level of Lack of Fund as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Family Business Background	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate level	High Level			
Yes	184 (34.4%) [50.1%]	194 (36.3%) [50.5%]	157 (29.3%) [50.3%]	**535 (100%)**	0.01	0.994^{NS}
No	183 (34.7%) [49.9%]	190 (36%) [49.5%]	155 (29.4%) [49.7%]	**528 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted. It clearly states that there exist no significant difference between family business backgrounds and the level of lack of funding among the students of higher education institutions in Kerala with respect to entrepreneurial intention.

H.0.6.25: There exist no significant difference between the entrepreneurial course learned and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.25

Association Between Entrepreneurial Course Learned and the Level of Lack of Fund as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Course Learned	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate Level	High level			
Yes	114 (32.9%) [31.1%]	121 (35%) [31.5%]	111 (32.1%) [35.6%]	**346 (100%)**	1.86	0.394^{NS}
No	253 (35.3%) [68.9%]	263 (36.7%) [68.5%]	201 (28%) [64.4%]	**717 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data,
Note:1. ^{NS} denotes not significant
Value within ( ) refers to row percentage, Value within [ ] refers to column percentage

Given that the P value exceeds 0.05, it can be concluded that the null hypothesis is accepted. The study indicates that there exist no statistically significant disparity between the entrepreneurial course learned and the level of financial constraint among the students of HEIs in Kerala in relation to their desire to become entrepreneurs.

H.0.6.26: There exist no significant difference between membership in entrepreneurship and innovation-oriented cells or clubs and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.26

Association Between Membership in I&E-Oriented Cells or Clubs and the Level of Lack of Fund as an Entrepreneurial Barrier Among the Students of HEIs in Kerala

Membership in Entrepreneurship and Innovation-Oriented Cells or Clubs	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Yes	51 (28.5%) [13.9%]	73 (40.8%) [19%]	55 (30.7%) [17.6%]	**179 (100%)**	3.70	0.157^{NS}
No	316 (35.7%) [86.1%]	311 (35.2%) [81%]	257 (29.1%) [82.4%]	**884 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data

Note:1. ^{NS} denotes not significant

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

The null hypothesis is accepted since the P value is higher than 0.05. This implies that, in terms of entrepreneurial intention, there exist no significant difference between participation in entrepreneurship and innovation-oriented cells or clubs such as IEDC, IIC, and ED Clubs and the perceived lack of funds as a barrier among the students of higher education institutions in Kerala.

H.0.6.27: There exist no significant difference between entrepreneurial activities conducted by the college and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention.

Table 6.27
Association Between Entrepreneurial Activities Conducted and the Level of Lack of Fund as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Activities Conducted by the Institution	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate level	High Level			
Yes	287 (34.4%) [78.2%]	303 (36.3%) [78.9%]	245 (29.3%) [78.5%]	**835** **(100%)**	0.055	0.973^{NS}
No	80 (35.1%) [21.8%]	81 (35.5%) [21.1%]	67 (29.4%) [21.5%]	**228** **(100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data
Note: 1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted, indicating that there exist no significant difference in the perceived level of financial constraints as a barrier between students from higher education institutions in Kerala where entrepreneurial activities are conducted and those where such activities are not conducted. This finding suggests that the presence or absence of entrepreneurial activities in the college does not have a substantial impact on students' perception of financial barriers to entrepreneurship. It implies that regardless of whether the college engages in entrepreneurial activities or not, students of higher education institutions in Kerala perceive similar challenges related to the availability of funds and resources when considering entrepreneurial ventures. To foster an entrepreneurial ecosystem, it is crucial for colleges to address these perceived financial constraints and provide support systems that assist students in overcoming these barriers to realize their entrepreneurial aspirations.

H.0.6.28: There exist no significant difference between institutional innovation and entrepreneurship support and the level of perceived lack of funds among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.28

Association Between Institutional I&E Support and the Level of Lack of Fund as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Institutional Entrepreneurship and Innovation Support	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate Level	High level			
Yes	328 (35.2%) [89.4%]	336 (36.1%) [87.5%]	268 (28.8%) [85.9%]	**932 (100%)**	1.90	0.386^{NS}
No	39 (29.8%) [10.6%]	48 (36.6%) [12.5%]	44 (33.6%) [14.1%]	**131 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data
Note: 1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted, suggesting that there exist no significant difference in the perceived level of financial constraints as a barrier between students who receive entrepreneurship and innovation assistance from the college and those who do not. This finding implies that the support provided by the college in terms of entrepreneurship and innovation does not significantly impact students' perceptions of financial barriers to entrepreneurship. Regardless of whether students receive assistance or not, they perceive similar challenges related to the availability of funds and resources when considering entrepreneurial ventures.

6.4.4 Fear of Failure as a Barrier Across Socio-demographic, Economic, and Background Factors for the Students of Higher Education Institutions in Kerala

Fear of failure are the apprehensions and anxieties that individuals experience, which deter them from pursuing entrepreneurial endeavours. It involves the fear of potential setbacks, financial losses, or the possibility of the business not succeeding. This fear can manifest in various ways, such as fear of losing money, fear of intense competition, fear of not being capable of managing the business effectively, and fear that their business idea might fail. Fear of failure can significantly impact an individual's decision-making process and may act as a hindrance to taking the leap into entrepreneurship. Understanding and addressing these fears are essential in fostering an entrepreneurial culture and encouraging individuals to embrace risk-taking and innovation while pursuing their entrepreneurial aspirations.

H.0.6.29: There exist no significant difference between gender and the level of fear of failure among the students of higher education institutions in Kerala with respect to entrepreneurial intention.

Table 6.29
Association between Gender and the Level of Fear of Failure as an Entrepreneurial Barrier among the Students of HEIs in Kerala.

Gender	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Male	134 (26.5%) [48.9%]	252 (49.8%) [49.6%]	120 (23.7%) [42.7%]	**506 (100%)**	3.70	0.157^{NS}
Female	140 (25.1%) [51.1%]	256 (46%) [50.4%]	161 (28.9%) [57.3%]	**557 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

The null hypothesis is accepted since the P value is greater than 0.05. This indicates that there is no significant difference between gender and the level of fear of failure among the students of higher education institutions in Kerala with respect to entrepreneurial intention.

H.0.6.30: There exist no significant difference between the stream of study and the level of fear of failure among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.30

Association Between Stream of Study and the Level of Fear of Failure as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Stream of Study	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Arts	40 (25.5%) [14.6%]	76 (48.4%) [15%]	41 (26.1%) [14.6%]	**157 (100%)**	3.18	0.785^{NS}
Science	56 (25.2%) [20.4%]	108 (48.6%) [21.3%]	58 (26.1%) [20.6%]	**222 (100%)**		
Commerce and Management	41 (21.8%) [15%]	98 (52.1%) [19.3%]	49 (26.1%) [17.4%]	**188 (100%)**		
Engineering	137 (27.6%) [50%]	226 (45.6%) [44.5%]	133 (26.8%) [47.3%]	**496 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted. Therefore, there exist no significant association between the stream of study and the fear of failure as a barrier among higher education students in Kerala in terms of entrepreneurial intention. The finding implies that the fear of potential setbacks and failure is a common concern among students across various academic disciplines.

H.0.6.31: There exist no significant difference between family income and the level of fear of failure among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.31

Association Between Family Income and the Level of Fear of Failure as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Monthly Family Income	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Up to 20,000	80 (27.8%) [29.2%]	143 (49.7%) [28.1%]	65 (22.6%) [23.1%]	**288 (100%)**		
20,001 to 40,000	61 (21.3%) [22.3%]	147 (51.4%) [28.9%]	78 (27.3%) [27.8%]	**286 (100%)**		
40,001 to 60,000	46 (26.6%) [16.8%]	87 (50.3%) [17.1%]	40 (23.1%) [14.2%]	**173 (100%)**		
60,001 to 80,000	27 (28.7%) [9.9%]	40 (42.6%) [7.9%]	27 (28.7%) [9.6%]	**94 (100%)**	12.93	0.228^{NS}
80,001 to 1,00,000	23 (28.8%) [8.4%]	34 (42.5%) [6.7%]	23 (28.8%) [8.2%]	**80 (100%)**		
Above 1,00,000	37 (26.1%) [13.5%]	57 (40.1%) [11.2%]	48 (33.8%) [17.1%]	**142 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data

Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to raw percentage
3. Value within [ ] refers to column percentage

The null hypothesis is accepted since the P value is higher than 0.05. It reveals that among the students of higher education institutions in Kerala, there exist no significant correlation between fear of failure and family income in terms of entrepreneurial intention.

H.0.6.32: There exist no significant difference between the family business background and the level of fear of failure among the students of higher education institutions in Kerala with respect to entrepreneurial intention.

Table 6.32

Association Between Family Business Background and the Level of Fear of Failure as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Family Business Background	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Yes	155 (29%) [56.6%]	243 (45.4%) [47.8%]	137 (25.6%) [48.8%]	**535 (100%)**	5.81	0.055^{NS}
No	119 (22.5%) [43.4%]	265 (50.2%) [52.2%]	144 (27.3%) [51.2%]	**528 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data
Note:1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted. It clearly shows that there exist no significant difference in the level of fear of failure and the family business backgrounds among the students of higher education institutions in Kerala.

H.0.6.33: There exist no significant difference between the entrepreneurial course learned and the level of fear of failure among the students of higher education institutions in Kerala with respect to entrepreneurial intention

Table 6.33

Association Between Entrepreneurial Course Learned and the Level of Fear of Failure as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Course Learned	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate Level	High Level			
Yes	91 (26.3%) [33.2%]	157 (45.4%) [30.9%]	98 (28.3%) [34.9%]	**346 (100%)**	1.37	0.503^{NS}
No	183 (25.5%) [66.8%]	351 (49%) [69.1%]	183 (25.5%) [65.1%]	**717 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data, Note:1. ^{NS} denotes not significant
Value within ( ) refers to row percentage, Value within [ ] refers to column percentage

The null hypothesis is accepted since the P value is greater than 0.05. Thus, there exist no significant difference between the entrepreneurial course studied and the level of fear of failure as a barrier among higher education students in Kerala with regard to entrepreneurial intention.

H.0.6.34: There exist no significant difference between the membership in entrepreneurial and innovation-oriented cells or clubs and the level of fear of failure among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.34
Association Between Membership in I&E-Oriented Cells or Clubs and the Level of Fear of Failure as an Entrepreneurial Barrier Among the Students of HEIs in Kerala

Membership in Entrepreneurship and Innovation-Oriented Cells or Clubs	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Yes	51 (28.5%) [18.6%]	75 (41.9%) [14.8%]	53 (29.6%) [18.9%]	**179 (100%)**		
No	223 (25.2%) [81.4%]	433 (49%) [85.2%]	228 (25.8%) [81.1%]	**884 (100%)**	2.99	0.223^{NS}
Total	**274**	**508**	**281**	**1063**		

Source: Primary data
Note:1. ^{NS} *denotes not significant*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is greater than 0.05, the null hypothesis is accepted. This suggests that there exist no significant difference between involvement in entrepreneurial and innovation-oriented cells or clubs such as IEDC, IIC, and ED clubs and the fear of failure barrier among the students of higher education institutions in Kerala in terms of entrepreneurial intention.

H.0.6.35: There exist no significant difference between the entrepreneurial activities conducted by the college and the level of fear of failure among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.35

Association Between Entrepreneurial Activities Conducted and the Level of Fear of Failure as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Entrepreneurial Activities Conducted by the Institution	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate level	High Level			
Yes	220 (26.3%) [80.3%]	397 (47.5%) [78.1%]	218 (26.1%) [77.6%]	**835 (100%)**	0.69	0.705^{NS}
No	54 (23.7%) [19.7%]	111 (48.7%) [21.9%]	63 (27.6%) [22.4%]	**228 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data
Note: 1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage, Value within [ ] refers to column percentage

As the P value is greater than 0.05, the null hypothesis is accepted. This suggests that, in terms of entrepreneurial purpose, there exist no significant difference between the entrepreneurial activities conducted by the college and the fear of failure as a barrier among the students of higher education institutions in Kerala.

H.0.6.36: There exist no significant difference between institutional innovation and entrepreneurship support and the level of fear of failure among the students of HEIs in Kerala with respect to entrepreneurial intention

Table 6.36

Association Between Institutional I&E Support and the Level of Fear of Failure as an Entrepreneurial Barrier among the Students of HEIs in Kerala

Institutional Entrepreneurship and Innovation Support	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate Level	High level			
Yes	243 (26.1%) [88.7%]	446 (47.9%) [87.8%]	243 (26.1%) [86.5%]	**932 (100%)**	0.63	0.726^{NS}
No	31 (23.7%) [11.3%]	62 (47.3%) [12.2%]	38 (29%) [13.5%]	**131 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data
Note: 1. ^{NS} denotes not significant
2. Value within ( ) refers to row percentage, Value within [ ] refers to column percentage

The null hypothesis is accepted since the P value is higher than 0.05. This shows that there exist no significant difference between the level of fear of failure among higher education students in Kerala and the entrepreneurial and innovation assistance received from colleges with respect to entrepreneurial intention.

6.5 Perceived Entrepreneurial Barrier with Regard to the Degree of Entrepreneurial Intention among the Students of HEIs in Kerala

6.5.1 Level of Perceived Entrepreneurial Barrier with Regard to the Degree of Entrepreneurial Intention among the Students of HEIs in Kerala

H.0.6.37: There exist no significant difference between the degree of entrepreneurial intention among the students of HEIs in Kerala and the level of perceived lack of support

Table 6.37

Association Between the Degree of Entrepreneurial Intention and the Level of Perceived Lack of Support among the Students of HEIs in Kerala

Degree of Entrepreneurial Intentions	Level of Perceived Lack of Support			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Low	107 (20.8%) [36.6%]	204 (39.6%) [50.9%]	204 (39.6%) [55.1%]	**515 (100%)**	23.85	<0.001**
High	185 (33.8%) [63.4%]	197 (35.9%) [49.1%]	166 (30.3%) [44.9%]	**548 (100%)**		
Total	**292**	**401**	**370**	**1063**		

Source: Primary data
*Note: 1. ** denotes significant at 1% level*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level. It states that there exist a significant difference in the level of perceived lack of support for starting a new business depending on the students' entrepreneurial intentions. According to row percentage, among the students who have low entrepreneurial intention, 20.8 percent of them perceive a low level of lack of support as a barrier, 39.6 percent of students perceive a moderate level of lack of support, and 39.6 percent of students perceive a high level of lack of support with respect to entrepreneurial intention. Among the students who have high entrepreneurial intention, 33.8 percent of them have a low level of lack of support as a barrier, 35.9 percent of students

experience a moderate level of lack of support, and 30.3 percent of students perceive a high level of lack of support. With respect to the degree of entrepreneurial intention, it can be seen that low levels of lack of support barriers are more common among students with high entrepreneurial intentions, while high levels of lack of support as a barrier are more prominent among students with low entrepreneurial intentions.

H.0.6.38: There exist no significant difference between the degree of entrepreneurial intention among the students of HEIs in Kerala and the level of perceived lack of competency

Table 6.38

Association Between the Degree of Entrepreneurial Intention and the Level of Perceived Lack of Competency among the Students of HEIs in Kerala

Degree of Entrepreneurial Intention	Level of Perceived Lack of Competency			Total	Chi-square Value	P value
	Low Level	Moderate Level	High level			
Low	150 (29.1%) [37.8%]	206 (40%) [54.9%]	159 (30.9%) [54.6%]	**515 (100%)**	28.85	<0.001**
High	247 (45.1%) [62.2%]	169 (30.8%) [45.1%]	132 (24.1%) [45.4%]	**548 (100%)**		
Total	**397**	**375**	**291**	**1063**		

Source: Primary data
*Note: 1. ** denotes significant at 1% level*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level. It specifies that there exist a significant difference between low and high entrepreneurial intention and the level of perceived lack of competency among higher education students in Kerala. According to the row percentage, among the students who have low entrepreneurial intentions, 29.1 percent of them have a low level of lack of competency as a barrier. 40 percent of them feel a moderate level of lack of competency, and 30.9 percent of them perceive a high level of lack of competency. Among the students who have high entrepreneurial intentions, 45.1 percent of them have a low level of competency as a barrier. 30.8 percent of students feel a moderate level of lack of competency, and 24.1 percent of students perceive a high level of lack of competency.

With regard to the degree of entrepreneurial intention, it can be seen that a low-level lack of competency as a barrier is more prevalent among students with high entrepreneurial intentions, and a high-level lack of competency as a barrier is more frequent among students with low entrepreneurial intentions.

H.0.6.39: There exist no significant difference between the degree of entrepreneurial intention among the students of HEIs in Kerala and the level of perceived lack of fund

Table 6.39

Association Between the Degree of Entrepreneurial Intention and the Level of Perceived Lack of Fund among the Students of HEIs in Kerala

Degree of Entrepreneurial Intention	Level of Perceived Lack of Fund			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Low	147 (28.5%) [40.1%]	202 (39.2%) [52.6%]	166 (32.2%) [53.2%]	**515 (100%)**	15.83	<0.001**
High	220 (40.1%) [59.9%]	182 (33.2%) [47.4%]	146 (26.6%) [46.8%]	**548 (100%)**		
Total	**367**	**384**	**312**	**1063**		

Source: Primary data

*Note: 1. ** denotes significant at 1% level*

2. Value within ( ) refers to row percentage

3. Value within [ ] refers to column percentage

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level. It indicates that there exist a significant difference between the degree of entrepreneurial intention and the level of perceived lack of funds among higher education students in Kerala. According to the row percentage, among the students who have low entrepreneurial intention, 28.5 percent of them have a low level of lack of funds, 39.2 percent of them face a moderate level of lack of funds, and 32.2 percent of them are experiencing a high level of lack of funds. Among the students who have high entrepreneurial intention, 40.1 percent of them have a low level of lack of funds, 33.2 percent perceive a moderate level of lack of funds, and 26.6 percent perceive a high level of lack of funds. In terms of the degree of entrepreneurial intention, it can be seen that students with high entrepreneurial intention have a lower level of shortage of funds, whereas students with low entrepreneurial intention have a higher level of lack of funds.

H.0.6.40: There is no significant difference between the degree of entrepreneurial intention among the students of HEIs in Kerala and the level of fear of failure

Table 6.40
Association Between the Degree of Entrepreneurial Intention and the Level of Fear of Failure among the Students of HEIs in Kerala

Degree of Entrepreneurial Intention	Level of Fear of Failure			Total	Chi-square Value	P value
	Low Level	Moderate level	High level			
Low	90 (17.5%) [32.8%]	248 (48.2%) [48.8%]	177 (34.4%) [63%]	**515 (100%)**	50.52	<0.001**
High	184 (33.6%) [67.2%]	260 (47.4%) [51.2%]	104 (19%) [37%]	**548 (100%)**		
Total	**274**	**508**	**281**	**1063**		

Source: Primary data
*Note: 1. ** denotes significant at 1% level*
2. Value within ( ) refers to row percentage
3. Value within [ ] refers to column percentage

Since the P value is less than 0.01, the null hypothesis is rejected at the 1% level. It indicates that there exist a significant difference between low and high entrepreneurial intention and the level of fear of failure among higher education students in Kerala. According to the row percentage, among the students who have low entrepreneurial intentions, 17.5 percent of them have a low level of fear of failure. 48.2 percent of them face a moderate level of fear of failure, and 34.4 percent perceive a high level of fear of failure with respect to entrepreneurial intention. Among the students who have high entrepreneurial intentions, 33.6 per cent of them face a low level of fear of failure. 47.4 percent of students feel a moderate level of fear of failure, and 19 percent of students face a high level of fear of failure with respect to entrepreneurial intention.

In terms of the degree of entrepreneurial intention, it can be seen that students with high entrepreneurial intention have a lower degree of fear of failure, whereas students with low entrepreneurial intention have a higher level of fear of failure.

6.5.2 Perceived Entrepreneurial Barrier with Regard to the Degree of Entrepreneurial Intention among the Students of HEIs in Kerala

H0.6.41: Factors of perceived entrepreneurial barriers among the students of HEIs in Kerala with a low level of entrepreneurial intentions are at an average level

Table 6.41

One sample t-test for Measuring the Factors of Perceived Entrepreneurial Barriers among the Students with a Low Level of Entrepreneurial Intention

Factors of Entrepreneurial Barriers	Mean	Standard Deviation	Mean difference	T value	P Value	Ranking based on mean
Perceived lack of support	3.51	0.94	0.51	12.28	<0.001**	IV
Perceived lack of competency	3.67	0.94	0.67	16.26	<0.001**	II
Perceived lack of fund	3.69	0.91	0.69	17.26	<0.001**	I
Fear of failure	3.66	1.00	0.66	14.93	<0.001**	III

Source: Primary data
*** denotes significant at 1% level*

Given that the P value is below 0.01, the null hypothesis has been rejected at a significance level of 1%. The present study indicates that the barriers to entrepreneurship faced by students with low levels of entrepreneurial intentions, including a perceived lack of support, a perceived lack of competency, a perceived lack of funding, and a fear of failure, are not equivalent to the average level. It has the potential to exceed or fall short of the average. The data suggest that the mean scores for all factors of entrepreneurial barriers among students with low levels of entrepreneurial intentions are above average (>3). Hence, it is evident that college students in Kerala who possess low levels of entrepreneurial intentions tend to exhibit above-average levels of perceived lack of support, perceived lack of competency, perceived lack of funds, and fear of failure. Based on the mean score, it can be deduced that the biggest perceived entrepreneurial barrier among college students with low levels of entrepreneurial intentions is the perceived lack of funds (3.69), followed by perceived lack of competency (3.67), fear of failure (3.66), and perceived lack of support (3.51).

H0.6.42: Factors of perceived entrepreneurial barriers among the students of HEIs in Kerala with a high level of entrepreneurial intentions are at an average level

Table 6.42

One Sample t-test for Measuring the Factors of Perceived Entrepreneurial Barriers among the Students with a High Level of Entrepreneurial Intentions

Factors of Entrepreneurial Barriers	Mean	Standard Deviation	Mean difference	T value	P Value	Ranking based on mean
Perceived lack of support	3.19	1.04	0.19	4.31	<0.001**	III
Perceived lack of competency	3.28	1.12	0.28	5.92	<0.001**	II
Perceived lack of fund	3.44	1.07	0.44	9.68	<0.001**	I
Fear of failure	3.17	1.14	0.17	3.69	<0.001**	IV

Source: Primary data
*** denotes significant at 1% level*

The rejection of the null hypothesis at a significance level of 1% has been determined based on the P value of less than 0.01. The current investigation suggests that the barriers to entrepreneurship encountered by students exhibiting high levels of entrepreneurial intentions, such as perceived lack of support, perceived lack of competencies, perceived lack of funds, and fear of failure, are not equivalent to the average level. The data indicate that the mean scores for all factors pertaining to entrepreneurial barriers among students exhibiting high levels of entrepreneurial intentions outstrip the average threshold (>3). Therefore, it is obvious that college students in Kerala who demonstrate higher levels of entrepreneurial intentions tend to manifest higher-than-average levels of perceived lack of support, perceived lack of competency, perceived lack of funds, and fear of failure. The analysis of the mean score indicates that the primary obstacle to entrepreneurship among college students with high levels of entrepreneurial intentions is the perceived lack of funds (3.44). This is followed by the perceived inadequacy of competence (3.28), lack of support (3.19), and fear of failure (3.17).

6.6 Conclusion

This chapter discussed the second objective of the study, which was to investigate the level of perceived barriers that hinder the formation of entrepreneurial intention among the students of higher education institutions in Kerala. Perceived lack of support, perceived lack of competency, perceived lack of funds, and fear of failure are considered barriers hindering the formation of entrepreneurial intention among the students of higher education institutions in Kerala. Gender, stream of study, monthly family income, family business background, entrepreneurial courses learned, membership in innovation and entrepreneurship-oriented clubs or cells, entrepreneurial activities conducted by the college, and institutional entrepreneurship and innovation support are taken as socio-demographic, economic, and background factors of the students for the cross-analysis in this section.

Overall, the study shows that students of higher education institutions in Kerala perceive moderate levels of hindrances to their entrepreneurial intentions due to insufficient support, competency, funding, and fear of failure. The study's findings indicate that even though all four factors of the perceived entrepreneurial barrier are at a moderate level, perceived lack of funds and perceived lack of competencies rank as the top barriers hindering the formation of entrepreneurial intention among the students of HEIs in Kerala. Students with low as well as high entrepreneurial intentions perceive a lack of funds as the biggest barrier influencing their entrepreneurial intentions. Lack of initial capital, lack of personal savings and resources, difficulty in obtaining loans, and lack of assets for collateral securities are the main financial barriers that restrict the students of HEIs in Kerala from pursuing entrepreneurship in the future. The competency barrier is the second-biggest hurdle perceived by students with low as well as high entrepreneurial intentions. Lack of business management skills, lack of marketing skills, lack of knowledge about setting up a new business, and lack of business experience are the main competency barriers that restrict students from opting for entrepreneurship as a career option. Fear of failure is perceived as the least barrier by students with a high level of entrepreneurial intention, while students with a low level of entrepreneurial intention perceive a lack of support as the least barrier.

The study's findings reveals that there exist no significant association between the level of perceived entrepreneurial barriers and socio-demographic, economic, and background factors such as gender, stream of study, family income, entrepreneurial course learned, and membership in innovation and entrepreneurship-oriented cells or clubs. It suggests that while lack of support is considered a barrier hindering the formation of entrepreneurial intention among the students of HEIs in Kerala, it might not be the most important or influential barrier. It acknowledges that lack of support can pose difficulties, but other barriers like lack of funds, lack of competency, and fear of failure could potentially have a greater impact or play a more significant role in hindering the formation process of entrepreneurial intention. Authorities and educational institutions are advised to adopt a more comprehensive strategy to build an entrepreneurial mindset among college students.

CHAPTER 7

EXPLORING THE ANTECEDENTS OF ENTREPRENEURIAL INTENTION AMONG THE STUDENTS OF HIGHER EDUCATION INSTITUTIONS IN KERALA: A MEDIATION AND MODERATION ANALYSIS

Contents

7.1 Introduction

The present chapter covers the third, fourth, fifth, and sixth objectives of the study to develop a Structural Equation Model for Higher Education Institutions in Kerala that links entrepreneurial Intention and its antecedents. Co-variance-based Confirmatory Factor Analysis (CB-CFA) and Co-variance-based Structural Equation modelling (CB-SEM) techniques are used to test the hypothesis. The present chapter is divided into two main parts. Part A deals with the Co-variance-based Confirmatory Factor analysis, and Part B deals with the co-variance-based Structural Equation modelling (CB-SEM) technique. Part B is again divided into four sub-parts based on the objectives of the study. Each sub-part of Part B includes the research objective,

hypotheses for testing, path analysis, and model fit indices, followed by a discussion of findings and a summary of the outcomes of hypotheses testing.

7.2 Objectives of the Chapter

Objective III: To examine the intervening role of entrepreneurial attitude among the students of HEIs in Kerala in the relationship between entrepreneurial personality traits and entrepreneurial intentions.

Objective IV: To examine the mediating role of entrepreneurial motivation among the students of HEIs in c in the relationship between perceived environmental support and entrepreneurial intention.

Objective V: To analyse the mediating effect of entrepreneurial self-efficacy and entrepreneurial attitude among the students of HEIs in Kerala in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.

Objective VI: To extract the moderating effect of institutional innovation and entrepreneurship support on the relationship between the psychological characteristics of students in HEIs in Kerala and their entrepreneurial intentions.

To achieve these objectives, IBM SPSS AMOS 21 Software is used to perform Co-variance based Confirmatory Factor Analysis and Co-variance based Structural Equation Modelling.

PART - A

7.3 Validity and Reliability Assessment by Co-variance-Based Confirmatory Factor Analysis

Confirmatory factor analysis is a distinct form of factor analysis used to assess the degree to which measurements of a particular construct correspond to a researcher's conception of the construct's underlying nature. Confirmatory factor analysis (CFA) is used to assess the degree to which observed variables accurately reflect the underlying constructs. This multivariate method permits to evaluate the suitability of the measurement models. Comparable statistical techniques are confirmatory factor analysis (CFA) and exploratory factor analysis (EFA). In contrast, EFA examines the data in a manner that provides insight into the number of factors required to accurately represent the data. In exploratory factor analysis, it is presumed that each observed

variable corresponds to each latent variable. CFA enables the researchers to establish the relationship between measured variables and latent variables and to determine the requisite number of factors within the data. The study uses CFA to validate or invalidate the measurement model.

To guarantee the robustness of CFA, it is essential to establish Construct validity, which encompasses convergent and discriminant validity as well as reliability, particularly composite reliability. CFA enables to authenticate the factor structure of a particular collection of observed variables. The application of CFA permits the investigator to scrutinise the postulation that a correlation exists between manifest variables and their underlying latent constructs (Suhr, 2009). The factors need to exhibit sufficient validity and reliability. The measurement model is evaluated using the following assessment tools:

(1) Composite Reliability (CR)
(2) Construct validity
    (a) Convergent Validity
    (b) Discriminant Validity.

Composite Reliability (CR) is a statistical measure that assesses the overall reliability of a construct. The interval of values spans from 0 to 1. As per the findings of Hair et al. (2010), composite reliability values that surpass 0.7 are deemed acceptable. Internal consistency can be deemed inadequate when values fall below 0.6.

Two distinct approaches, namely convergent validity and discriminant validity, can be employed for the assessment of construct validity.

Convergent validity pertains to the degree of convergence or shared variance among the observed variables or indicators of a given construct. According to Hair et al. (2010), the existence of issues related to convergent validity during the evaluation of validity implies that the observed variables do not adequately account for the underlying factor. Malhotra et al. (2001) discovered that AVE serves as a rigorous measure of convergent validity, exceeding the cautious nature of CR. In the current study, the researcher has utilised the average variance extracted (AVE) as a tool to evaluate the convergent validity. The determination of AVE is obtained by employing

standardised factor loadings. As per the findings of Hair et al. (2010), the AVE threshold value exceeds 0.5. Hair et al. (2010) posit that the utilisation of factor loadings of items can function as a method for determining convergent validity. As per the research conducted by Hair et al. (2010), the standard for ascertaining the validity of an item through standardised factor loading in the present study is established at a threshold of 0.5 or higher. Sufficient convergence may be deduced when the standardised factor loadings and AVE values surpass 0.5.

Discriminant validity refers to the extent to which a particular construct is distinct from other constructs. A construct that demonstrates a high degree of discriminant validity is considered exceptional and encompasses phenomena that are not subsumed by other constructs. If the discriminant validity analysis does not yield the expected results, it indicates that the variables under study are strongly associated with variables from different constructs. This implies that the underlying variable can be better explained by certain variables other than the ones being observed. The researcher utilised the Fornell and Larcker (1981) criterion as a rigorous method for assessing discriminant validity. The present study entails a comparative examination between the square root of AVE and the correlations of the latent variables. It is advisable that the AVE's square root, which represents the proportion of variance in the indicators of a construct that is captured by the construct's latent variable, should surpass the correlation between the construct's latent variable and the latent variables of other constructs. By employing this methodology, it is feasible to establish the discriminant validity.

The following subsection divides confirmatory factor analysis to demonstrate construct validity and reliability into four sections based on the nature of the constructs used in the study.

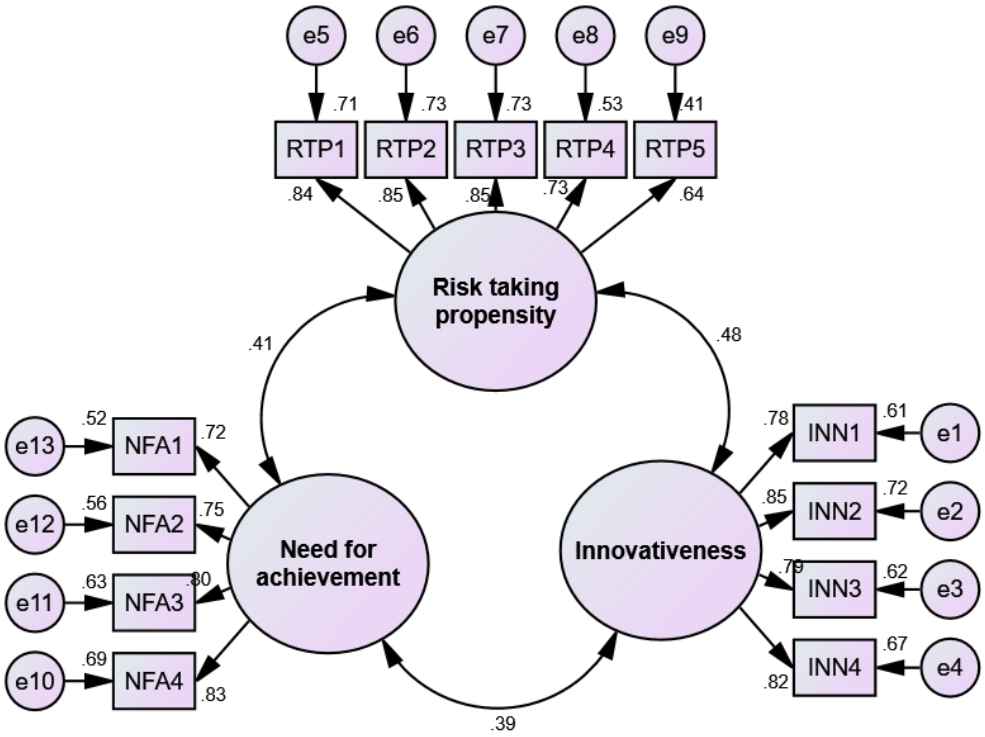
- Confirmatory Factor Analysis for Factors of Personality Traits
- Confirmatory Factor Analysis for the Factors of Perceived Environmental Support
- Confirmatory Factor Analysis for the Factors of Psychological Characteristics and Entrepreneurial Intention
- Confirmatory Factor Analysis for the Factors of Perceived Entrepreneurial Barriers

7.3.1 Confirmatory Factor Analysis for Factors of Entrepreneurial Personality Traits

Previous studies as well as reviews of the literature have widely investigated the significance of personality traits in various aspects of human behaviour, including entrepreneurial intention. The present study examines three distinct entrepreneurial personality traits, including the need for achievement, risk-taking propensity, and innovativeness, and their possible effects on entrepreneurial intention. These traits have been selected based on their significance to entrepreneurship and their ability to influence an individual's attitude towards business as well as their intention to pursue entrepreneurship.

Figure 7.1

Confirmatory Factor Analysis for Factors of Entrepreneurial Personality Traits



Source: Primary data

Table 7.1

Model Fit Indices for Factors of Entrepreneurial Personality Traits

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	2.847	0.000	0.990	0.982	0.97	0.039
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary data

Table 7.1 presented above displays the CFA model fit indices used for evaluating the comprehensive model fit. CMIN/DF, also known as the chi-square divided by degrees of freedom, is a statistical measure used to assess the fit of a specified model to the observed data in SEM and other statistical analyses. The CMIN/DF ratio is calculated by dividing the chi-square value by the degrees of freedom. The chi-square test compares the observed data with the expected values under the specified model, and a lower chi-square value indicates a better fit. A Chi-Square to degrees of freedom ratio of less than 5 is deemed acceptable for a model. The obtained value of 2.847 falls comfortably within the recommended upper limit. Further, RMSEA stands for Root Mean Square Error of Approximation. It is a statistical measure used in structural equation modelling (SEM) to assess the fit of a specified model to the observed data. RMSEA measures the discrepancy between the predicted covariance matrix of the model and the observed covariance matrix, taking into account the complexity of the model and the degrees of freedom. The RMSEA value ranges from 0 to infinity, with values closer to 0 indicating a better fit between the model and the data. A commonly used guideline is that an RMSEA value below 0.08 suggests a reasonable fit, while values below 0.05 indicate a close fit. RMSEA attained a value of 0.039, which is significantly lower than the commonly accepted threshold of 0.08. Additionally, it is notable that the GFI and AGFI values surpass 0.9, while the CFI value exceeds 0.9, where a value of 1.0 denotes an accurate fit. GFI stands for Goodness-of-Fit Index, which is a statistical measure used to assess how well an observed data set matches an expected model. AGFI stands for Adjusted Goodness-of-Fit Index. It is a statistical

measure used in structural equation modelling to assess the fit of a specified model to the observed data. The AGFI adjusts the Goodness-of-Fit Index (GFI) by considering the complexity of the model and the degrees of freedom. The AGFI ranges from 0 to 1, with values closer to 1 indicating a better fit between the model and the data. CFI stands for Comparative Fit Index. It is also a statistical measure used to evaluate the fit of a specified model to the observed data. The CFI compares the fit of the specified model to a baseline model that assumes independence among the observed variables. The CFI ranges from 0 to 1, with values closer to 1 indicating a better fit between the model and the data. The commonly used guideline is that a CFI value above 0.90 suggests a good fit, while values above 0.95 indicate a very good fit. Therefore, the model exhibits a high level of appropriateness and warrants consideration for additional analysis.

Table 7.2

Final Reliability and Validity of CFA Model for Factors of Entrepreneurial Personality Traits

Factors of Personality Traits	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Need for Achievement (NFA)	NFA 1	0.72**	0.86	0.60	0.86
	NFA 2	0.75**			
	NFA 3	0.80**			
	NFA 4	0.83**			
Innovativeness (INN)	INN 1	0.78**	0.88	0.66	0.88
	INN 2	0.85**			
	INN 3	0.79**			
	INN 4	0.82**			
Risk-taking propensity (RTP)	RTP 1	0.84**	0.89	0.62	0.89
	RTP 2	0.85**			
	RTP 3	0.85**			
	RTP 4	0.73**			
	RTP 5	0.64**			

Source: Primary data

** *denotes significant at 1% level*

Table 7.2 shows that factor loadings exceed 0.5, indicating good item validity. Cronbach's Alpha scores above 0.7 imply the construct's reliability. The Composite Reliability scores for all constructs surpass 0.8, suggesting high internal consistency reliability. Moreover, the study shows that AVE values exceed the suggested level of >0.5. Hence, all constructs show significant convergence. Therefore, the data is suitable for modelling and analysis since all parameters are within the specified range.

Table 7.3

Discriminant Validity among the Factors of Entrepreneurial Personality Traits

Constructs	NFA	INN	RTP
NFA	**(0.77)**		
INN	0.39	**(0.81)**	
RTP	0.41	0.48	**(0.79)**

Source: Primary data

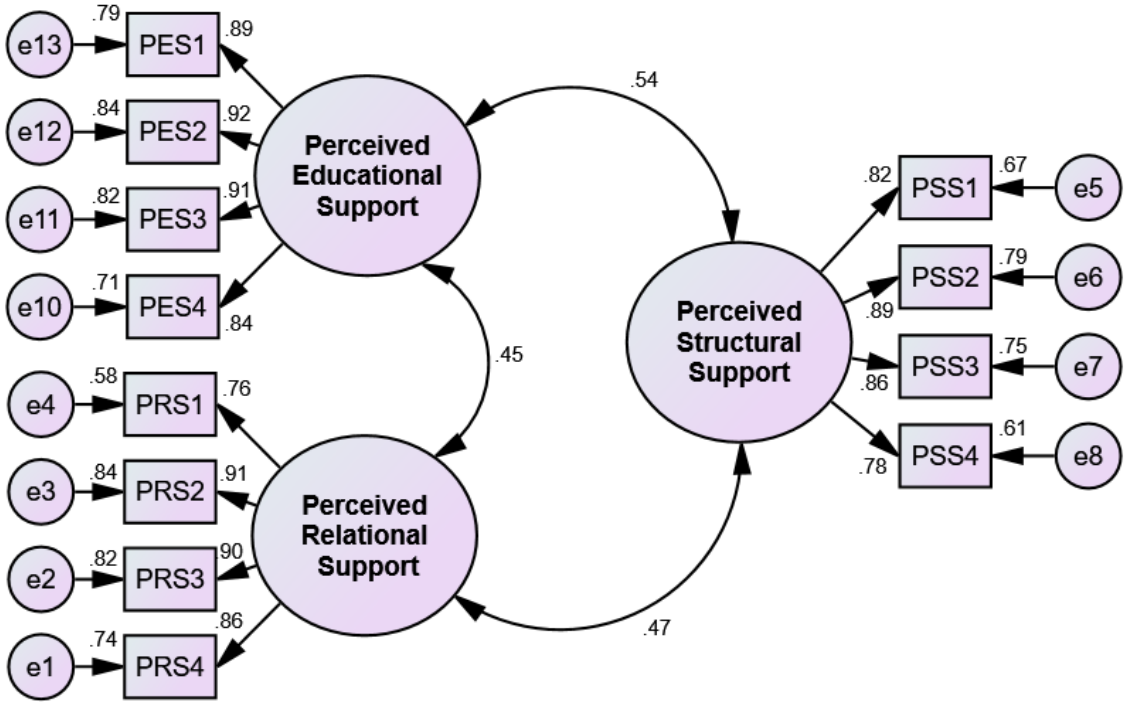
Table 7.3 above shows AVE square roots and inter-construct latent construct correlations. The square root of AVE scores must exceed inter-construct latent variable correlation values to rule out a link. The table above shows that the square root of AVE exceeds the inter-construct latent construct correlation value. Hence, personality trait constructs exhibit discriminant validity and no significant connection among constructs.

7.3.2 Confirmatory Factor Analysis for Factors of Perceived Environmental Support

Perceived environmental support is an individual's perception of resources and support available in their environment, which significantly influences their entrepreneurial intention. Factors of perceived environmental support considered for the present study include educational, relational, and structural support, which are crucial in shaping entrepreneurial intention. These factors have been selected based on their relevance to entrepreneurship and their ability to influence an individual's motivation to pursue entrepreneurship.

Figure 7.2

Confirmatory Factor Analysis for the Factors of Perceived Environmental Support



Source: Primary data

Table 7.4

Model Fit Indices for the Factors of Perceived Environmental Support

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	2.728	0.000	0.992	0.982	0.993	0.038
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

Source: Primary data

Table 7.4 presented above displays the CFA model fit indices used for evaluating the comprehensive model fit. A Chi-Square to degrees of freedom ratio of less than 5 is deemed acceptable for a model. The obtained value of 2.728 falls comfortably within the recommended upper limit. Moreover, the root mean square error of approximation (RMSEA) attained a value of 0.038, which is far below the necessary 0.08. Additionally, it is notable that the GFI and AGFI values surpass 0.9, while the CFI

value exceeds 0.9, where a value of 1.0 indicates an accurate fit. Thus, the model is suitable for further study.

Table 7.5

Final Reliability and Validity of CFA Model for the Factors of Perceived Environmental Support

Factors of Perceived Environmental Support	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Perceived Educational Support (PES)	PES 1	0.89**	0.93	0.79	0.94
	PES 2	0.92**			
	PES 3	0.91**			
	PES 4	0.84**			
Perceived Relational Support (PRS)	PRS 1	0.76**	0.92	0.75	0.92
	PRS 2	0.91**			
	PRS 3	0.90**			
	PRS 4	0.86**			
Perceived Structural Support (PSS)	PSS 1	0.82**	0.89	0.71	0.90
	PSS 2	0.89**			
	PSS 3	0.86**			
	PSS 4	0.78**			

Source: Primary data

*** denotes significant at 1% level*

From Table 7.5 above, all factor loadings are higher than the specified cut-off value of 0.5, proving the constructs are feasible. After collecting all the data, the researcher used Cronbach's Alpha to assess the data's reliability. The study result reveals that Cronbach's Alpha exceeds 0.8, indicating that the construct's factors are reliable. Moreover, the Composite reliability scores are higher than 0.9, indicating that all constructs have good internal consistency reliability. Further, AVE values exceeded the recommended cut-off threshold of >0.5. Therefore, the data is suitable for modelling and analysis since all requirements are met.

Table 7.6

Discriminant Validity among the Factors of Perceived Environmental Support

Constructs	PES	PRS	PSS
PES	**(0.89)**		
PRS	0.45	**(0.87)**	
PSS	0.54	0.47	**(0.84)**

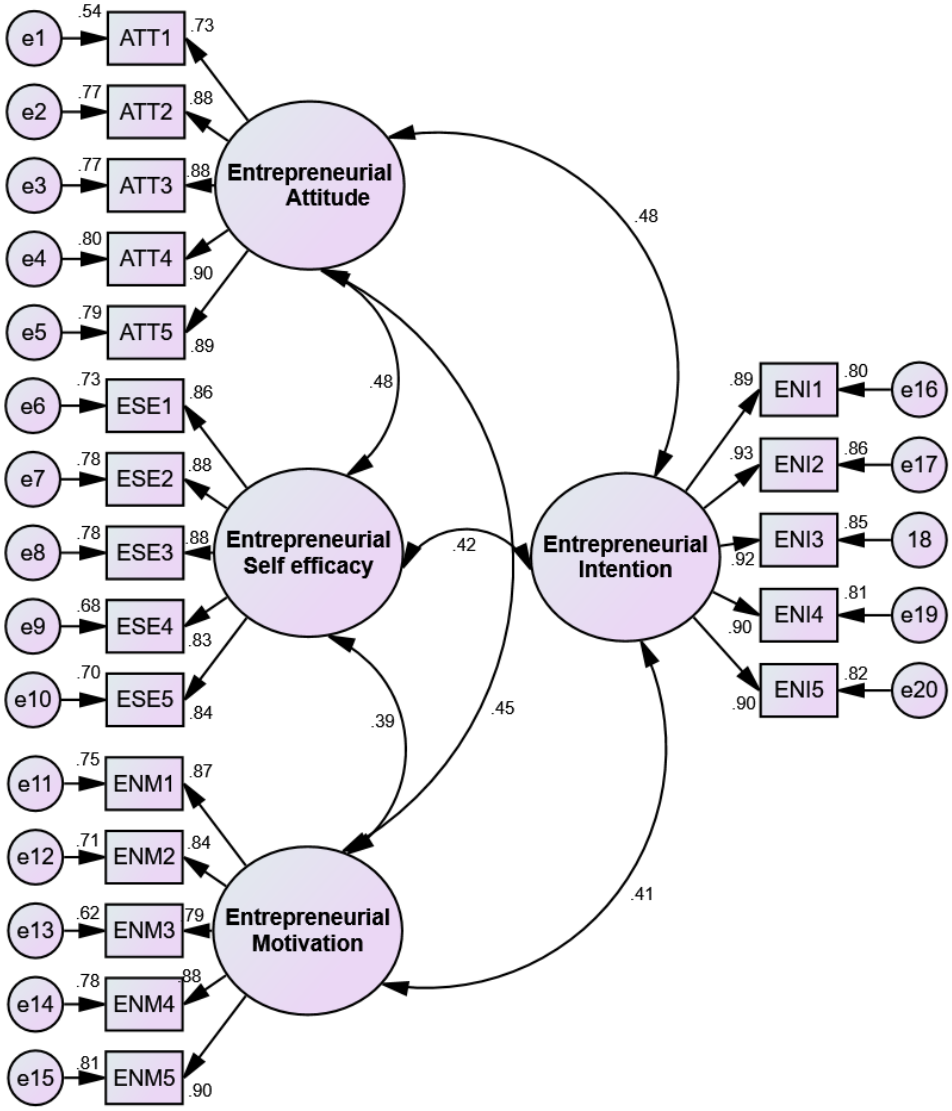
Source: Primary data

The table above shows Average Variance Extracted values and latent variable relationships. The square roots of the AVE scores should be larger than the inter-construct latent variable correlation values, indicating no association. The table above shows that the square root of AVE exceeds the inter-construct latent construct correlation value. Hence, the constructs are unrelated and the factors of perceived environmental support are discriminatory.

7.3.3 Confirmatory Factor Analysis for Factors of Psychological Characteristics and Entrepreneurial Intention

Psychological characteristics refer to an individual's thoughts, feelings, and behaviour as influenced by cognitive, emotional, and social factors. In the present study, entrepreneurial attitude, self-efficacy, and motivation are considered psychological characteristics as they significantly impact entrepreneurial intention. However, entrepreneurial intention is a person's conscious decision and desire to engage in entrepreneurial activity and is considered to be the dependent variable for the study. A positive entrepreneurial attitude reflects a favorable evaluation of entrepreneurship as a career choice, while self-efficacy refers to an individual's belief in their ability to successfully undertake entrepreneurial tasks and challenges. Additionally, entrepreneurial motivation represents the internal drive and desire to pursue entrepreneurial opportunities and take initiative.

Figure 7.3
Confirmatory Factor Analysis for Factors of Psychological Characteristics and Entrepreneurial Intention



Source: Primary data

Table 7.7
Model Fit Indices for the Factors of Psychological Characteristics and Entrepreneurial Intention

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	3.254	0.000	0.984	0.964	0.992	0.048
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

Source: Primary data

Table 7.7 reveals that if the degree of freedom of the chi-square value is under 5, a model can be considered feasible. The value of 3.254 falls inside the permitted range for the maximum value. Moreover, the RMSEA is 0.048, which is significantly lower than the required 0.08. Furthermore, all of the fit indices, GFI, AGFI, and CFI, are greater than 0.9. A value of 1.0 implies an exact fit. As a result, the model is appropriate for further research.

Table 7.8

Final Reliability and Validity of CFA Model for the Factors of Psychological Characteristics and Entrepreneurial Intention

Factors of Psychological Characteristics and Entrepreneurial Intention	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Entrepreneurial Attitude (ATT)	AAT 1	0.73**	0.92	0.73	0.93
	AAT 2	0.88**			
	AAT 3	0.88**			
	AAT 4	0.90**			
	AAT 5	0.89**			
Entrepreneurial Self-efficacy (ESE)	ESE 1	0.86**	0.93	0.73	0.93
	ESE 2	0.88**			
	ESE 3	0.88**			
	ESE 4	0.83**			
	ESE 5	0.84**			
Entrepreneurial Motivation (ENM)	ENM 1	0.87**	0.93	0.73	0.93
	ENM 2	0.84**			
	ENM 3	0.79**			
	ENM 4	0.88**			
	ENM 5	0.90**			
Entrepreneurial Intention (ENI)	ENI 1	0.89**	0.95	0.83	0.96
	ENI 2	0.93**			
	ENI 3	0.92**			
	ENI 4	0.90**			
	ENI 5	0.90**			

Source: Primary data

*** denotes significant at 1% level*

The table above shows that all factor loadings are above the recommended threshold of 0.5, validating the constructs. After testing the data's reliability with Cronbach's Alpha, the study found results larger than 0.8, indicating the construct's factors'

reliability. Moreover, the composite reliability exceeds 0.9, suggesting good internal consistency across all constructs. Further, AVE readings also surpass the suggested threshold of >0.5. Therefore, the data can be analysed and modelled, provided all conditions are met.

Table 7.9

Discriminant Validity of the CFA Model for the Factors of Psychological Characteristics and Entrepreneurial Intention

Constructs	ATT	ESE	ENM	ENI
ATT	**(0.85)**			
ESE	0.48	**(0.85)**		
ENM	0.45	0.39	**(0.85)**	
ENI	0.48	0.42	0.41	**(0.911)**

Source: Primary data

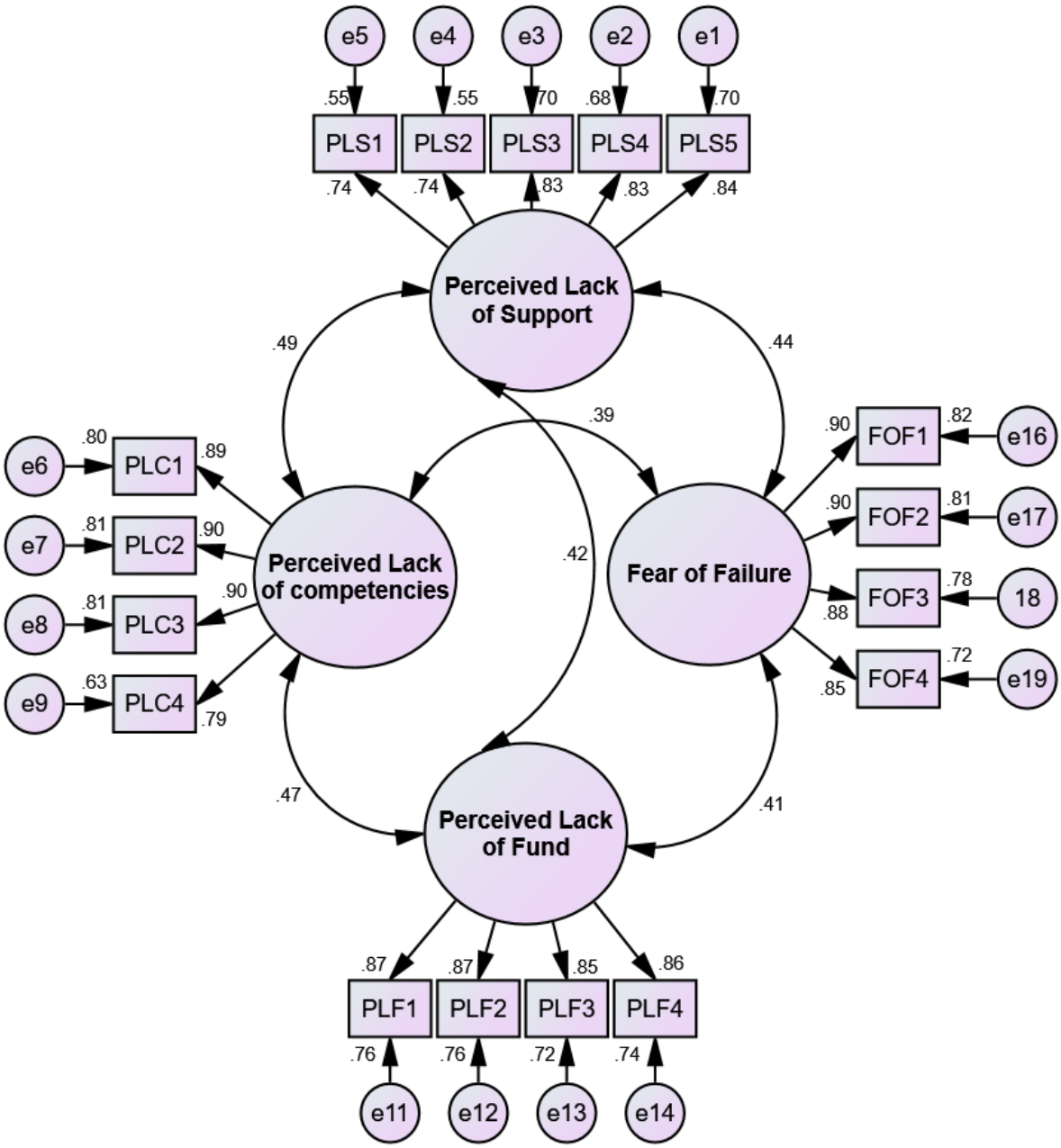
Table 7.9 reveals the average square root of the standard deviation of the data, the extracted values, and the associations between the latent variables. In order to disprove the existence of a connection between the two variables, the square roots of the AVE scores need to be greater than the correlation values between the inter-construct latent variables. The data shown in the table above demonstrates that the dimensions are not related to one another and that the notions of psychological characteristics and entrepreneurial intentions are discriminant.

7.3.4 Confirmatory Factor Analysis for Factors of Perceived Entrepreneurial Barriers

Perceived barriers are subjective assessments of impediments or difficulties in undertaking entrepreneurial activity. And may have a detrimental influence on students' entrepreneurial intentions. The main barriers identified from the review of literature are classified into four categories: perceived lack of funds, perceived lack of competencies, perceived lack of support, and fear of failure. These factors were selected based on their relevance to entrepreneurship and their ability to influence an individual’s entrepreneurial attitude, self-efficacy, and intention.

Figure 7.4

Confirmatory Factor Analysis for the Factors of Perceived Entrepreneurial Barriers



Source: Primary data

Table 7.10
Model Fit Indices for the Factors of Perceived Entrepreneurial Barriers

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	3.085	0.000	0.987	0.974	0.991	0.051
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08

Source: Primary data

Table 7.10 displays the CFA model fit indices used for evaluating the comprehensive model fit. A Chi-Square to degrees of freedom ratio of less than 5 is deemed acceptable for a model. The obtained value of 3.085 falls comfortably within the recommended upper limit. Furthermore, the root mean square error of approximation (RMSEA) attained a value of 0.051, which is significantly lower than the commonly accepted threshold of 0.08. Additionally, it is notable that the GFI and AGFI values surpass 0.9, and furthermore, the CFI value also exceeds 0.9, where a value of 1.0 denotes an accurate fit. Therefore, the model exhibits a high level of appropriateness and warrants consideration for additional analysis.

Table 7.11
Final Reliability and Validity of CFA Model for the Factors of Perceived Entrepreneurial Barriers

Factors of Perceived Entrepreneurial Barriers	Item code	Factor loading	Cronbach's Alpha Final	AVE	Composite Reliability
Perceived Lack of Support (PLS)	PLS 1	0.74**	0.89	0.64	0.90
	PLS 2	0.74**			
	PLS 3	0.83**			
	PLS 4	0.83**			
	PLS 5	0.84**			
Perceived Lack of Competencies (PLC)	PLC 1	0.89**	0.89	0.76	0.93
	PLC 2	0.90**			
	PLC 3	0.90**			
	PLC 4	0.79**			
Perceived Lack of Fund (PLF)	PLF 1	0.87**	0.89	0.75	0.92
	PLF 2	0.87**			
	PLF 3	0.85**			
	PLF 4	0.86**			
Fear of Failure (FOF)	FOF 1	0.90**	0.89	0.78	0.93
	FOF 2	0.90**			
	FOF 3	0.88**			
	FOF 4	0.85**			

*Source: Primary data.** denotes significant at 1% level*

The above table 7.11 shows that all factor loadings are higher than the suggested threshold of 0.5. This proves that the constructs are valid. Cronbach's Alpha test was used to figure out how reliable the data was. The result value indicates a number greater than 0.8, which shows that the factors used to measure the construct were reliable. Moreover, the composite reliability numbers are greater than 0.9, which shows that all constructs have a high level of internal consistency reliability. Also, the Average Variance Extracted (AVE) values are higher than the suggested limit of >0.5. Since all of the requirements are met, the data can be used for further research and modelling.

Table 7.12

Discriminant Validity among the Factors of Perceived Entrepreneurial Barriers

Constructs	PLS	PLC	PLF	FOF
PLS	**(0.80)**			
PLC	0.49	**(0.87)**		
PLF	0.42	0.47	**(0.87)**	
FOF	0.44	0.39	0.41	**(0.88)**

Source: Primary data

The square roots of the AVE scores should be higher than the inter-construct latent variable correlation values to show that there is no connection between them. Table 7.12 above shows that the constructs are not linked and that the factors causing perceived entrepreneurial barriers are distinct.

PART – B

7.4 Co-variance-Based Structural Equation Modeling Technique

Structural equation modeling (SEM) is a statistical technique that is utilized to investigate the structural relationships among variables. It is a multivariate analysis approach that is commonly employed in research. The methodology integrates both factor analysis and multiple regression analysis. This approach is gaining favour among numerous researchers due to its ability to estimate multiple and interrelated dependence within a single analysis. The methodology utilized in this approach primarily utilizes two distinct categories of variables, namely endogenous variables

(which are dependent variables) and exogenous variables (which are independent variables). Covariance Based Structural Equation Modelling (CB-SEM) is a confirmatory statistical technique that is commonly employed for the purpose of hypothesis testing and the evaluation of a structural theory related to a particular phenomenon. The structural equation modelling technique employed in this study was executed through the utilization of the IBM SPSS AMOS 21 software package.

OBJECTIVE III

To Examine the Intervening Role of Entrepreneurial Attitude Among the Students of HEIs in Kerala in the Relationship Between Entrepreneurial Personality Traits and Entrepreneurial Intention.

7.5 Entrepreneurial Personality Traits and Entrepreneurial Intention – Extracting the Intervening Role of Entrepreneurial Attitude

The third objective of the study is to investigate the intervening effect of entrepreneurial attitude among the students of higher education institutions in Kerala in the relationship between entrepreneurial personality traits and entrepreneurial intentions. The bootstrapping testing process and the IBM SPSS AMOS Graphics 21 software programme were utilised in order to establish the significance of the mediation results. The mediation model was constructed utilising the IBM SPSS AMOS 21 software and the covariance-based structural equation modelling technique. The utilisation of bootstrapping technique was employed to assess the robustness of the model in representing the mediation effect.

By investigating the intervening effect of entrepreneurial attitude, the study provides valuable insights into the psychological mechanisms that link personality traits to entrepreneurial intentions. Understanding how attitude mediates this relationship is crucial for developing effective interventions and support programs aims at fostering an entrepreneurial mindset among students.

7.5.1 Hypotheses for the Mediation Model

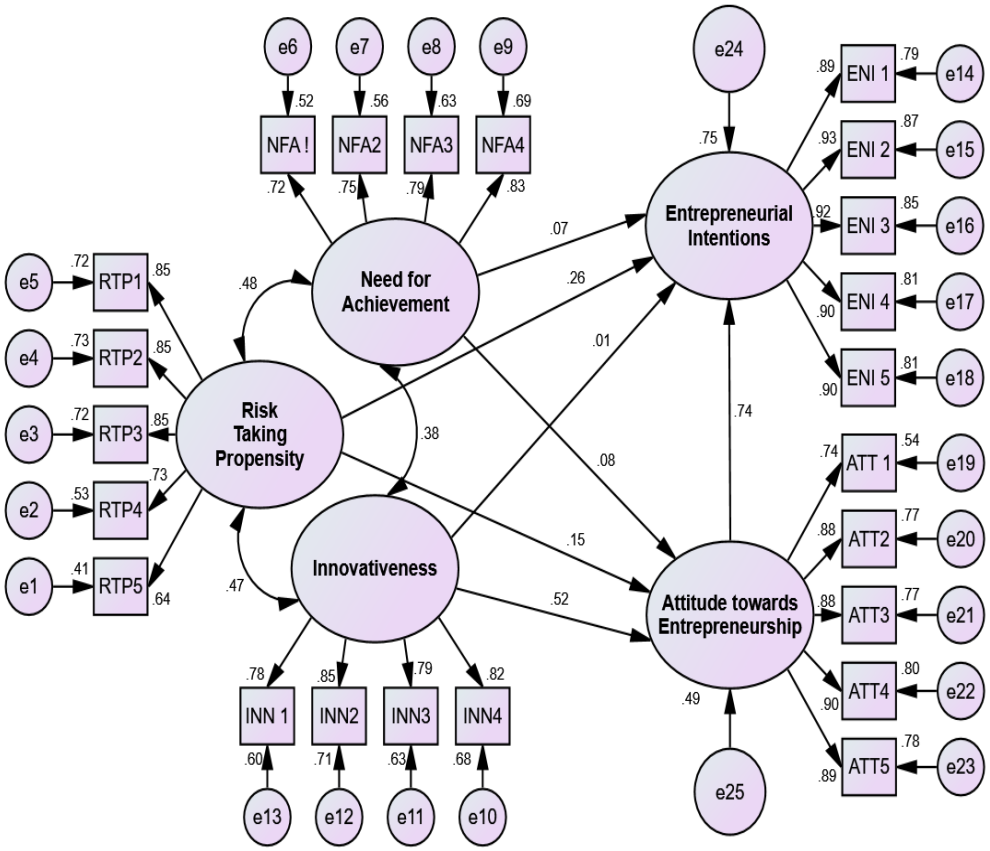
Sl. No.	Hypotheses for the Mediation Model
MEH.1	The need for achievement has a positive, direct, and significant effect on entrepreneurial intention
MEH.2	Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial intention
MEH.3	Innovativeness has a positive, direct, and significant effect on entrepreneurial intention
MEH.4	The need for achievement has a positive, direct, and significant effect on entrepreneurial attitude
MEH.5	Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial attitude
MEH.6	Innovativeness has a positive, direct, and significant effect on entrepreneurial attitude
MEH 7	Entrepreneurial attitude has a positive, direct, and significant effect on entrepreneurial intentions
MEH.8	Entrepreneurial attitude plays a mediating role in the relationship between the need for achievement and entrepreneurial intention
MEH.9	Entrepreneurial attitude plays a mediating role in the relationship between risk-taking propensity and entrepreneurial intention
MEH.10	Entrepreneurial attitude plays a mediating role in the relationship between innovativeness and entrepreneurial intention

Source: Developed by the researcher

The formulation of hypotheses stated in the current chapter was previously covered in Chapter two of the present study. A thorough study of relevant literature and theoretical frameworks was undertaken in Chapter two in order to identify the key factors and their possible linkages with entrepreneurial intention. The hypotheses stated in the present chapter are based on earlier studies and are built on the existing body of knowledge.

7.5.2 Path Analysis

Figure 7.5
Analysis of the Mediating Effect of Entrepreneurial Attitude on Entrepreneurial Personality Traits and Entrepreneurial Intentions



Source: Primary data

Table 7.13

Fit Indices for Testing the Mediating Effect of Entrepreneurial Attitude on Entrepreneurial Personality Traits and Entrepreneurial Intentions

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	3.471	0.000	0.974	0.951	0.989	0.048
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary data

In order to establish the accuracy of a model, it is necessary for the ratio of chi-square to degrees of freedom to be less than 5. The present instance denotes a value of 3.471, which exhibits a marked decrease in comparison to the uppermost recommended threshold. Moreover, the root mean square error of approximation (RMSEA) obtained a score of 0.048, indicating statistical significance as it falls below the acceptable threshold of 0.08. Additionally, the GFI, AGFI, and CFI indices exhibit values exceeding 0.9. A value of 1.0 denotes that the goodness of fit is acceptable. Therefore, it can be asserted that the model is a good fit.

Table 7.14

Path Values Associated with Direct Effect Among the Factors of Entrepreneurial Attitude, Entrepreneurial Personality Traits and Entrepreneurial Intentions

Construct	Path	Construct	Estimate	S. E	C. R	P-value	Result
Entrepreneurial Intention	←	**Need for Achievement**	0.07	0.074	1.67	0.087^{NS}	***Not Significant***
Entrepreneurial Intention	←	**Risk-taking Propensity**	0.26	0.068	4.84	<0.001**	***Significant***
Entrepreneurial Intention	←	**Innovativeness**	0.01	0.71	0.178	0.954^{NS}	***Not Significant***
Entrepreneurial Attitude	←	**Need for Achievement**	0.08	0.72	1.85	0.068^{NS}	***Not Significant***
Entrepreneurial Attitude	←	**Risk-taking Propensity**	0.15	0.69	3.01	<0.001**	***Significant***
Entrepreneurial Attitude	←	**Innovativeness**	0.52	0.75	8.67	<0.001**	***Significant***
Entrepreneurial Intention	←	**Entrepreneurial Attitude**	0.74	0.84	12.54	<0.001**	***Significant***

Source: Primary data
*** denotes significant at 1% level*

The above figure 7.5 and table 7.14 demonstrate the direct relationships between various factors of entrepreneurial personality traits and entrepreneurial intentions. The standardised beta values and p-values for each relationship are as follows: need for achievement and entrepreneurial intention (0.07, p=0.087), risk-taking propensity and entrepreneurial intention (0.26, p=0.001), innovativeness and entrepreneurial intentions (0.01, p=0.954), need for achievement and entrepreneurial attitude (0.08, p=0.068), risk-taking propensity and entrepreneurial attitude (0.15, p=0.001), innovativeness and entrepreneurial attitude (0.52, p=0.001)and entrepreneurial attitude and entrepreneurial intentions (0.74, p=0.001). The standardised regression coefficients for each path indicate the degree to which the dependent construct varies with a one standard deviation change in the independent construct.

Table 7.15
Mediating Testing in the Model (Direct and Mediation Effect Paths) using Bootstrapping Procedure
(Entrepreneurial Attitude Mediates the Relationship Between Entrepreneurial Personality Traits and Entrepreneurial Intention)

Independent construct	Mediation construct	Dependent construct	Direct effect	Indirect effect (Mediation effect)	Result
Need for Achievement	Entrepreneurial Attitude	Entrepreneurial Intention	0.07^{NS}	0.06 ^{NS}	**No Mediation**
Risk-taking Propensity	Entrepreneurial Attitude	Entrepreneurial Intention	0.26 **	0.11*	**Partial Mediation**
Innovativeness	Entrepreneurial Attitude	Entrepreneurial Intention	0.01 ^{NS}	0.38**	**Full Mediation**

Source: Primary data
The symbol "" is used to indicate a significant level of 1% and "**" indicates significance at 5% level; The values of indirect effect are calculated through bootstrapping method using 5,000 bootstrap samples.*

The findings of the study indicate that there exists insignificant direct relationship between the need for achievement and entrepreneurial intention (0.07, p = 0.087). Besides this, there is no positive and statistically significant mediation effect observed between the need for achievement and entrepreneurial intention through

entrepreneurial attitude. A noteworthy effect exists between a student's propensity for risk-taking and their intention to engage in entrepreneurial activities (r = 0.26, p = 0.001). Additionally, a positive and significant mediating effect is observed between students' risk-taking propensity and their entrepreneurial intention, which is mediated by their entrepreneurial attitude. The research indicates that there is no direct and significant effect between innovativeness and entrepreneurial intention (0.01, p = 0.954). However, there exists a positive and significant mediation effect between innovativeness and entrepreneurial intention through the pathway of entrepreneurial attitude with a mediation beta value of 0.38 at a significance level of 5%. The finding suggests that the model exhibits full mediation, given that the direct effect of this pathway lacks statistical significance. The study employs bootstrapping techniques with 5000 bootstrap samples used with the IBM-SPSS-AMOS Graphics 21 software package to examine the mediating effect in the pathways.

7.5.3 Discussion of the Findings

The present study uses direct and indirect techniques to assess entrepreneurial intention by considering entrepreneurial attitude as an intervening variable and selecting entrepreneurial personality traits consisting of the need for achievement, risk-taking propensity, and innovativeness as independent variables. The first four hypotheses were framed to testify the direct influence of entrepreneurial attitude, need for achievement, risk-taking propensity, and innovativeness on entrepreneurial intention. The next three hypotheses were tested to examine the direct effect of selected entrepreneurial personality traits and entrepreneurial attitudes. And the final three hypotheses were formulated to examine the mediating effect of entrepreneurial attitude in the relationship between selected entrepreneurial personality traits and entrepreneurial intention.

The analysis emphasises the fact that students' attitude towards entrepreneurship is the strongest predictor of their intention to pursue entrepreneurship. Lüthje and Franke (2003), in their study among MIT students, also revealed entrepreneurial attitude as the strongest predictor of entrepreneurial intention. The standardised beta value and p-value for the direct relationship between entrepreneurial attitude and entrepreneurial intention are .74 and <0.001** respectively. This means that a one standard deviation

unit change in entrepreneurial attitude (independent variable) causes a 0.74 standardised beta value change in entrepreneurial intention (dependent variable). This implies that the entrepreneurial attitude among the students of HEIs in Kerala is positively and significantly contributing to entrepreneurial intention. A significant and meaningful effect of entrepreneurial attitude on entrepreneurial intention has been found in many previous studies (Anjum et al., 2020; Anwar et al., 2021; Law and Breznik, 2017; Munir et al., 2019; Naushad, 2018; Yasa et al., 2018; Zhuang et al., 2022).

The study highlights the fact that the students' need for achievement, which reflects their desire to excel and succeed, does not appear to foster a positive attitude towards entrepreneurship, nor does it seem to cultivate an intention to pursue entrepreneurship after completing their studies. Ultimately, this lack of entrepreneurial orientation may hinder their ability to engage in entrepreneurial activities. The standardised beta value and p-value for the direct relationship between the need for achievement and entrepreneurial intention are 0.07 and 0.087, respectively. The result shows that the need for achievement does not have a positive, direct, or significant effect on entrepreneurial intention. The need for achievement is not found to be a significant factor contributing to entrepreneurial intention among the students of HEIs in Kerala. This implies that other individual factors or external factors may have a stronger influence on entrepreneurial intention compared to the need for achievement. The findings were supported by the study conducted among Indonesian and Norwegian students by Kristiansen and Indarti (2004), in which the need for achievement was found not to be a significant contributor to entrepreneurial intention. A similar result was also found by Indarti & Kristiansen (2003) and Sun et al. (2020). However, this is in contrast with the findings of many studies that show a direct, positive, and significant relationship between the need for achievement and entrepreneurial intention (Anwar & Saleem, 2019; Asmara et al., 2016; Çolakoğlu & Gözükara, 2016; Fauzia & Agustina, 2021; Shahneaz et al., 2020). Moreover, the standardised beta value and p-value for the direct relationship between the need for achievement and entrepreneurial attitude are 0.08 and 0.068 ^{NS}, respectively. The result shows that the need for achievement does not have a significant relationship with entrepreneurial attitudes among the students of HEIs in Kerala. The students of HEIs in Kerala have

high motivation for achievement, but that need for success is not contributing to a positive attitude towards business and is not leading to the desire to start a business. Attitude formation may depend on other factors beyond the need for achievement. A similar result was found in a study conducted by Fauzia and Agustina (2021) among Generation Z. However, this is in contrast with the findings of Mahmood et al. (2020), which show a direct, positive, and significant relationship between the need for achievement and attitude towards business. Thus, the entrepreneurial attitude was found to be inefficient in mediating the relationship between the need for achievement and the entrepreneurial intention among the students of HEIs in Kerala. Hence, it can be inferred that there is no noticeable direct or mediating effect present in these pathways. While the need for achievement is often associated with entrepreneurial personality traits, the present study found that it does not contribute to the formation of entrepreneurial intention. These findings imply that other factors beyond the need for achievement, such as personal and contextual, may play a more significant role in shaping entrepreneurial intention and attitude among the students of HEIs in Kerala. The result was clearly interesting for future study since a high attitude towards business did not mediate the need for achievement with a high mean score and a strong intention to become an entrepreneur. The results of the study contradicted those of Asmara et al. (2016), who found that entrepreneurial attitude acts as a mediator between the need for achievement and entrepreneurial intention among management students at Malang University. Similarly, in a study conducted by Naushad (2018), it was found that the need for achievement leads to a positive attitude towards business, which then leads to the intention to be involved in the field of entrepreneurship.

The findings indicate that an upward trend exists between students' risk-taking propensity and their entrepreneurial intentions. Moreover, the inclination of students towards taking risks can foster a favourable attitude towards entrepreneurship, ultimately culminating in the desire to initiate entrepreneurial ventures. The standardised beta value and p-value for the direct relationship between risk-taking propensity and entrepreneurial intention are 0.26 and <0.001**, respectively. The study result proves that there exists a positive, direct, and significant relationship between risk-taking propensity and entrepreneurial intention among the students of HEIs in Kerala. It has been proven in many studies that an individual who is prepared

to take risks tends to choose entrepreneurship. (Koe, 2016; Kumar et al., 2021; Manik & Kusuma, 2021). Many studies have backed up and continued to back up the notion that people who are willing to start a business are more likely to take the risk (Colman et al., 2019; Özarallı & Rivenburgh, 2016; Shahzad et al., 2021). Similarly, a significant and meaningful relationship exists between a student's propensity for risk-taking and their attitude towards engaging in entrepreneurial activities, with a standardised beta value and p-value of 0.15 and <0.001*, respectively. Thus, it is evident that the risk-taking propensity of higher education students in Kerala significantly contributes to their positive entrepreneurial attitude. A similar result was found in many empirical studies where it was proven that risk-taking propensity has a positive, direct, and significant effect on attitude towards business (Asmara et al., 2016; Anwar et al., 2021; Munir et al., 2019; Naushad, 2018; Zhuang et al., 2022). Furthermore, a positive and significant mediating impact of entrepreneurial attitude on the link between students' risk-taking propensity and entrepreneurial intention was established. The findings imply that students of HEIs in Kerala who are more inclined to take risks are more likely to have a stronger desire to become entrepreneurs and possess a positive attitude towards entrepreneurship. The statement denotes the presence of a partial mediation effect within the model. When individuals possess a greater risk-taking capacity, it leads to the development of a positive attitude towards entrepreneurship, which, in turn, significantly influences their intention to engage in entrepreneurial activities. The findings are supported by the studies conducted by Ahmed et al. (2021) and Naushad (2018).

The findings of the study also denote that there is no favourable correlation between the level of innovativeness demonstrated by students and their attraction towards entrepreneurial endeavours. But the innovative behaviour of students can boost a positive attitude towards entrepreneurship, ultimately leading to a desire to initiate innovative ventures. The standardised beta value and p-value for the direct relationship between innovativeness and entrepreneurial intention are 0.01 and <0.954, respectively. This indicates that the relationship between innovativeness and entrepreneurial intention was found to be insignificant in the study. The innovative characteristics of higher education students in Kerala do not directly contribute to their entrepreneurial intentions. A similar result was found in studies conducted by Colman

et al. (2019) and Arroyo-López et al. (2021). But at the same time, various studies have confirmed a direct and significant relationship between innovativeness and entrepreneurial intention (Çolakoğlu & Gözükara, 2016; Shahzad et al., 2021; Wathanakom et al., 2020). The study indicates that, though innovativeness does not significantly contribute to entrepreneurial intention, innovativeness leads to an attitude towards business, which can further lead to entrepreneurial intention. A similar result was found in a comparative study conducted by Law and Breznik (2017) among university students in Hong Kong. The standardised beta value and p-value for the direct relationship between innovativeness and entrepreneurial attitude are 0.52 and <0.001** respectively, indicating the link between innovativeness and entrepreneurial attitude is positive and significant, as the same was found in many studies (Manik & Kusuma, 2021; Ahmed et al., 2021; Anjum et al., 2020; Zhuang et al., 2022). Furthermore, a positive and significant mediating impact of entrepreneurial attitude on the link between students' innovativeness and entrepreneurial intention was established. The results suggest that while innovativeness may not directly affect entrepreneurial intention, it does have a considerable impact on entrepreneurial attitude. Hence, there exists a complete mediation. Being innovative does not directly determine an individual's desire to start a business, but it greatly affects their mindset and attitude towards entrepreneurship. Innovative individuals are more likely to be open to new ideas, willing to take risks, and adaptable to change, which contribute to their overall inclination and readiness to engage in entrepreneurial activities. A similar finding was noted by Law and Breznik (2017).

These findings offer insight into the multifaceted nature of entrepreneurial intention and its relationship with selected personality traits and entrepreneurial attitudes. While the need for achievement and innovativeness may not have a direct impact on entrepreneurial intention, risk-taking propensity emerges as a significant determinant. Furthermore, attitude plays an intervening role in linking risk-taking propensity and innovativeness with entrepreneurial intention.

Table 7.16

Summary of Hypotheses Testing Results: Direct Effects of Entrepreneurial Personality Traits and Entrepreneurial Attitude on Entrepreneurial Intention in the Mediation Model.

Construct	Path	Construct	Hypotheses	Result
Entrepreneurial Intention	←	**Need for Achievement**	The need for achievement has a positive, direct, and significant effect on entrepreneurial intention	**Not Significant**
Entrepreneurial Intention	←	**Risk-taking Propensity**	Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial intention	**Significant**
Entrepreneurial Intention	←	**Innovativeness**	Innovativeness has a positive, direct, and significant effect on entrepreneurial intention	**Not Significant**
Entrepreneurial Attitude	←	**Need for Achievement**	The need for achievement has a positive, direct, and significant effect on entrepreneurial attitude	**Not Significant**
Entrepreneurial Attitude	←	**Risk-taking Propensity**	Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial attitude	**Significant**
Entrepreneurial Attitude	←	**Innovativeness**	Innovativeness has a positive, direct, and significant effect on entrepreneurial attitude	**Significant**
Entrepreneurial Intention	←	**Entrepreneurial Attitude**	Entrepreneurial attitude has a positive, direct, and significant effect on entrepreneurial intention	**Significant**

Source: Primary data

Table 7.17

Summary of Hypotheses Testing Results: Indirect Effects in the Mediation Model with Entrepreneurial Attitude as a Mediating Variable

Independent construct	Mediation construct	Dependent construct	Mediation Hypotheses	Result
Need for Achievement	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial Attitude plays a mediating role in the relationship between the need for achievement and entrepreneurial intention	**No mediation**
Risk-taking propensity	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial Attitude plays a mediating role in the relationship between risk-taking propensity and entrepreneurial intention	**Partial mediation**
Innovativeness	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial Attitude plays a mediating role in the relationship between Innovativeness and entrepreneurial intention	**Full mediation**

Source: Primary data

The current section pertains to the third objective of the research, which aimed to investigate the mediating effect of entrepreneurial attitude on the link between entrepreneurial personality traits of higher education students in Kerala and their entrepreneurial intention. Based on the results of the mediation analysis, it can be concluded that the entrepreneurial attitude does not serve as a mediator between the need for achievement and entrepreneurial intentions. However, it does exhibit a partial mediation effect between risk-taking propensity and entrepreneurial intentions. Furthermore, a complete mediation effect of entrepreneurial attitude appears between the innovativeness of higher education students in Kerala and their entrepreneurial intention.

OBJECTIVE IV

To Examine the Mediating Role of Entrepreneurial Motivation Among the Students of HEIs in Kerala in the Relationship Between Perceived Environmental Support and Entrepreneurial Intention

7.6 Perceived Environmental Support and Entrepreneurial Intention: Extracting the Intervening Role of Entrepreneurial Motivation

The fourth research objective of the study is examined in this section, which is the role of entrepreneurial motivation among higher education students in Kerala in mediating the relationship between perceived environmental support and entrepreneurial intention. This section pertains to two distinct sub-sections. Section A examines the mediating effect of entrepreneurial motivation among higher education students in Kerala with respect to the relationship between general perceived environmental support and entrepreneurial intention. Section B describes the mediating role of entrepreneurial motivation among the students of HEIs in Kerala in the relationship between three distinct factors of perceived environmental support, namely perceived educational support, perceived relational support, perceived structural support, and entrepreneurial intention. The IBM SPSS AMOS Graphics 21 software programme was used for examining the mediation analysis, and the bootstrapping testing procedure was used to determine the significance of the mediation results.

Section A

7.6.1 The Intervening Effect of Entrepreneurial Motivation among the Students of HEIs in Kerala with Respect to the Relationship Between General Perceived Environmental Support and Entrepreneurial Intention

The study aims to understand how the level of perceived environmental support influences students' entrepreneurial intentions through the mediating role of their entrepreneurial motivation. By exploring this mediation process, the research seeks to uncover the underlying psychological mechanisms that link external support systems to students' intentions to embark on entrepreneurial endeavours.

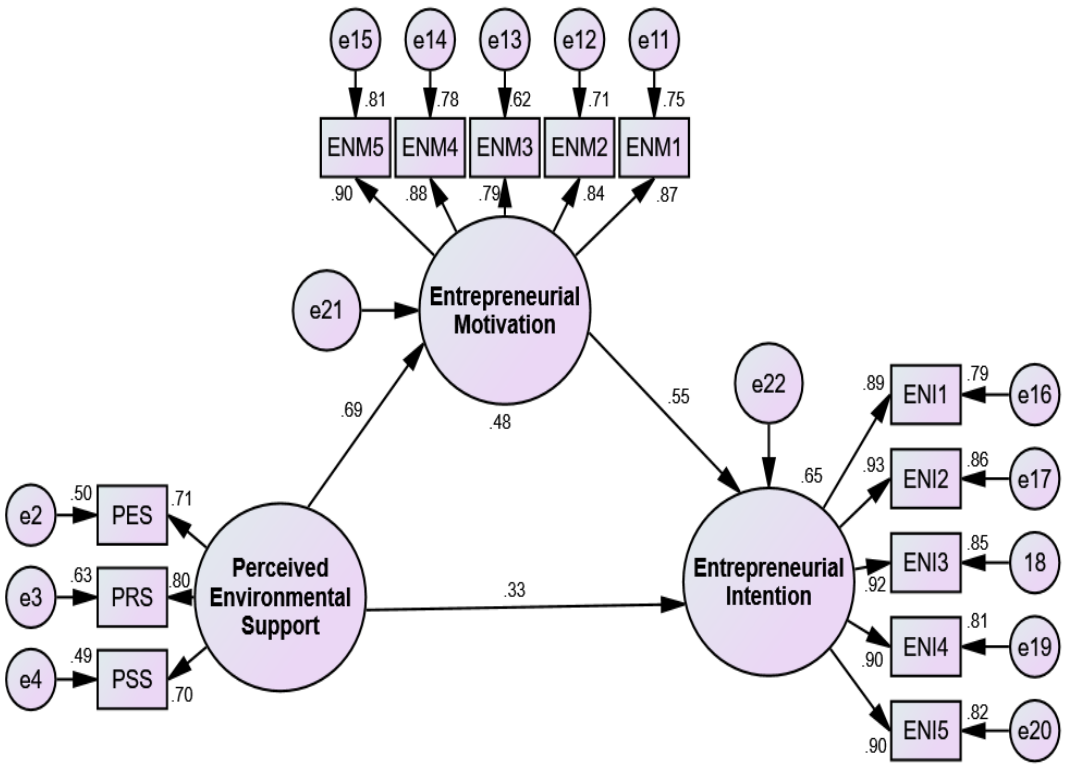
7.6.1.1 Hypotheses for the Mediation Model

Sl. No.	Hypotheses for the Mediation Model
MEH.1	Perceived environmental support has a positive, direct, and significant effect on entrepreneurial intention.
MEH.2	Perceived environmental support has a positive, direct, and significant effect on entrepreneurial motivation.
MEH.3	Entrepreneurial motivation has a positive, direct, and significant effect on entrepreneurial intention.
MEH.4	Entrepreneurial motivation has an intervening effect in the relationship between perceived environmental support and entrepreneurial intention

7.6.1.2 Path Analysis

Figure 7.6

Mediation Analysis Between Perceived Environmental Support and Entrepreneurial Intention via Entrepreneurial Motivation



Source: Primary data

Table 7.18

Fit Indices for Testing the Mediating Effect of Entrepreneurial Motivation on Perceived Environmental Support and Entrepreneurial Intentions

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	2.245	0.000	0.996	0.980	0.998	0.025
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary data

For a model to be declared valid, the chi-square to degrees of freedom ratio must be smaller than 5. In this case, the value is 2.245, which is significantly lower than the maximum recommended value. Moreover, the RMSEA score is 0.025, which is significantly lower than the permissible threshold of 0.08. Furthermore, the GFI, AGFI, and CFI values are all greater than 0.9. A value of 1.0 indicates that the fit is satisfactory. As a result, it is acceptable to infer that the mediation model is effective.

Table 7.19
Path Values Associated with Direct Effect Among the Factors of Entrepreneurial Motivation, Perceived Environmental Support and Entrepreneurial Intentions

Construct	Path	Construct	Estimate	S.E	C. R	P-value	Result
Entrepreneurial Intention	←	**Perceived Environmental Support**	0.33	0.085	7.96	<0.001**	Significant
Entrepreneurial Motivation	←	**Perceived Environmental Support**	0.69	0.074	15.02	<0.001**	Significant
Entrepreneurial Intention	←	**Entrepreneurial Motivation**	0.55	0.04	11.65	<0.001**	Significant

Source: Primary data
*** denotes significant at 1% level*

Figure 7.6 and Table 7.19 above demonstrate the direct link between perceived environmental support and entrepreneurial intention, perceived environmental support and entrepreneurial motivation, and entrepreneurial motivation and entrepreneurial intention among students of HEIs in Kerala. It can be seen that

perceived environmental support has a direct, positive, and significant effect on students' entrepreneurial intention with a path value of 0.33, that perceived environmental support also has a positive and significant effect on entrepreneurial motivation with a path value of 0.69, and that entrepreneurial motivation has a positive and significant effect on entrepreneurial intention with a path value of 0.55. Each path value is a standardised regression coefficient, which represents how much the dependent construct varies when the independent construct changes by one standard deviation unit.

Table 7.20
Mediating Testing in the Model (Direct and Mediation Effect Paths) using Bootstrapping Procedure
(Entrepreneurial Motivation Mediates the Relationship Between Perceived Environmental Support and Entrepreneurial Intention)

Independent construct	Mediation construct	Dependent construct	Direct effect	Indirect effect (Mediation effect)	Result
Perceived Environmental Support	Entrepreneurial Motivation	Entrepreneurial Intention	0.33**	0.38**	**Partial Mediation**

Source: Primary data
*** denotes a 1% significant level; indirect effect values are computed using 5,000 bootstrap samples.*

The test results demonstrate a positive and significant direct effect between perceived environmental support and entrepreneurial intention, as well as a positive and significant mediation effect between perceived environmental support and entrepreneurial intention via entrepreneurial motivation. The bootstrapping (5000 bootstrap samples) technique was used in combination with the IBM-SPSS-AMOS Graphics 21 software package to investigate the mediating effect in the pathway. According to the mediation test results, the mediated effects of this path are only partial, despite the fact that the direct influence between perceived environmental support and entrepreneurial intention remains strong.

7.6.1.3 Discussion of the Findings

The present study employed a direct and indirect approach to assess entrepreneurial intention, with entrepreneurial motivation as an intervening variable and perceived environmental support as an independent variable. Hypotheses were formulated to test the direct link between perceived environmental support and entrepreneurial motivation, perceived environmental support and entrepreneurial intention, and entrepreneurial motivation and intention. Additionally, the intervening role of entrepreneurial motivation in the link between perceived environmental support and entrepreneurial intention was also examined. The study emphasises the existence of partial mediation, which means that there is not only a significant relationship between the mediator (entrepreneurial motivation) and the dependent variable (entrepreneurial intention), but there is also some direct relationship between the independent variable (perceived environmental support) and the dependent variable (entrepreneurial intention). Furthermore, the magnitude of the path values of these two paths demonstrates that the indirect influence is greater than the direct effect. As a result, it can be stated that the entrepreneurial intention of students at HEIs in Kerala is largely determined by their entrepreneurial motivation. If the HEIs, government, and societal community provide adequate environmental support to students in the form of education support, relational support, and structural support, it will aid in the development of entrepreneurial motivation among higher education students. Suzuki et al. (2002), in their study, proposed that environmental and personal factors, including resource and ability management, economic conditions, the company environment, and state laws and regulations, impact entrepreneurial motivation. Similarly, Wu and Mao (2020) proposed that students' perceptions of external environmental resources might influence their entrepreneurial motivation and thereby impact their readiness to engage in entrepreneurial activity. It emphasises the fact that in order to improve entrepreneurial intention among higher education students, it is necessary to provide adequate environmental support to the students from their educational institutions, friends and family members, network connections and the government, which will help them build up enough confidence and motivation, which will ultimately lead to entrepreneurial intention among the students. These findings are consistent with Mohammed's (2019) findings, which revealed that educational

content, relational support from friends and family, and institutional assistance from government agencies all have a substantial influence on graduating students' entrepreneurial intentions. The findings of the present study suggest that fostering and nurturing entrepreneurial motivation is crucial in encouraging individuals to take concrete steps towards entrepreneurship. If someone has a strong inner drive and passion for starting a business, they are more likely to actively pursue their entrepreneurial goals and overcome challenges along the way. Therefore, efforts need be made to inspire and support individuals in developing their entrepreneurial motivation through education, mentorship, and providing resources and opportunities.

Table 7.21

Summary of the Results of the Hypotheses Testing (Direct and Indirect effects) in the Mediation Model

Construct	Path	Construct	Hypotheses	Result
Entrepreneurial Intention	←	**Perceived Environmental Support**	Perceived environmental support has a positive, direct, and significant effect on entrepreneurial intention	**Supported**
Entrepreneurial Motivation	←	**Perceived Environmental Support**	Perceived environmental support has a positive, direct. and significant effect on entrepreneurial motivation	**Supported**
Entrepreneurial Intention	←	**Entrepreneurial Motivation**	Entrepreneurial motivation has a positive, direct. and significant effect on entrepreneurial intention	**Supported**
Entrepreneurial Intention via Entrepreneurial Motivation	←	**Perceived Environmental Support**	Entrepreneurial motivation has an intervening effect in the relationship between perceived environmental support and entrepreneurial intention	**Supported**

Source: Primary data

Section B

7.6.2 The Intervening Effect of Entrepreneurial Motivation among the Students of HEIs in Kerala with Respect to the Relationship Between Perceived Educational, Relational, and Structural Supports and Entrepreneurial Intention

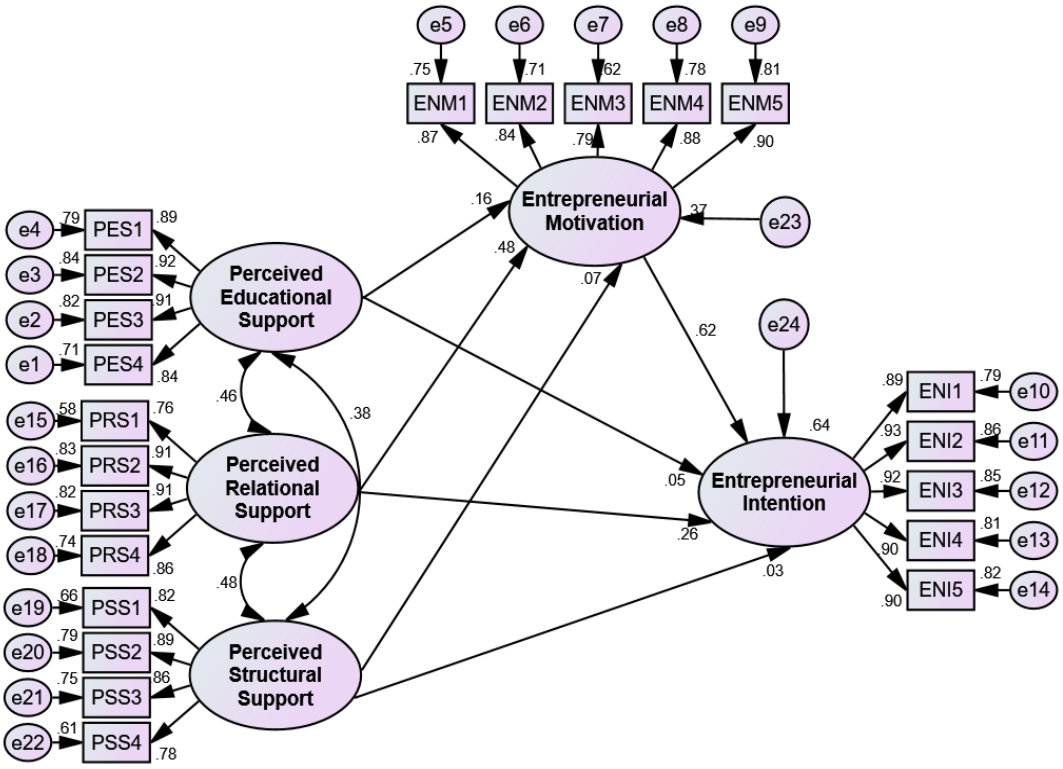
7.6.2.1 Hypotheses for the Mediation Model

SI. No.	Hypotheses for the Mediation Model
MEH.5	Perceived educational support has a positive, direct, and significant effect on entrepreneurial intention
MEH.6	Perceived relational support has a positive, direct, and significant effect on entrepreneurial intention
MEH.7	Perceived structural support has a positive, direct, and significant effect on entrepreneurial intention
MEH.8	Perceived educational support has a positive, direct, and significant effect on entrepreneurial motivation
MEH.9	Perceived relational support has a positive, direct, and significant effect on entrepreneurial motivation
MEH.10	Perceived structural support has a positive, direct, and significant effect on entrepreneurial motivation
MEH.11	Entrepreneurial motivation has an intervening effect in the relationship between perceived educational support and entrepreneurial intention
MEH.12	Entrepreneurial motivation has an intervening effect in the relationship between perceived relational support and entrepreneurial intention
MEH.13	Entrepreneurial motivation has an intervening effect in the relationship between perceived structural support and entrepreneurial intention

The formulation of hypotheses stated above was previously covered in Chapter two of the present study. A thorough study of relevant literature and theoretical frameworks was undertaken in Chapter two in order to identify the key factors and their possible linkages with entrepreneurial intention. The hypotheses stated in the present chapter are based on earlier studies and are built on the existing body of knowledge.

7.6.2.2 Path Analysis

Figure 7.7
The Relationship Between Perceived Educational, Relational, and Structural Supports, and Entrepreneurial Intention via Entrepreneurial Motivation



Source: Primary data

Table 7.22
Fit Indices for Testing the Mediating Effect of Entrepreneurial Motivation on the Factors of Perceived Environmental Support and Entrepreneurial Intentions

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	3.847	0.000	0.981	0.964	0.992	0.039
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary data

For a model to be declared valid, the chi-square to degrees of freedom ratio must be smaller than 5. In this case, the value is 3.847, which is significantly lower than the maximum suggested value. Moreover, the RMSEA score is 0.039, which is

significantly lower than the permissible threshold of 0.08. Furthermore, the GFI, AGFI, and CFI values are all greater than 0.9. A value of 1.0 indicates that the fit is satisfactory. As a result, it is acceptable to infer that the mediation model is a good fit.

Table 7.23
Path Values Associated with Direct Effect Among Perceived Environmental Support Factors, Entrepreneurial Motivation and Entrepreneurial Intentions

Construct	Path	Construct	Estimate	S. E	C. R	P-value	Result
Entrepreneurial Intention	←	**Perceived Educational Support**	0.05	0.078	1.254	0.254^{NS}	Not Significant
Entrepreneurial Intention	←	**Perceived Relational Support**	0.26	0.069	4.74	<0.001**	Significant
Entrepreneurial Intention	←	**Perceived Structural Support**	0.03	0.55	0.998	0.684 ^{NS}	Not Significant
Entrepreneurial Motivation	←	**Perceived Educational Support**	0.16	0.74	3.07	<0.001**	Significant
Entrepreneurial Motivation	←	**Perceived Relational Support**	0.48	0.68	8.94	<0.001**	Significant
Entrepreneurial Motivation	←	**Perceived Structural Support**	0.07	0.48	1.89	0.058 ^{NS}	Not Significant
Entrepreneurial Intention	←	**Entrepreneurial Motivation**	0.62	0.55	13.84	<0.001**	Significant

Source: Primary data
*** denotes significant at 1% level; NS denotes Not Significant*

Figure 7.7 and Table 7.23 above demonstrate the factors of perceived environmental support, such as perceived educational, relational, and structural supports, and their effects on entrepreneurial intentions. The beta values for each of these factors are 0.05NS, 0.26**, and 0.03NS respectively. This study examines the effect of perceived

educational, relational, and structural supports on entrepreneurial motivation. The beta values for these factors are 0.16**, 0.48**, and 0.07 NS respectively. The present study also reveals a significant direct relationship between entrepreneurial motivation and entrepreneurial intention, as evidenced by a beta coefficient of 0.62. The standardised regression coefficients for each path indicate the extent to which the dependent construct varies with a one standard deviation unit change in the independent construct.

Table 7.24
Mediating Testing in the Model (Direct and Mediation Effect Paths) using Bootstrapping Procedure
(Entrepreneurial Motivation Mediates the Relationship Between Perceived Environmental Support Factors and Entrepreneurial Intention)

Independent construct	Mediation construct	Dependent construct	Direct effect	Indirect effect (Mediation effect)	Result
Perceived Educational Support	Entrepreneurial Motivation	Entrepreneurial Intention	0.05^{NS}	0.09*	**Full Mediation**
Perceived Relational Support	Entrepreneurial Motivation	Entrepreneurial Intention	0.26**	0.30**	**Partial Mediation**
Perceived Structural Support	Entrepreneurial Motivation	Entrepreneurial Intention	0.03 ^{NS}	0.04 ^{NS}	**No Mediation**

Source: Primary data
*** denotes a 1% significant level; NS denotes Not Significant; * denotes a 5% significant level, indirect effect values are computed using 5,000 bootstrap samples.*

The study's findings indicate no statistically significant direct relationship between perceived educational support and entrepreneurial intention (.05, p = 0.254). However, it was observed that there is a mediation effect of entrepreneurial motivation in this relationship, with a mediation beta value of 0.09 at a significance level of 5%. The analysis of this path reveals a full mediation effect, as the direct effect fails to reach statistical significance in the given pathway. The findings of the second mediation test indicate a significant positive effect between perceived relational

support and entrepreneurial intention (0.26, p = <0.001**). The path coefficient value of 0.26 at a 1% level of significance suggests a direct relationship between the two variables. Moreover, it is noteworthy that there exists a mediation effect of entrepreneurial motivation in the aforementioned path, with a mediation beta value of 0.30 at a significance level of 1%. The mediating effect in this pathway is only partial, as the direct effect has statistical significance. The findings of the third mediation test indicate no statistically significant direct effect (.03, p = 0.684 NS) or indirect effect (mediation beta value 0.04NS) exists between perceived structural support and entrepreneurial intention through entrepreneurial motivation. The study employs bootstrapping techniques with 5000 bootstrap samples used with the IBM-SPSS-AMOS Graphics 21 software package to examine the mediating effect in the pathways.

7.6.2.3: Discussion of the Findings

The present study used a direct and indirect approach to assess entrepreneurial intention by considering entrepreneurial motivation as a mediating variable and selecting perceived environmental support factors consisting of perceived educational support, perceived relational support, and perceived structural support as independent variables. The first four hypotheses were developed in order to demonstrate the direct influence of entrepreneurial motivation, perceived educational support, perceived relational support, and perceived structural support on entrepreneurial intention. The following three hypotheses were tested to see if perceived educational, relational, and structural support had any effect on entrepreneurial motivation. The final three hypotheses were formulated to examine the role of entrepreneurial motivation as an intervening element in the link between perceived environmental support factors and entrepreneurial intention.

The study shows that students' entrepreneurial motivation is the best predictor of their intention to pursue entrepreneurship. Increased motivation leads to increased intention, indicating a positive association between motivation and entrepreneurial intention (Tentama, 2018). A similar result was found by Jermsittiparsert et al. (2020) in their study conducted among engineering students. Furthermore, Malebana (2014) asserted that entrepreneurial motivation is important in entrepreneurship because it

drives the inner desire to start a genuine business and connects intention with action. The standardised beta value and p-value for the direct relationship between entrepreneurial motivation and entrepreneurial intention are 0.62 and < 0.001**, respectively. This implies that with a one standard deviation unit change in the entrepreneurial motivation (independent construct), the entrepreneurial intention (dependent variable) fluctuates to the extent of a standardised beta value of 0.62.

The study's findings show that there is no statistically significant direct relationship between perceived educational support and entrepreneurial intention (0.05, p = 0.254). In a similar vein, Ambad and Damit (2016) and Oosterbeek et al. (2010) reported comparable findings. However, a mediation effect of entrepreneurial motivation was discovered in this association, with a mediation beta value of 0.09 at a significance level of 5%. The examination of this path demonstrates a full mediation effect, as the direct effect of the link between perceived educational support and entrepreneurial intention fails to attain statistical significance. The full mediation of the aforementioned pathway, whereby entrepreneurial motivation serves as a mediator between perceived educational support and entrepreneurial intention, indicates that the promotion of entrepreneurial intentions among the students of HEIs in Kerala is not directly achieved by perceived educational support. Educational support by way of providing necessary knowledge about entrepreneurship, training, and programmes, and conducting activities to develop students' creative ideas can potentially increase their motivation levels and imbue them with the confidence and courage necessary to embark on entrepreneurial ventures. Similarly, Bazan et al. (2020) asserted that the support and encouragement that educational institutions provide for learning about entrepreneurship may have an effect on students' motivation to participate in entrepreneurial initiatives. Similarly, Mahendra et al. (2017) discovered that while the relationship between entrepreneurship education support and intention was not directly affected, entrepreneurship education improved entrepreneurial motivation, which in turn increased entrepreneurial intention. Furthermore, Hassan et al. (2021) reported in a recent study that entrepreneurship education increases entrepreneurial motivation and positively correlates with entrepreneurial intention.

According to the findings, there is an upward trend between students' perceptions of relational support and their entrepreneurial intentions. Furthermore, students with strong family and friend support and with good network connections can be driven to pursue entrepreneurial projects, eventually leading to the founding of a business. The standardised beta value and p-value for the direct relationship between perceived relational support and entrepreneurial intention are 0.26 and < 0.001**, respectively. The study result proves that there exists a positive, direct, and significant relationship between perceived relational support and entrepreneurial intention among the students of HEIs in Kerala. It has been proven in many studies that support from family and friends inspires a person to choose entrepreneurship. (Ambad & Danit, 2016; Shahzad et al., 2021). Moreover, Gelaidan and Abdullateef (2017) asserted that having supportive parents is essential to following one's entrepreneurial aspirations. Similarly, Denanyoh et al. (2015) also reported that family and friends' support was found to be a crucial factor in influencing entrepreneurial intent. In addition, Zafar et al. (2012) stated that people are more likely to take the initiative to launch a business when social networks happen to exist. Furthermore, a significant and meaningful relationship exists between perceived relational support and entrepreneurial motivation, with a standardised beta value and p-value of 0.48 and <0.001*, respectively. Thus, it is evident that the support from family and friends and social networks received by students of HEIs in Kerala significantly contributes to their positive entrepreneurial motivation. A similar result was found in studies conducted by Shen et al. (2017) and Cardella et al. (2019). Moreover, Obschonka et al. (2012) found that social norms impact entrepreneurial motivations, with effective role models supporting students' ideas and motivating them to pursue entrepreneurship. Furthermore, the study shows the partial mediation pathway, which links perceived relational support and entrepreneurial intention through entrepreneurial motivation, with a mediation beta value of 0.30 at a significance level of 1%. Additionally, it is worth noting that the standardised beta value (0.48, p = <0.001**) for the link between perceived relational support and entrepreneurial motivation is much higher than the standardised beta value (0.26, <0.001**) for the link between perceived relational support and entrepreneurial intention. This implies that perceived relational support directly enhances the entrepreneurial motivation of higher education students in

Kerala. This, in turn, increases their motivation to engage in entrepreneurial ventures, and it promotes an intention among them to pursue entrepreneurship in the future.

The study highlights the fact that the students' perception of structural support does not appear to motivate them to pursue entrepreneurship, nor does it seem to cultivate an intention to pursue entrepreneurship. The standardised beta value and p-value for the direct relationship between perceived structural support and entrepreneurial intention are 0.03 and 0.684 NS, respectively. The result shows that the perception of structural support does not have a positive, direct, or significant effect on entrepreneurial intention. A similar result was found in earlier studies conducted by Ambad & Damit (2016) and Yurtkoru et al. (2014). However, this is in contrast with the findings of many studies that show a direct, positive, and significant relationship between perceived structural support and entrepreneurial intention (Denanyoh et al., 2015; Lim et al., 2010; Turker & Selcuk, 2009; Wardana et al., 2021; Ximenes & Sato, 2018). Moreover, the standardised beta value and p-value for the direct relationship between perceived structural support and entrepreneurial motivation are 0.07 and 0.058 NS, respectively. The result shows that the perception of structural support does not have a significant relationship with entrepreneurial motivation among the students of HEIs in Kerala. Similar to this result, Wu and Mao's (2020) study suggests that government support may not have a significant impact on entrepreneurial motivation, questioning its influential role in motivating individuals to start a venture. Hence, there is no mediation effect of entrepreneurial motivation in the relationship between perceived structural support and entrepreneurial intention among the students of higher education institutions in Kerala. The findings of the study indicate that the provision of structural support to students would not guarantee the accelerated cultivation of entrepreneurial intentions or the development of other forms of entrepreneurial motivation. The aforementioned observations suggest that the structural support provided to students by the Kerala government and their respective communities are not effective in cultivating a spirit of sustained entrepreneurial mindset among the students of HEIs in Kerala.

Table 7.25

Summary of Hypotheses Testing Results: Direct Effects of Perceived Environmental Support Factors and Entrepreneurial Motivation on Entrepreneurial Intention in the Mediation Model

Construct	Path	Construct	Hypotheses	Result
Entrepreneurial Intention	←	**Perceived Educational Support**	Perceived educational support has a positive, direct, and significant effect on entrepreneurial intention	Not Significant
Entrepreneurial Intention	←	**Perceived Relational Support**	Perceived relational support has a positive, direct, and significant effect on entrepreneurial intention	Significant
Entrepreneurial Intention	←	**Perceived Structural Support**	Perceived structural support has a positive, direct, and significant effect on entrepreneurial intention	Not Significant
Entrepreneurial Motivation	←	**Perceived Educational Support**	Perceived educational support has a positive, direct, and significant effect on entrepreneurial motivation	Significant
Entrepreneurial Motivation	←	**Perceived Relational Support**	Perceived relational support has a positive, direct, and significant effect on entrepreneurial motivation	Significant
Entrepreneurial Motivation	←	**Perceived Structural Support**	Perceived structural support has a positive, direct, and significant effect on entrepreneurial motivation	Not Significant
Entrepreneurial Intention	←	**Entrepreneurial Motivation**	Entrepreneurial motivation has a positive, direct, and significant effect on entrepreneurial intention	Significant

Source: Primary data

Table 7.26

Summary of Hypotheses Testing Results: Indirect Effects in the Mediation Model with Entrepreneurial Motivation as a Mediating Variable

Independent construct	Mediation construct	Dependent construct	Mediation Hypotheses	Result
Perceived Educational Support	Entrepreneurial Motivation	Entrepreneurial Intention	Entrepreneurial motivation has an intervening effect in the relationship between perceived educational support and entrepreneurial intention	**Full Mediation**
Perceived Relational Support	Entrepreneurial Motivation	Entrepreneurial Intention	Entrepreneurial motivation has an intervening effect in the relationship between perceived relational support and entrepreneurial intention	**Partial Mediation**
Perceived Structural Support	Entrepreneurial Motivation	Entrepreneurial Intention	Entrepreneurial motivation has an intervening effect in the relationship between perceived structural support and entrepreneurial intention	**No Mediation**

Source: Primary data

The current section pertains to the fourth objective of the study, which aimed to examine the intervening effect of entrepreneurial motivation on the link between perceived environmental support factors and entrepreneurial intention. Based on the results of the mediation analysis, it can be concluded that entrepreneurial motivation does not serve as a mediator between perceived structural support and entrepreneurial intentions. However, it does exhibit a partial mediation effect between perceived relational support and entrepreneurial intentions. Furthermore, a complete mediation effect of entrepreneurial motivation appears between the perceived educational support of higher education students in Kerala and their entrepreneurial intention. In addition, the study also found a partial mediation effect of entrepreneurial motivation in the link between general perceived environmental support and entrepreneurial intention.

OBJECTIVE V

To Analyse the Mediating Effect of Entrepreneurial Self-efficacy and Entrepreneurial Attitude Among the Students of HEIs in Kerala in the Relationship Between Perceived Entrepreneurial Barriers and Entrepreneurial Intention.

7.7 The Effect of Perceived Entrepreneurial Barriers on Entrepreneurial Intentions – The Parallel Mediating Role of Entrepreneurial Self-Efficacy and Entrepreneurial Attitude

This chapter analyses how perceived entrepreneurial barriers affect entrepreneurial intentions and how entrepreneurial self-efficacy and entrepreneurial attitude of the students mediate this effect using parallel mediation analysis. The mediation model was constructed using IBM SPSS AMOS Graphics 21 software, and the bootstrapping method was used to evaluate the model's mediation. The present study identifies the independent variable as perceived entrepreneurial barriers, while the dependent variable is entrepreneurial intention. Additionally, the study identifies the existence of mediating variables, namely entrepreneurial self-efficacy and entrepreneurial attitude of the students.

7.7.1 Hypotheses for the Mediation Model

SI. No.	Hypotheses for the Mediation Model
MEH.1	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial intentions.
MEH.2	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial self-efficacy
MEH.3	Entrepreneurial self-efficacy has a positive, direct, and significant effect on entrepreneurial intentions.
MEH.4	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial attitude
MEH.5	Entrepreneurial attitude has a positive, direct, and significant effect on entrepreneurial intentions.
MEH.6	Entrepreneurial self-efficacy has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.
MEH.7	Entrepreneurial attitude has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.

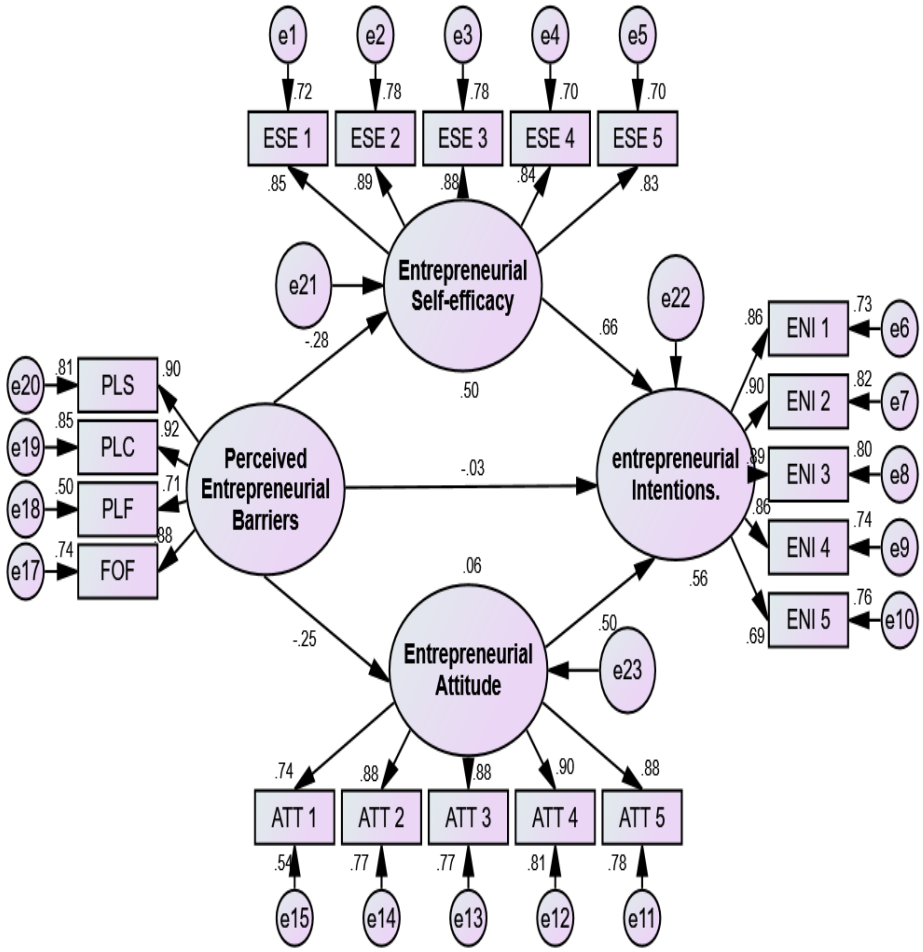
The formulation of the hypotheses stated above was previously covered in Chapter 2 of the present study. A thorough study of relevant literature and theoretical

frameworks was undertaken in Chapter Two in order to identify the key factors and their possible linkages with entrepreneurial intention. The hypotheses stated in the present chapter are based on earlier studies and build on the existing body of knowledge.

7.7.2 Path Analysis

Figure 7.8

Parallel Mediation Model Which Measures the Indirect Relationship between Perceived Entrepreneurial Barriers and Entrepreneurial Intentions via Entrepreneurial Self-efficacy and Entrepreneurial Attitude



Source: Primary data

Table 7.27
Fit Indices for Testing the Parallel Mediating Effect of Entrepreneurial Attitude and Entrepreneurial Self-efficacy in the Relationship between Perceived Entrepreneurial Barriers and Entrepreneurial Intentions

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	3.08	0.000	0.987	0.968	0.991	0.042
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al., (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary data

In order to establish the accuracy of a model, it is necessary for the ratio of chi-square to degrees of freedom to be less than 5. The present instance denotes a value of 3.08, which exhibits a marked decrease in comparison to the uppermost recommended threshold. Moreover, the root mean square error of approximation (RMSEA) obtained a score of 0.042, indicating statistical significance as it falls below the acceptable threshold of 0.08. Additionally, the GFI, AGFI, and CFI indices exhibit values exceeding 0.9. A value of 1.0 denotes that the goodness of fit is acceptable. Therefore, it can be asserted that the model is a good fit.

Table 7.28
Path Values of Direct Effects Between Perceived Entrepreneurial Barriers and Entrepreneurial Intentions via Entrepreneurial Self-efficacy and Entrepreneurial Attitude in the Mediation Model

Construct	Path	Construct	Estimate	C. R	P-value	Result
Entrepreneurial Intention	←	**Perceived Entrepreneurial Barriers**	-0.03	-1.315	0.189_{NS}	Not Significant
Entrepreneurial Self-efficacy	←	**Perceived Entrepreneurial Barriers**	-0.28	-8.488	<0.001**	Significant
Entrepreneurial Intention	←	**Entrepreneurial Self-efficacy**	0.66	25.96	<0.001**	Significant
Entrepreneurial Attitude	←	**Perceived Entrepreneurial Barriers**	-0.25	-7.439	<0.001**	Significant
Entrepreneurial Intention	←	**Entrepreneurial Attitude**	0.50	21.70	<0.001**	Significant

Source: Primary data
** denotes significant at 1% level

The figure 7.8 and Table 7.28 presented above illustrate the negative relationship between perceived entrepreneurial barriers and entrepreneurial intentions, with a beta value of -0.03 and a p-value of 0.189, which was not statistically significant. The study found significant relationships between perceived entrepreneurial barriers and entrepreneurial self-efficacy, as well as between entrepreneurial self-efficacy and entrepreneurial intentions. Specifically, a negative relationship was observed between perceived entrepreneurial barriers and entrepreneurial self-efficacy, with a beta value of -0.28 and a p-value of 0.001. The -0.28 beta value indicates the degree to which entrepreneurial self-efficacy varies with a one standard deviation change in perceived entrepreneurial barriers. On the other hand, a positive relationship was found between entrepreneurial self-efficacy and entrepreneurial intentions, with a beta value of 0.66 and a p-value of 0.001. This implies that entrepreneurial intention varies to the extent of 0.66 with a one standard deviation change in entrepreneurial self-efficacy. A negative relationship was also observed between perceived entrepreneurial barriers and entrepreneurial attitude, with a beta value of -0.25 and a p-value of 0.001. The -0.25 beta value indicates the degree to which the entrepreneurial attitude varies with a one standard deviation change in perceived entrepreneurial barriers. Furthermore, the findings of the study indicate a statistically significant and positive correlation between students' entrepreneurial attitude and their entrepreneurial intentions, as evidenced by a beta value of 0.50 and a p-value of 0.001. This implies that entrepreneurial intention varies to the extent of 0.50 with a one standard deviation change in entrepreneurial attitude. The results indicate that all of the relationships are statistically significant, with the exception of the direct relationship between perceived entrepreneurial barriers and entrepreneurial intentions (β -0.03, $p = 0.189$).

Based on the findings it can be inferred that perceived entrepreneurial barriers may influence other factors, such as psychological characteristics and personality traits, they do not directly impact students' intentions to pursue entrepreneurship. It is essential to further explore the underlying mechanisms that link perceived barriers to entrepreneurial intentions through mediating factors to gain a comprehensive understanding the underlying mechanisms involved in this relationship.

Table 7.29
Parallel Mediating Testing in the Model (Direct and Indirect Effect Paths) using Bootstrapping Procedure
(Entrepreneurial Attitude and Self-efficacy Mediate the Relationship Between Perceived Entrepreneurial Barrier and Entrepreneurial Intention)

Independent construct	Mediation construct	Dependent construct	Direct effect	Indirect effect (Mediation effect)	Result
Entrepreneurial Intentions	Entrepreneurial Self-efficacy	Perceived Entrepreneurial Barriers	-0.03^{NS}	-0.18**	**Supported and Full mediation effect.**
Entrepreneurial Intentions	Entrepreneurial Attitude	Perceived Entrepreneurial Barriers		-0.13**	**Supported and Full mediation effect.**

Source: Primary data
*** indicates 1% significance; indirect effect values are calculated using 5,000 bootstrap samples.*

Table 7.29 presented above illustrates the relationship between perceived barriers to entrepreneurship and the desire to become entrepreneurs among students of higher education institutions in Kerala, revealing a positive and direct effect. The tabular data presented in this study demonstrates how perceived barriers to entrepreneurship negatively influence the entrepreneurial intentions of higher education students in Kerala. The students' levels of entrepreneurial self-efficacy and entrepreneurial attitude serve as a mediating factor in this relationship. The statistical significance of both effects has been established in the study. The results suggest that the mediation effect in this specific model is fully present, as the direct effect fails to show statistical significance within the model. The study employed bootstrapping techniques, specifically 5000 bootstrap samples, in conjunction with the IBM-SPSS-AMOS Graphics-21 software package to assess the mediating effects of the pathway.

The results of the study indicate that there is no direct relationship between students' perceived barriers to entrepreneurship and their intentions to pursue entrepreneurial endeavours. However, these barriers have the potential to impede the efficacy and

favourable attitude of students towards entrepreneurship, ultimately hindering their inclination to pursue entrepreneurial endeavours after their higher education.

7.7.3 Discussion of the Findings

The present study assessed entrepreneurial intention using a direct and indirect approach, with entrepreneurial attitude and entrepreneurial self-efficacy serving as mediating variables and perceived entrepreneurial barriers serving as independent variables. The first three hypotheses were formulated to show the direct influence of entrepreneurial attitude, self-efficacy, and perceived barriers on entrepreneurial intention. The following two hypotheses were examined to determine whether perceived entrepreneurial barriers influenced entrepreneurial attitudes and self-efficacy. The final two hypotheses were developed to investigate the function of entrepreneurial attitude and self-efficacy as intervening factors in the relationship between perceived entrepreneurial barriers and entrepreneurial intention.

The study's findings underline the fact that the perceived entrepreneurial barrier had no direct effect on entrepreneurial intention. For the direct link between perceived entrepreneurial barriers and entrepreneurial intention, the standardised beta value and p-value are -0.03 and 0.189NS, respectively. This shows that perceived barriers to entrepreneurship have no direct influence on entrepreneurial intention among the students of HEIs in Kerala. This finding contradicts prior studies that found a direct negative association between perceived barriers and entrepreneurial intention (Rasool et al., 2022; Kong et al., 2020; Sandhu et al., 2011; Schlaegel et al., 2015; Yao et al., 2016).

The standardised beta value and p-value for the direct relation between perceived entrepreneurial barriers and entrepreneurial attitude are -.25 and 0.001, respectively. The -0.25 beta value indicates the degree to which the entrepreneurial attitude varies with a one standard deviation change in perceived entrepreneurial barriers. This highlights the fact that perceived entrepreneurial barriers negatively influence the entrepreneurial attitude of higher education students in Kerala. Entrepreneurial attitudes can be negatively impacted by perceived barriers such as a lack of resources and information, a lack of support, a fear of failure, and so on, resulting in a lower

desire to pursue entrepreneurship as a profession. If an individual perceives high entrepreneurial barriers, it reduces their attitude towards business and ultimately affects their entrepreneurial intention. Moreover, Nabi and Liñán (2013) asserted that entrepreneurial attitudes might be severely impacted by perceiving risk as a barrier. Several prior studies have found that perceived barriers have a detrimental impact on an individual's attitude towards business and aspirations (Chinta and Collier, 2022; Kebaili et al., 2017; Nabi & Liñán, 2013). Regardless of how appealing the benefits of becoming an entrepreneur are, positive attitudes towards it may change and turn negative when people confront several obstacles that prohibit them from achieving these benefits (Malebana, 2015).

The standardised beta value and p-value for the direct relation between perceived entrepreneurial barriers and entrepreneurial self-efficacy are -.28 and 0.001, respectively. The -0.28 beta value indicates the degree to which entrepreneurial self-efficacy varies with a one standard deviation change in perceived entrepreneurial barriers. This highlights the fact that perceived entrepreneurial barriers negatively influence the entrepreneurial self-efficacy of higher education students in Kerala. Several studies have demonstrated that perceived barriers have a detrimental impact on self-efficacy. Sheu et al. (2010) established the negative influence of perceived barriers on self-efficacy using meta-analytic path analyses. Similarly, Lent et al. (2018) also found a negative link between perceived barriers and self-efficacy in a meta-analytic path analysis. In addition, Mejia-Smith and Gushue (2017) discovered a strong association between self-efficacy and perceived obstacles in their study of Latina/o college students' effect of self-efficacy on perceived barriers, noting that greater perceived barriers will reduce self-efficacy. Furthermore, Dölarslan et al. (2020) asserted that self-efficacy can contribute to entrepreneurial intention, but perceived barriers and lack of support may distort the assessment of the link between self-efficacy and entrepreneurial intention.

Moreover, there exist negative and significant mediation effect of entrepreneurial attitude and self-efficacy in the relationship between perceived entrepreneurial barriers and entrepreneurial intention, with a mediation beta value of -0.18**. This implies that even though perceived entrepreneurial barriers do not have a direct

negative influence on students' entrepreneurial intentions, perceived barriers to entrepreneurship negatively influence entrepreneurial attitude and self-efficacy. This, in turn, will reflect on the desire of students to pursue entrepreneurship as a career choice. Lack of funds, fear of failure, lack of competencies, and lack of support can hinder a person's perceived attractiveness, resulting in a distortion in their intention to pursue entrepreneurship. Further, Shinnar et al. (2012) discovered that fear of failure diminishes an individual's attitude towards entrepreneurship, which in turn influences their entrepreneurial intention. Moreover, Dölarslan et al. (2020) reported that high perceived barriers may reduce confidence in performing entrepreneurial activities, leading to lower entrepreneurial intention. In a similar vein, Lopez and Ann-Yi (2006) also discovered that the larger the perceived barrier, the lower the self-efficacy, which has a direct impact on career outcome expectations. In addition, Sheu et al. (2010) conducted meta-analytic path analyses for Social cognitive career Theory and proved that self-efficacy directly influences career outcome expectations and also revealed that perceived barriers negatively influence self-efficacy. Thus, the study emphasises that, while perceived barriers do not directly affect entrepreneurial intention, they do negatively influence entrepreneurial attitude and self-efficacy, which may result in a decline in entrepreneurial intention.

Table 7.30

Summary of Hypotheses Testing Results: Direct Effects of Perceived Entrepreneurial Barriers, Entrepreneurial Attitude, and Entrepreneurial Self-efficacy on Entrepreneurial Intention in the Mediation Model

Construct	Path	Construct	Hypotheses	Result
Entrepreneurial Intentions	←	**Perceived Entrepreneurial Barriers**	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial intentions.	**Not Supported**
Entrepreneurial Self-efficacy	←	**Perceived Entrepreneurial Barriers**	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial self-efficacy	**Supported**
Entrepreneurial Intentions	←	**Entrepreneurial Self-efficacy**	Entrepreneurial self-efficacy has a positive, direct, and significant effect on entrepreneurial intentions.	**Supported**
Entrepreneurial Attitude	←	**Perceived Entrepreneurial Barriers**	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial attitude	**Supported**
Entrepreneurial Intentions	←	**Entrepreneurial Attitude**	Entrepreneurial attitude has a positive, direct, and significant effect on entrepreneurial intentions.	**Supported**

Source: Primary data

Table 7.31

Summary of Hypotheses Testing Results: Indirect Effects in the Mediation Model with Entrepreneurial Attitude and Entrepreneurial Self-efficacy as Mediating Variables

Independent construct	Mediation construct	Dependent construct	Mediation Hypotheses	Result
Perceived Entrepreneurial Barriers	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial attitude has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions	**Supported and Full mediation effect.**
Perceived Entrepreneurial Barriers	Entrepreneurial Self-efficacy	Entrepreneurial Intention	Entrepreneurial self-efficacy has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.	**Supported and Full mediation effect.**

Source: Primary data

This section addresses the fifth objective, which pertained to the mediating role of entrepreneurial self-efficacy and entrepreneurial attitude of the students in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions using parallel mediation analysis. The study found no relationship between students' perceptions of barriers to entrepreneurship and their plans to start businesses after their studies. However, these obstacles may reduce students' self-efficacy, confidence, and positive attitude towards entrepreneurship, making it less likely that they will engage in such activities after their graduation. Bootstrap procedures with a sample size of 5000 were used to examine the significance of the mediation effect in the model. Moreover, indicators of model fitness indicate a satisfactory fit.

OBJECTIVE VI

To Extract the Moderating Effect of Institutional Innovation and Entrepreneurship Support on the Relationship Between the Psychological Characteristics of Students in HEIs in Kerala and Their Entrepreneurial Intentions

7.8 Moderating Effect of Institutional Innovation and Entrepreneurship Support on the Relationship Between the Psychological Characteristics of Students in Higher Education Institutions in Kerala and their Entrepreneurial Intentions.

The sixth objective of the study is related to the moderation analysis described in this section. The objective is to investigate the role of institutional innovation and entrepreneurship support in moderating the link between psychological characteristics and entrepreneurial intentions. Under psychological characteristics, attitudes towards entrepreneurship, entrepreneurial self-efficacy, and entrepreneurial motivation are evaluated. The moderating effect was investigated by employing Multi-Group Analysis (MGA) using IBM SPSS AMOS Graphics 21 software. The chi-square difference test is the statistical tool used to determine the importance of moderating effects within the model. The critical ratio difference test is the statistical technique applied to determine the statistical significance of the moderating effect at the path level.

7.8.1 Moderation Analysis: An Overview

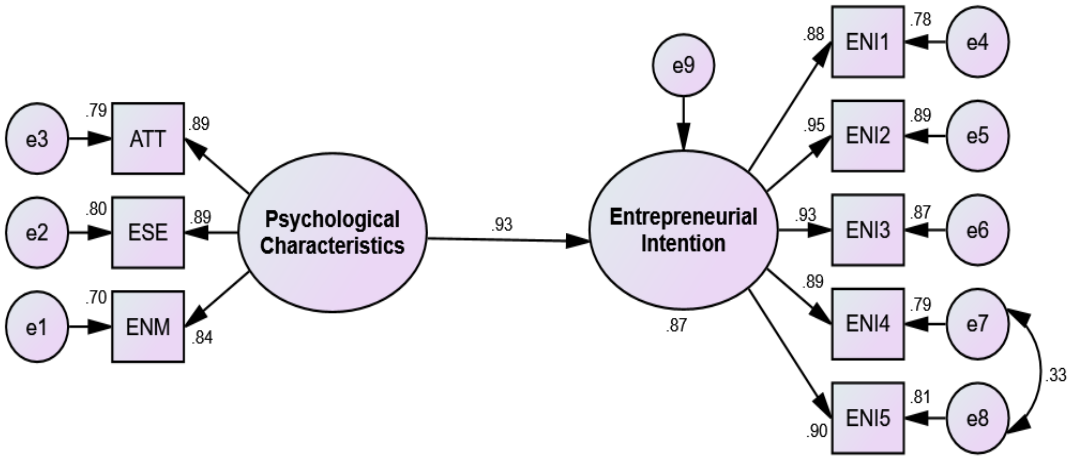
A moderating variable is a factor that modifies or controls the influence of an independent variable on a dependent variable. Social science scholars coined the word "moderator" to describe a variable that breaks the link between an independent variable and its related dependent variable. The moderator variable in the X-Y relationship can be denoted by the letter M. The moderating function of M involves altering the effect of X on Y (Zainudin, 2012). Considering moderating variables in the study allows for a more comprehensive examination of the factors influencing a particular outcome, leading to a deeper understanding of the complexities of human behavior and decision-making.

7.8.2 Hypotheses formulation

SI. NO.	Hypotheses
MOD.H1	Psychological characteristics of the students in higher education institutions in Kerala have a direct and positive effect on their entrepreneurial intentions
MOD.H2	Psychological characteristics of the students have a positive effect on their entrepreneurial intentions and the Institutional innovation and entrepreneurship support moderate this relationship

7.8.3 Path Analysis

Figure 7.9
Testing of the Direct Effect of Psychological Characteristics on the Entrepreneurial Intentions of the Students who Receive Institutional Support for Innovation and Entrepreneurship



Source: Primary data

Table 7.32
Relationship Between Direct Effect of Psychological Characteristics on Entrepreneurial Intentions of the Students Who Receive Institutional Support for Innovation and Entrepreneurship - Summary of Estimates

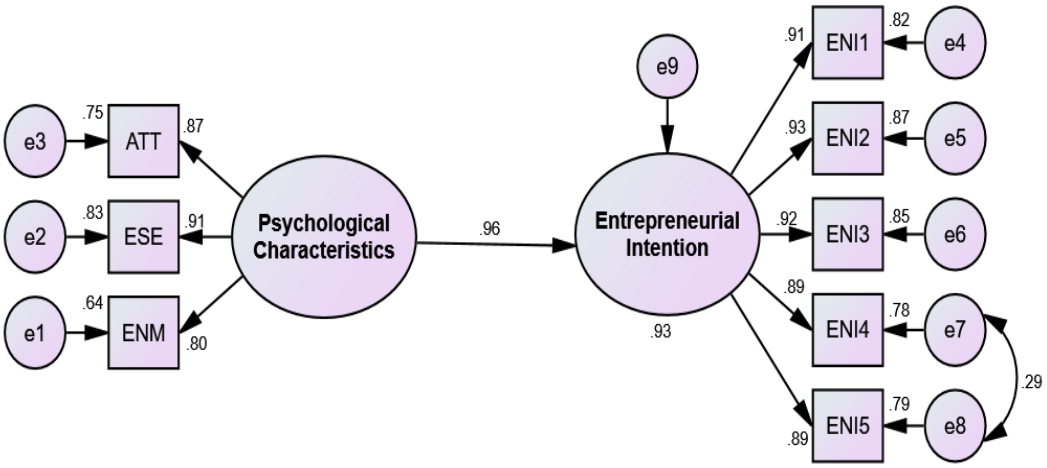
Variables	Path	Variables	Beta Estimate	Critical ratio	P value	Result
Entrepreneurial Intentions	←	Psychological characteristics of the students who receive institutional support for innovation and entrepreneurship	0.93	21.68	<0.001**	***Supported***

Source: Primary data
*** indicates significant at 1% level*

Figure 7.9 and Table 7.32 presented above indicate a noteworthy beneficial relationship between the psychological characteristics of students who get institutional support for innovation and entrepreneurship and their entrepreneurial intentions (beta value of 0.93, p<0.001**). This implies that a one-unit increase in the standard deviation of psychological characteristics among students receiving institutional support for innovation and entrepreneurship is associated with a 0.93 increase in their entrepreneurial intentions.

Figure 7.10

Testing of the Direct Effect of Psychological Characteristics on Entrepreneurial Intentions of the Students Who do not Receive Institutional Support for Innovation and Entrepreneurship



Source: Primary data

Table 7.33

Relationship Between the Direct Effect of Psychological Characteristics on Entrepreneurial Intention of the Students Who do not Receive Institutional Support for Innovation and Entrepreneurship - Summary of Estimates

Variables	Path	Variables	Beta Estimate	Critical ratio	P value	Result
Entrepreneurial intentions	←	Psychological characteristics of the students who do not receive institutional support for innovation and entrepreneurship.	0.96	23.78	<0.001**	***Supported***

*Source: Primary data ** indicates significant at 1% level*

Figures 7.10 and 7.33 above illustrate that there is a significant causal relationship between the psychological characteristics of students who don't get institutional entrepreneurship and innovation support and their entrepreneurial intention (beta value is 0.96, p.0.001**). This effect is depicted by the fact that there is a significant direct effect. It implies that if there is an increase of one unit in the standard deviation of the psychological characteristics of students who are not receiving institutional support for innovation and entrepreneurship, there will be a 0.96 increase in those students' intent to engage in entrepreneurial activity.

Table 7.34

Fit Indices for Testing the Multi-Group Analysis (MGA) Moderation Model

ATTRIBUTES	CMIN/DF	P-VALUE	GFI	AGFI	CFI	RMSEA
Study model	1.847	0.248	0.999	0.994	0.999	0.012
Recommended value	Acceptable fit [1-5]	Greater than 0.05	Greater than 0.9	Greater than 0.9	Greater than 0.9	Less than 0.08
Literature support	Hair et al. (1998)	Barrett (2007)	Hair et al. (2006)	Hair et al. (2006)	Hu and Bentler (1999)	Hair et al. (2006)

Source: Primary data

The ratio of degrees of freedom to Chi-Square is 1.847, which is well within the range for the highest value provided. The RMSEA score is 0.012, which is significantly lower than the minimal value of 0.08 that is necessary in this scenario. In addition, the values of the GFI, AGFI, and CFI are all greater than 0.9, whereas a value of 1.0 indicates that there is an exact fit. As a result, it is possible to assert that the moderation model is a good fit for the population.

7.8.4 Explanations of R^2 values

The institutional innovation and entrepreneurship support that college students receive results in an R2 value of 0.87, which is the coefficient of determination for entrepreneurial intent among college students. This value suggests that 87 percent of the variation in the entrepreneurial intention of college students who get support from

their institutions in the areas of innovation and entrepreneurship can be explained by the psychological characteristics of these students. This number leads to the conclusion that further independent factors are required to predict an even 13% variation in the entrepreneurial intentions of college students who are receiving assistance for innovation and entrepreneurship from their institutions.

The value of R2 is 0.93 when discussing the aspirations of college students to start their own businesses, provided that they do not receive support from their educational institutions in the areas of innovation and entrepreneurship. It can be deduced from this that the psychological characteristics of college students who are not receiving institutional support for innovation and entrepreneurship are responsible for explaining 93% of the variation in entrepreneurial intention. This number demonstrates the fact that more independent factors are required in order to make an accurate prediction of the 7% variation in the entrepreneurial intentions of college students who are not receiving support for their innovation and entrepreneurship from their institutions.

7.8.5 Chi-square Difference Test for Examining the Significance of the Moderating Effects at the Model Level

The chi-square difference test was utilised for the purpose of determining whether or not the moderating effects were significant at the model level. The technique is outlined in the following table.

Table 7.35
Chi-square Difference Test to Examine Whether the Groups are Different at the Model Level or Not

Models	Chi-square	df	P-value	Invariant
Unconstrained model	141.357	34	0.135^{NS}	**YES** ***(Groups are not different at the model level)***
Fully constrained model	152.451	41		
Number of groups		2		
Difference	**11.093**	**7**		

Source: Primary data

The results of the Chi-square difference test indicate that the unconstrained model and the fully constrained model are not significantly different from one another (the P value is greater than 0.05). It demonstrates that there are no differences between the groups at the model level. The moderating effects in the model are not supported by this evidence. In this study, in addition to examining the chi-square difference test, the critical ratio difference test was also analysed in the model for the purpose of determining whether or not there is moderating influence on the path values.

7.8.6 Critical Ratios for Differences Tests for Measuring the Significance of the Moderating Effect in Path Values

It is essential to investigate the significance of the moderating effects that exist between the psychological characteristics of students who are receiving and not receiving institutional innovation and entrepreneurship support and their levels of entrepreneurial intentions. Tests using critical ratios for differences were carried out so that they could be evaluated. The following null hypothesis is constructed in order to evaluate the moderation effects of the route values between the psychological characteristics of students who are receiving and not receiving institutional support for innovation and entrepreneurship and their entrepreneurial intentions.

CR.H1: There is no significant difference between the estimates of the effects of psychological characteristics of the students who are receiving and not receiving institutional innovation and entrepreneurship support and their entrepreneurial intentions.

Table 7.36

Critical Ratios for Differences Tests for Measuring the Significance of Moderating Effect in Path Values of the Model for Students who are Receiving and not Receiving Institutional Innovation and Entrepreneurship Support

Path relationships	Critical Ratios for Differences between Parameters
Psychological characteristics of the students → entrepreneurial intentions	1.458

Source: Primary data

(Decision criteria: - If the critical ratios for difference are between -1.96 to +1.96 accept the null hypothesis. Else, reject the null hypothesis)

The null hypothesis can be accepted because the values of the critical ratios for differences do fall within the range of -1.96 to +1.96, which is recommended as the threshold value. It means that there is not a significant difference in the moderation effect between students who are getting institutional innovation and entrepreneurship support and students who are not getting this support in terms of the relationship that psychological characteristics of students have on their intentions to be entrepreneurs. It suggests that the students who are receiving and those who are not receiving institutional innovation and entrepreneurship support possess the same kind of effect on their psychological characteristics and their aspirations to pursue entrepreneurship.

7.8.7 Discussion of the Findings

The present study emphasises the significance of psychological characteristics for developing entrepreneurial intention among the students of HEIs in Kerala. Regardless of the availability of institutional support for entrepreneurship and innovation, students' intentions to establish their own enterprises were strongly predicted by their attitude towards entrepreneurship, entrepreneurial self-efficacy, and entrepreneurial motivation. The study shows that there is a positive effect of psychological characteristics on the entrepreneurial intentions of the students who are receiving and not receiving institutional innovation and entrepreneurship support. There is no significant difference between the magnitude of the beta value and the fit indices of the models. Thus, it can be asserted that students who receive institutional support for innovation and entrepreneurship and those who do not receive such support exhibit similar effects in this relationship. Therefore, it can be clearly identified that both kinds of students, those who do receive and those who do not receive institutional innovation and entrepreneurship support, have intentions to start businesses after their studies, and there is no disparity between these two groups in terms of their psychological characteristics and intention to start entrepreneurship.

Previous studies have shown that institutional support for entrepreneurship and innovation has a major influence on people's entrepreneurial decisions and motivation to establish businesses (Coduras et al., 2008; Schwarz et al., 2009; Shahzad et al., 2021). According to Lüthje and Franke (2003), university support can modify the relationship between entrepreneurial self-efficacy and intention. Furthermore,

according to Saeed et al. (2014a), perceived support from educational institutions is critical in shaping college students' entrepreneurial intentions. Additionally, Towers et al. (2020) claimed that collaboration between educational institutions and industry might significantly benefit students' entrepreneurial initiatives. As a result, institutional support is critical for the growth and development of new start-ups.

The findings of the present study suggest that while institutional support for entrepreneurship and innovation is valuable in promoting entrepreneurial intentions among college students, it does not significantly alter the impact of psychological characteristics. The observation is inferred that the provision of support by higher education institutions in Kerala to promote innovation and entrepreneurship among the students is not yielding the desired outcomes. This implies that students may have an inherent or innate aptitude for innovation and entrepreneurship, regardless of the lack of formal support structures from their academic institutions. As a result, higher education institutions in Kerala may need to take a more holistic approach that acknowledges and encourages the inherent entrepreneurial potential of their students. Thus, educational institutions need to focus on fostering and enhancing the psychological characteristics of students, such as their attitude towards entrepreneurship, entrepreneurial self-efficacy, and entrepreneurial motivation, as these play a fundamental role in driving entrepreneurial intentions.

Table No. 7.37
Result Summary of the Direct and Moderating Effect Hypothesis Testing Using Institutional Support for Innovation and Entrepreneurship as Moderating Variables

SI. NO.	Hypotheses	Result
MOD.H1	The psychological characteristics of the students in higher education institutions in Kerala have a direct and positive effect on their entrepreneurial intentions	***Supported***
MOD.H2	Psychological characteristics of the students have a positive effect on their entrepreneurial intentions, and institutional innovation and entrepreneurship support moderate this relationship	***Not Supported***

Source: Primary data

The current part of the thesis outlines the development and testing of two hypotheses as well as the subsequent construction of a moderation model. The hypotheses were evaluated through Multi-Group moderation analysis, and its findings were utilised in

the development of the model. The hypothesis regarding the direct effect has received support, while the hypothesis regarding the moderating effect has not been supported. The results of the moderation analysis indicate that there is no statistically significant moderation effect between students who receive institutional innovation and entrepreneurship support and those who do not with respect to the relationship between the psychological characteristics of the students and their entrepreneurial intentions. The fit indices of the categorical multi-group moderation analysis models indicate an excellent fit.

CHAPTER 8

SUMMARY OF FINDINGS AND CONCLUSION

Contents

8.1 Introduction

The present study is intended to conduct a comprehensive examination of the relationship between entrepreneurial intention and its antecedents, specifically personality traits, along with the contextual factors of support and barriers. In addition to examining the direct relationships between entrepreneurial intention and its antecedents, the study also addresses the mediating effect of psychological characteristics consisting of entrepreneurial attitude, self-efficacy, and motivation. Additionally, the study tries to explore the moderating effect of institutional support for entrepreneurship and innovation on the relationship between psychological characteristics and entrepreneurial intention. The study investigates how socio-demographic, economic, and background elements affect these variables. The current chapter presents the major findings and conclusions derived from the analysis of all the above-mentioned parameters, providing light on the dynamics and implications of the relationships under investigation.

8.2 Summary of Findings

Objective 1 To examine the level and extent of entrepreneurial intention and its antecedents among the students of HEIs in Kerala.

1. Findings Based on the Extent and Level of Entrepreneurial Intention and its Antecedents among the Students of HEIs in Kerala

- The entrepreneurial intention among the students of HEIs in Kerala is at an above average level. The mean score of 3.44 on a scale of 1 to 5 indicates that the entrepreneurial intention is above average, which means that students have a relatively strong intention to start a business. A significant proportion of higher education students in Kerala prefer to be entrepreneurs rather than employees and are willing to put in the effort to start and run their businesses

in the future. This reflects a promising entrepreneurial mindset among the students, which is essential for fostering innovation and economic growth. A higher level of entrepreneurial intention suggests that the students are more likely to consider entrepreneurship as a viable career path and are open to taking calculated risks to achieve their entrepreneurial goals. This bodes well for the future of entrepreneurship in the region and may contribute to the overall economic development and job creation. However, it is essential to note that while the overall entrepreneurial intention is above average, there may still be variations among individual students and across different groups or categories.

- The students of HEIs in Kerala exhibit an above average level of three essential psychological characteristics associated with entrepreneurship. These include entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. Self-efficacy is slightly lower than the other two psychological characteristics, indicating that there may be space for improvement. Entrepreneurial attitude (3.84) is identified as the most prominent factor determining entrepreneurial intention, followed by motivation (3.78) and self-efficacy (3.33). The results emphasize the importance of cultivating a positive entrepreneurial mindset, fostering motivation, and building self-confidence among students in higher education institutions. Students with these attributes are more likely to embrace entrepreneurship as a viable career option and are better prepared to overcome challenges and seize opportunities in the entrepreneurial landscape. The findings underscore the significance of not only imparting entrepreneurial knowledge and skills but also addressing the psychological aspects, such as attitude, motivation, and self-efficacy, to foster a conducive environment for nurturing future entrepreneurs.

- The students of HEIs in Kerala were found to have above-average (>3) personality traits associated with entrepreneurial intention. The highest mean score for the need for achievement (4.05) indicates that they are motivated to succeed and excel. The mean score for innovativeness (3.83) was also high, indicating that the students are willing to explore and experiment with new

and innovative approaches to problem-solving and task execution. Their openness to novelty and creativity bodes well for their potential as future entrepreneurs, as entrepreneurship often involves thinking outside the box and introducing novel solutions to market needs. Risk-taking Propensity also had a mean score of 3.63 which indicates that the students are moderately inclined to take risks in their decision-making processes. While not exceptionally high, this level of risk-taking propensity is important for entrepreneurial ventures, as entrepreneurship inherently involves uncertainty and taking calculated risks. These findings underscore the importance of personality traits in shaping the entrepreneurial mindset and potential. Encouraging and nurturing these personality traits may play a vital role in fostering entrepreneurship among students in higher education landscape.

- The students of HEIs in Kerala perceive above-average levels of education support, relational support, and structural support with regard to entrepreneurial intention. Relational support was perceived as the most prominent form of support with regard to entrepreneurship, with an average score of 3.65 out of 5. This indicates that students of HEIs in Kerala receives encouragement, advice, and assistance from their family, friends, and mentors, which positively influences their entrepreneurial intentions. Education support was the second most prominent component, with an average score of 3.52. This implies that students believed they had access to resources such as entrepreneurial courses, workshops, and training programs that equipped them with the necessary knowledge and skills to pursue entrepreneurial ventures. Structural support, which includes factors like availability of funding, access to resources, and a supportive business environment, was perceived as the third most significant form of support with an average score of 3.30. This indicates that students recognized the importance of a conducive ecosystem that facilitates entrepreneurial activities. The magnitude of educational, relational and structural support indicates that there is some support for entrepreneurship among the students of HEIs in Kerala; however, the level of support provided may be improved so that a growing number of students from HEIs in Kerala become attracted towards startups and entrepreneurship.

Table 8.1

Summary of One Sample t-test to Measure the Extent of Entrepreneurial Intention and Its Antecedents Among the Students of Higher Education Institutions in Kerala

Constructs			Mean	Standard Deviation	P Value	Result	Ranking Based on Mean
Dependent Variable	**Entrepreneurial Intention**		3.44	1.04	<0.001** Rejected	Above Average Level	
Antecedents of Entrepreneurial Intention	**Psychological Characteristics**	Entrepreneurial Attitude	3.84	0.83	<0.001** Rejected	Above Average Level	I
		Entrepreneurial Self-efficacy	3.33	0.88	<0.001** Rejected	Above Average Level	III
		Entrepreneurial Motivation	3.78	0.79	<0.001** Rejected	Above Average Level	II
	Entrepreneurial Personality Traits	Risk-Taking Propensity	3.63	0.78	<0.001** Rejected	Above Average Level	III
		Innovativeness	3.83	0.74	<0.001** Rejected	Above Average Level	II
		Need for Achievement	4.05	0.69	<0.001** Rejected	Above Average Level	I
	Perceived Environmental Support	Perceived Educational Support	3.52	0.90	<0.001** Rejected	Above Average Level	II
		Perceived Relational Support	3.65	0.89	<0.001** Rejected	Above Average Level	I
		Perceived Structural Support	3.30	0.82	<0.001** Rejected	Above Average Level	III

Source: Primary data

2. Findings Based on Entrepreneurial Intention Among the Students of HEIs in Kerala Across Their Socio-demographic, Economic, and Background Factors

- A gender discrepancy in entrepreneurial intention was found among the students of HEIs in Kerala. When compared on the basis of the mean score, male (3.65) students apparently have stronger intentions to start a business than female (3.24) students. This finding is in line with many other studies that found male students to have greater entrepreneurial intention than female students (Khanal & Prajapati, 2023; Roy and Das, 2020; Tian et al., 2022;

Nguyen, 2018; Bagheri & Lope Pihie, 2014; Zhao et al., 2005). The result also reflects the fact that female students in HEIs in Kerala are less likely than male students to start their own businesses. Wang and Wong (2004) conducted a study that found a similar result: female students had less specific entrepreneurial intentions than male students.

- There exist disparity in entrepreneurial intention among students of HEI's in Kerala based on their stream of study. Commerce and management students have the highest mean score for entrepreneurial intention, while science students have the lowest. This also confirm to some of the earlier studies in other contexts. According to study conducted by Manuere et al. (2013), among university students from Chinhoyi, Zimbabwe found that, students with a background in commerce and management have more entrepreneurial expertise than students from other academic subjects. According to the Tukey HSD post hoc test results, arts students have more entrepreneurial intentions than science students, while commerce and management students have more entrepreneurial intentions than others except engineering. Both stream of students majoring in commerce and in engineering have similar aspirations to start businesses.

- The students of HEIs in Kerala with varied monthly family incomes are showing similar characteristics of entrepreneurial intentions. Previous studies done by Wang and Wong (2004) and Din et al. (2020) found that individuals' drive for entrepreneurship is stronger than their family's financial backing. Entrepreneurship motivation drives the desire to do business, and family income is not an influencing factor leading to entrepreneurial intention.

- Students from family business backgrounds reported to have more entrepreneurial intentions than those without a family business background. Some of the earlier empirical studies also exhibited the same similar result (Georgescu & Herman, 2020; Wang & Wong, 2004; Abun et al., 2022). Family business exposure was found to be crucial in promoting the entrepreneurial intention of students (Nandanamoorthy, 2013), as it enables them to observe and experience an enterprise setting, influencing their motivation to pursue entrepreneurship (Wang & Wong, 2004). This highlights the importance of

familial influence in shaping entrepreneurial aspirations and suggests that fostering an entrepreneurial environment within families can potentially enhance the likelihood of entrepreneurial intentions among individuals.

- The study found that students who took entrepreneurial courses had more entrepreneurial intentions than those who did not. This is consistent with previous studies that have found a favourable association between entrepreneurship education and entrepreneurial intention (Zhang et al., 2022; Ndofirepi, 2020; Abun et al., 2022). The findings imply that entrepreneurial courses can be a valuable addition to undergraduate curricula as they assist in promoting an entrepreneurial culture and provide students with the knowledge and skills required to pursue entrepreneurial pursuits. However, this is in contrast with the findings of Popescu et al. (2016), which demonstrated that students from the entrepreneurial field are less inclined to engage in entrepreneurship compared to students from the general stream of education.

- Students who are members of innovation and entrepreneurship-oriented cells or clubs have more entrepreneurial intentions than students who are not part of it. A recent empirical study conducted by Sansone et al. (2021) also exhibited the same result. Hence, it is clear that innovation and entrepreneurship-oriented cells or clubs have real learning advantages for students as they raise self-confidence and provide the necessary skills for starting a business (Pittaway et al., 2011).

- It is found that HEIs conducting activities such as seminars, workshops, talk series,etc are not effective as it is presumed to be. The degree of entrepreneurial intention among the students of HEIs in Kerala does not change significantly depending on whether or not the HEIs engage in these entrepreneurial activities. The study conducted by Nabi et al. (2018) also revealed a similar result. This contradicts a recent study that found a favourable association between entrepreneurial intention and entrepreneurial activities conducted by educational institutions (Hau et al., 2022). The result indicates that HEIs in Kerala need to reconsider their methodologies in conducting such programmes. HEIs need to plan such activities to be more

inclusive and more engaging. HEIs could collect feedback from students and alumni in the effectiveness of such programmes.

- It was observed that students who receive entrepreneurship and innovation support in the form of mentoring, infrastructural, and incubation facilities from higher education institutions in Kerala and those who do not receive the support have the same entrepreneurial intentions. The lack of a significant difference in mean score between students who received entrepreneurship and innovation support from HEIs in Kerala and those who did not receive support underscores the need for continuous efforts to create a more comprehensive and conducive entrepreneurial ecosystem within higher education institutions. While the current support programs may not have a significant impact on overall entrepreneurial intentions, the quality and effectiveness of such programs could be continuously evaluated and improved to maximize their potential in fostering a culture of entrepreneurship.

Table 8.2

Summary of Significant Differences Among Socio-Demographic, Economic and Background Factors of Students of HEIs in Kerala with Respect to Entrepreneurial Intention

Test Results (Independent t-test, ANOVA & post hoc) (P value and Decision regarding H0)		
Socio-demographic, economic and background factors	**Entrepreneurial Intention**	
	P value	**Result**
Gender	<0.001**	Significant
Stream of Study	<0.001**	Significant
Family Income	0.093^{NS}	Not Significant
Family Business Background	<0.001**	Significant
Entrepreneurial Course Learned	<0.001**	Significant
Membership in Innovation& Entrepreneurship oriented cells or clubs	<0.001**	Significant
Entrepreneurial Activities Conducted by the Institution	0.065^{NS}	Not Significant
Institutional Entrepreneurship and Innovation Support	0.459^{NS}	Not Significant

Source: Primary data

** denotes significant at 1% level, NS denotes not significant

3. Findings Based on Psychological Characteristics Related to Entrepreneurial Intention among Students of HEIs in Kerala Across Their Socio-demographic, Economic, and Background Factors

- A gender discrepancy in psychological characteristics related to entrepreneurial intention was found among the students of HEIs in Kerala. As measured by the mean score, male students demonstrate higher entrepreneurial self-efficacy, entrepreneurial attitude, and entrepreneurial motivation in comparison with female students. This is consistent with previous studies where male students have a strong positive attitude towards business (Wang &Wong, 2004; Manuere et al., 2013) and strong perceived behaviour control (Vamvaka et al., 2020) as well as self-efficacy (Vamvaka et al., 2020) compared with female students. A meta-analysis study conducted by Haus et al. (2013) also revealed that women express lower entrepreneurial attitudes and self-efficacy.

- There exists a disparity in psychological characteristics related to entrepreneurship across different stream of studies. In the case of entrepreneurial attitude, science students are significantly different from commerce and management students and engineering students. According to the mean score, commerce and management students have a more entrepreneurial attitude than science students. When comparing science students and engineering students, engineering students have a more entrepreneurial attitude than science students. In terms of entrepreneurial self-efficacy, science students are significantly different from commerce and management students. The mean score reveals that commerce and management students have more entrepreneurial self-efficacy than science students. While considering entrepreneurial motivation, science students are significantly different from commerce and management students, and at the same time, commerce and management students differ significantly from engineering students. Commerce and management students have more entrepreneurial motivation than science and engineering students. Students of commerce and management have a more positive attitude towards entrepreneurship, entrepreneurial self-efficacy, and entrepreneurial motivation than students studying other programmes. The low mean score of science

students can be attributed to their lack of business knowledge, which highlights the need to offer basic entrepreneurship education to science, arts, and engineering students.

- The students in Kerala with diverse family incomes had the same entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation. No significant variation was seen in all six different income groups. This shows that merely belonging to a wealthy family does not guarantee entrepreneurship, supporting the studies by Thrikawala (2011) and Sharma (2014).

- It was observed that students who have family business backgrounds exhibit higher entrepreneurial attitudes, entrepreneurial self-efficacy, and entrepreneurial motivation. A similar result was found by Kume et al. (2013) and Prabhu and Thomas (2014). Students from families with a business history may have more access to networks and resources that can assist their entrepreneurial pursuits. This access to networks and resources could increase their confidence in their ability to succeed as entrepreneurs and motivate them to explore entrepreneurial opportunities. An empirical study conducted by Carr and Sequeira (2007) proved that entrepreneurial intention is strongly influenced by family business background through the mediation variables of entrepreneurial attitude and self-efficacy.

- Students who have studied entrepreneurial subjects were found to have a better entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation than students who haven't studied entrepreneurial courses. This is consistent with previous studies where entrepreneurship education was found to lead to a higher entrepreneurial attitude (Jones et al., 2010) and a higher belief in their capabilities (Wu et al., 2022). Entrepreneurial courses focusing on areas like market research, business planning, financial management, etc. can provide students with the required knowledge and skills that can lead to a more positive attitude towards business, increase their beliefs in their capacities, and motivate them to plan the execution of a startup or business.

- It was observed that students who are members of innovation and entrepreneurship-oriented cells or clubs have a stronger entrepreneurial attitude, entrepreneurial self-efficacy, and entrepreneurial motivation than students who are not members. Membership in innovation and entrepreneurship-oriented clubs or cells might provide students with opportunities to engage and interact with people who share similar interests and aspirations. Interaction with these individuals would motivate and encourage students to pursue their dreams of becoming entrepreneurs.

- Entrepreneurial activities such as seminars, workshops, talk series, etc conducted by HEIs in Kerala are not adding to the enhancement of entrepreneurial attitude and motivation. But at the same time, entrepreneurial self-efficacy was found to have improved with the conduct of entrepreneurial activities in the college. A study conducted by Asimakopoulos et al. (2019) on a sample of engineering students also revealed a similar result, which indicates that entrepreneurial initiatives conducted by the college significantly influence the students' self-efficacy.

- Institutional innovation and entrepreneurship support provided in the form of mentoring, incubation and infrastructural facilities enhance the entrepreneurial attitude but do not lead to raising the confidence and motivation levels of students at HEIs in Kerala. Similar findings revealing the positive and significant influence of perceived university support on students' entrepreneurial attitude were found in the study conducted by Al-Bakari and Mehrez (2017) and support the statement of Lestari et al. (2022) that higher education institutions are perceived as knowledge providers by creating an environment that encourages the growth of an entrepreneurial attitude. The result alarms us about the urgent need to think about improvising the conduct of entrepreneurial activities in the college. Through the instant feedback system, alterations need to be made while framing methodologies related to entrepreneurial activities in educational institutions.

Table 8.3
Summary of Significant Difference Among Socio-Demographic, Economic and Background Factors with Respect to Psychological Characteristics Related to Entrepreneurial Intention

Test Results (Independent t-test, ANOVA & post hoc) (P value and Decision regarding H0)			
Socio-Demographic, Economic and Background Factors	**Psychological Characteristics**		
	Entrepreneurial Attitude	**Entrepreneurial Self-efficacy**	**Entrepreneurial Motivation**
Gender	<0.001** Significant	<0.001** Significant	<0.001** Significant
Stream of Study	<0.001** Significant	0.007** Significant	0.009** Significant
Family Income	0.169 ^{NS} Not Significant	0.395 ^{NS} Not Significant	0.192 ^{NS} Not Significant
Family Business Background	<0.001** Significant	<0.001** Significant	<0.001** Significant
Entrepreneurial Course Learned	<0.001** Significant	<0.001** Significant	0.005** Significant
Membership in Innovation& Entrepreneurship oriented cells or clubs	0.002** Significant	<0.000** Significant	0.004* Significant
Entrepreneurial Activities Conducted by the Institution	0.144^{NS} Not Significant	0.047* Significant	0.708 ^{NS} Not Significant
Institutional Entrepreneurship and Innovation Support	0.030* Significant	0.130^{NS} Not Significant	0.555 ^{NS} Not Significant

Source: Primary data
*** denotes significant at 1% level*
** denotes significant at 5% level*
^{NS} *denotes not significant*

4. Findings Based on Entrepreneurial Personality Traits among Students of HEIs in Kerala Across their Socio-demographic, Economic, and Background Factors

- Students of HEIs in Kerala showed significant gender variations in personality traits, particularly in the areas of the propensity for taking risks, inventiveness, and need for achievement. According to the findings, as compared to female students, male students tend to demonstrate higher degrees of risk-taking behaviour, a larger desire for achievement motivation, and a greater

predisposition towards creativity. These results correspond with social expectations and cultural conventions about gender roles and are congruent with earlier studies demonstrating gender differences in personality traits.

- The study findings revealed that engineering majors had a higher risk-taking tendency than their peers in the arts and sciences. In terms of innovation, the mean scores showed a clear contrast between students majoring in the arts and those majoring in engineering. This suggests that engineering students are more likely to develop and apply novel ideas and solutions, have a higher risk-taking capacity, and have a higher achievement need than other streams.

- Compared to students from families with incomes between Rs. 80,001 and Rs. 100,000, students from families with incomes beyond Rs. 100,000 showed a greater degree of risk inclination. However, the study revealed no statistically significant variance in family income when personality factors like innovativeness and the need for achievement were taken into account. These characteristics are known to affect entrepreneurial intention, indicating that entrepreneurial propensity among higher education students in Kerala may not be determined just by family income.

- Students from family business backgrounds appear to be more likely to take chances than those without family business experience. The result indicates that students who were raised in a family business environment may be more likely to take risks when it comes to business. Other personality traits associated with family business experiences, such as innovativeness and the need for achievement, were not found to differ significantly. A similar result was found in a study conducted among management students in Ahmedabad by Taneja and Gandhi (2015). This implies that a person's experience with family businesses may not necessarily influence certain entrepreneurial traits or skills.

- Despite no discernible changes in risk-taking propensity between the two groups, students who took entrepreneurial courses had higher levels of inventiveness and a greater need for success. This implies that the entrepreneurial course might significantly impact students' capacity for

creative thought and the generation of novel ideas, as well as enhance their motivation to pursue success and meet challenging goals.

- Students who are members of entrepreneurship and innovation-oriented clubs or cells, that is, IEDC, IIC, and ED Clubs, tend to take more risks, are more creative, and have a higher need for achievement than students who do not belong to these clubs or cells. A previous empirical study conducted by Rubin et al. (2002) also exhibited the same result. This implies that membership in innovation and entrepreneurship-oriented cells or clubs serves as a basis for experiential learning, wherein students who are active members gain the courage to take risks, move forward, try new things, and work to improve their capabilities for success.

- Students from higher education institutions in Kerala where entrepreneurial activities are conducted and those from institutions where entrepreneurial activities are not conducted exhibit similar levels of risk-taking propensity, innovativeness, and need for achievement when it comes to entrepreneurship. The findings imply that the existence or lack of entrepreneurial activity in HEIs in Kerala does not appear to have a substantial influence on the development of students' entrepreneurial personality traits like risk-taking capacity, innovativeness, and the need for achievement. The findings highlight the necessity of developing experiential learning opportunities in entrepreneurship for students at HEIs in Kerala by offering internships with startups, incubators, and well-established companies, where students can gain real-world experience and exposure to entrepreneurial activities.

- It was observed that students' personality traits, such as their willingness to take risks, their capacity for invention, and their drive for success, were unaffected by whether or not they got support for entrepreneurship and innovation from their institution. Despite the fact that there was no discernible variation in entrepreneurial personality traits depending on the support provided by the college for innovation and entrepreneurship, the study did not undervalue the importance of entrepreneurial support provided in the form of mentoring, infrastructural and incubation facilities. These facilities and support can nevertheless offer beneficial information, competencies, and

networks that can aid ambitious entrepreneurs in their endeavours. In addition to such facilities and support activities, it is imperative to prioritize the development of a supportive environment for entrepreneurship.

Table 8.4

Summary of Significant Differences among Socio-Demographic, Economic and Background Factors with Respect to Entrepreneurial Personality Traits

Test Results (Independent t-test, ANOVA & post hoc) (P value and Decision regarding H0)			
Socio-Demographic, Economic and Background Factors	**Entrepreneurial Personality Traits**		
	Risk-Taking Propensity	**Innovativeness**	**Need for Achievement**
Gender	<0.001** Significant	<0.001** Significant	<0.001** Significant
Stream of Study	0.029* Significant	0.044* Significant	0.331^{NS} Not Significant
Family Income	0.032* Significant	0.299^{NS} Not Significant	0.671 ^{NS} Not Significant
Family Business Background	0.043* Significant	0.201^{NS} Not Significant	0.053 ^{NS} Not Significant
Entrepreneurial Course Learned	0.137^{NS} Not Significant	0.005** Significant	0.040* Significant
Membership in Innovation& Entrepreneurship oriented cells or clubs	0.006** Significant	0.003** Significant	0.026* Significant
Entrepreneurial Activities Conducted by the Institution	0.395 ^{NS} Not Significant	0.632 ^{NS} Not Significant	0.069 ^{NS} Not Significant
Institutional Entrepreneurship and Innovation Support	0.633^{NS} Not Significant	0.481 ^{NS} Not Significant	0.645 ^{NS} Not Significant

Source: Primary data
*** denotes significant at 1% level*
** denotes significant at 5% level*
^{NS} *denotes not significant*

5. Findings Based on the Perception of Environmental Support among Students of HEIs in Kerala Across their Socio-demographic, Economic, and Background Factors

- The study highlighted gender differences in the perception of educational and structural support in relation to entrepreneurship among the students of HEIs in Kerala. Female students perceive a higher level of educational and structural support for entrepreneurship in comparison with male students. The result indicates that the educational support provided for entrepreneurship in the form of training, seminars, and workshops benefited female students more in comparison with male students. Compared to male students, female higher education students in Kerala perceive higher levels of structural support for entrepreneurship. They foresee greater opportunities, favourable state legislation, less complicated registration processes, and easier access to loans. These perceptions imply that female higher education students in Kerala may feel more supported and encouraged to pursue entrepreneurship in Kerala. The lack of gender disparity in the perception of relational support suggests that male and female students of HEIs in Kerala perceive the same level of support from interpersonal relationships with regard to entrepreneurship.

- Students majoring in the arts perceive greater educational support than students majoring in engineering. Compared to students specialising in science and engineering, commerce students benefit more from participation in seminars, workshops, and training programmes associated with entrepreneurship. Students majoring in engineering perceive far more relational support than students majoring in science, which contributes to an entrepreneurial mindset among engineering students. Compared to engineering and science students, arts students in higher education in Kerala perceive higher levels of structural support for entrepreneurship. Students majoring in commerce and management perceive greater structural assistance, which would in turn leads to more students intending to start their own businesses than engineering students do.

- Students from lower-income backgrounds showed a stronger impression of structural support than students from higher-income families. This suggests that students from lower socioeconomic origins may feel more supported in terms of resources and infrastructure for their entrepreneurial goals. The student's perception of support from relationships and education is unaffected by family wealth.

- The association of family business background with perceived support factors indicates that those with a family business background tend to perceive higher levels of support from their connections than those without a family business background. This suggests that being exposed to a family business may provide students with a more robust network and entrepreneurial support system. However, the perspective of students regarding structural assistance and educational support based on family business backgrounds did not appear to vary. This indicates that the perceived assistance obtained from educational resources or the general infrastructure and resources available for entrepreneurship would not be much impacted by having family business experience.

- In terms of perceived environmental support, there were no appreciable differences between students who took entrepreneurial courses and those who did not. Regardless of their exposure to entrepreneurial courses, both groups experienced similar levels of support in terms of educational resources and assistance, relational support from family and friends, and structural support.

- Student perceptions of relational and structural support are not considerably impacted by participation in innovation and entrepreneurship-focused clubs or cells. But being a part of these clubs or cells gives students a stronger sense of support in terms of educational resources and assistance provided by the institution. Pittaway et al. (2011) asserted that the active participation of the student community in entrepreneurship-oriented cells or clubs provides them with more opportunities and resources to learn while doing.

- It was observed that students perceive higher levels of educational support and structural support for entrepreneurship when educational institutions engage

in entrepreneurial activities. The perception of relational support, however, was shown to be insignificant, indicating that students' perceptions of relationship support were unaffected by the existence of entrepreneurial activity. This implies that when higher education institutions engage in entrepreneurial activities, students may receive more academic and institutional support for their entrepreneurial endeavours. Although entrepreneurial activities conducted by HEIs were found to be beneficial for the students in terms of getting proper knowledge and awareness of entrepreneurial activities, creating a cooperative and encouraging atmosphere among students, parents, and the college community might further improve students' entrepreneurial drive. Encouraging mentoring and counselling facilities, networking events, and peer-to-peer support initiatives would support students throughout their entrepreneurial path.

- Students who receive entrepreneurship and innovation support from their college perceive greater levels of educational and structural support compared to students who do not receive such support. This indicates that the presence of entrepreneurship and innovation support programs in higher education institutions positively impacts students' perceptions of the support available to them in pursuing entrepreneurial ventures. Specifically, students who have access to entrepreneurship and innovation support perceive higher levels of educational support, which may include access to mentoring support, and infrastructural and incubation facilities that can enhance students' experiences relating to entrepreneurship along with access to entrepreneurship-related courses, workshops, and resources that enhance their knowledge and skills in entrepreneurship. This educational support can equip students with the necessary tools and information to develop their business ideas and ventures. Additionally, students receiving entrepreneurship and innovation support perceive greater levels of structural support. However, the study also indicates that there is no significant difference in perceived relational support between students who receive institutional entrepreneurship and innovation support and those who do not.

Table 8.5
Summary of Significant Difference Among Socio-Demographic, Economic and Background Factors with Respect to Perceived Environmental Support Related to Entrepreneurial Intention

Test Results (Independent t-test, ANOVA & post hoc) (P value and Decision regarding H0)			
Socio-Demographic, Economic and Background Factors	**Perceived Environmental Support**		
	Perceived Educational Support	**Perceived Relational Support**	**Perceived Structural Support**
Gender	0.008** Significant	0.539^{NS} Not Significant	<0.001** Significant
Stream of Study	<0.001** Significant	0.003** Significant	<0.001** Significant
Family Income	0.092 ^{NS} Not Significant	0.003** Significant	0.016* Significant
Family Business Background	0.937^{NS} Not Significant	<0.000** Significant	0.567 ^{NS} Not Significant
Entrepreneurial Course Learned	0.183^{NS} Not Significant	0.068 ^{NS} Not Significant	0.440 ^{NS} Not Significant
Membership in Innovation& Entrepreneurship oriented cells or clubs	<0.001** Significant	0.425^{NS} Not Significant	0.299 ^{NS} Not Significant
Entrepreneurial Activities Conducted by the Institution	<0.001** Significant	0.33^{NS} Not Significant	0.022* Significant
Institutional Entrepreneurship and Innovation Support	<0.001** Significant	0.328^{NS} Not Significant	<0.001** Significant

Source: Primary data
*** denotes significant at 1% level*
** denotes significant at 5% level*
^{NS} *denotes not significant*

Objective II- To assess the level of perceived barriers hindering the formation of entrepreneurial intention among the students of HEIs in Kerala

1. Findings Based on the Level of Perceived Barriers that Hinder the Formation of Entrepreneurial Intentions among the Students of HEIs in Kerala

- The study found that perceived lack of support, lack of competency, lack of financial resources, and fear of failure were moderate barriers to entrepreneurship. Individuals who felt they lacked sufficient support, guidance, or encouragement were more likely to perceive it as a hindrance.

Further, those who believed they lacked the necessary skills or knowledge for entrepreneurship, such as a lack of business management skills, a lack of marketing skills, a lack of knowledge about setting up a new business, and a lack of business experience, were more likely to view it as a barrier. Moreover, the students perceive a moderate level of lack of fund barriers such as lack of initial capital, lack of personal savings and resources, difficulty in obtaining loans, and lack of assets for collateral securities in relation to their intention to start their own businesses. In addition, the students of HEIs in Kerala perceive a moderate level of fear of failure as a barrier, such as fear of losing money, fear of hard competition, fear of not being capable of managing the business effectively, and the fear that their business idea might fail when considering starting a new business or startups.

Table 8.6

Summary of the Level of Perceived Barriers that Hinder the Formation of Entrepreneurial Intention among the Students of HEIs in Kerala

Factors of Perceived Barriers	Chi-Square Value	P value	Inference	Level of Attainment
Perceived Lack of Support	17.80	<0.001**	**Significant**	**Moderate Level of Support Barrier**
Perceived Lack of Competency	17.66	<0.001**	**Significant**	**Moderate Level of Competency Barrier**
Perceived Lack of Funds	7.99	0.018*	**Significant**	**Moderate Level of Financial barrier**
Fear of Failure	100.03	<0.001**	**Significant**	**Moderate Level of Fear of Failure**

Source: Primary data

2. Findings Based on the Level of Perceived Barriers that Hinder the Formation of Entrepreneurial Intentions among the Students of HEIs in Kerala Across Selected Socio-Demographic, Economic, and Background Factors

- Gender-wise analysis shows that significant differences do not exist between genders when it comes to perceived barriers to entrepreneurship. This implies that both male and female individuals tend to have similar perceptions regarding barriers such as a perceived lack of funds, a perceived lack of competency, a perceived lack of support, and a fear of failure.

- It was observed that students from different academic backgrounds face similar barriers and concerns when assessing the viability and difficulties of entering the entrepreneurial world. Students tend to have similar perspectives on barriers such as a perceived lack of funds, perceived lack of competency, perceived lack of support, and fear of failure when considering establishing their own enterprises, regardless of the academic stream they are pursuing.

- Students from diverse income backgrounds share similar perceptions of barriers to starting their enterprises, regardless of their family's financial situation, indicating consistent concerns and considerations.

- Students from a family business background tend to have lower levels of perceived barriers related to support and competency compared to students from non-business backgrounds. This suggests that students who have a business-related family background may feel they have greater support, skills, and knowledge when starting their own businesses. Furthermore, the study found no appreciable differences in perceived barriers relating to a lack of funds and fear of failure between the students with family business backgrounds and those without it.

- Students from higher education institutions in Kerala, regardless of whether they have received formal entrepreneurship education or not, tend to perceive similar barriers when considering starting their own ventures. This means that the act of taking entrepreneurial courses does not significantly alter student's views on barriers such as a perceived lack of funds, perceived lack of competency, perceived lack of support, and fear of failure. The study highlights that while entrepreneurship education is undoubtedly valuable in equipping students with knowledge and skills, it might not be sufficient to significantly alter students' perceptions of barriers to entrepreneurship. Addressing these barriers may require a more comprehensive and multi-faceted approach that involves strengthening support networks, facilitating access to financial resources, and fostering a culture that embraces risk-taking and resilience.

- It has been discovered that there is no discernible difference between students who are members of innovation and entrepreneurship-oriented cells or clubs and

those who are not in terms of perceived barriers to entrepreneurship. This finding suggests that membership in I&E-oriented cells or clubs offers networking and collaboration opportunities but does not appreciably change students' perceptions of business barriers. Therefore, it is crucial to recognise that membership advantages would lie in other areas such as acquiring practical skills, network development, and exposure to entrepreneurial activities.

- Students from institutions with regular entrepreneurial activities reported lower levels of lack of support barriers compared to those from institutions where entrepreneurial activities are not conducted on a regular basis. It demonstrates that students feel more encouraged to pursue their entrepreneurial pursuits when they have the opportunity to participate in entrepreneurial activities supported by their educational institution. This finding highlights the potential advantages of offering entrepreneurial activities within colleges, as it can help address the perceived lack of support among students. However, the perception of barriers such as lack of competency, lack of funds, and fear of failure was not significantly different between students from educational institutions where entrepreneurial activities are conducted and those from institutions where they are not conducted.

- It was observed that when educational institutions provide support for innovation and entrepreneurship in terms of mentorship, networking opportunities, infrastructural facilities, funding options, and other supportive resources, it leads to a low level of perceived lack of support barrier. This implies that when colleges actively promote and support innovation and entrepreneurship initiatives, students feel more supported in their entrepreneurial pursuits. When students have access to mentorship, networking opportunities, infrastructural facilities, funding options, and other supportive resources, they feel more confident and empowered to pursue their entrepreneurial aspirations. However, the perception of barriers such as lack of competency, lack of funds, and fear of failure was not significantly different between students who received institutional support for entrepreneurship and innovation and those who did not receive such support.

Table 8.7

Summary of the Chi-Square Test for Association Between Selected Socio-Demographic, Economic, and Background Factors and Level of Perceived Entrepreneurial Barriers

Test Results (Independent t-test, ANOVA & post hoc) (P value and Decision regarding H0)				
Socio-Demographic, Economic and Background Factors	**Perceived Entrepreneurial Barriers**			
	Perceived Lack of Support	**Perceived Lack of Competency**	**Perceived Lack of Fund**	**Fear of Failure**
Gender	0.986^{NS} Not Significant	0.058^{NS} Not Significant	0.488^{NS} Not Significant	0.157^{NS} Not Significant
Stream of Study	0.700^{NS} Not Significant	0.151^{NS} Not Significant	0.118^{NS} Not Significant	0.785^{NS} Not Significant
Family Income	0.492^{NS} Not Significant	0.967^{NS} Not Significant	0.160^{NS} Not Significant	0.228^{NS} Not Significant
Family Business Background	<0.001** Significant	<0.001** Significant	0.994^{NS} Not Significant	0.055^{NS} Not Significant
Entrepreneurial Course Learned	0.062^{NS} Not Significant	0.289^{NS} Not Significant	0.394^{NS} Not Significant	0.503^{NS} Not Significant
Membership in I&E oriented cells or clubs	0.811^{NS} Not Significant	0.077^{NS} Not Significant	0.157^{NS} Not Significant	0.223^{NS} Not Significant
Entrepreneurial Activities Conducted by the Institution	0.050* Significant	0.326^{NS} Not Significant	0.973^{NS} Not Significant	0.705^{NS} Not Significant
Institutional I&E Support	0.002** Significant	0.365^{NS} Not Significant	0.386^{NS} Not Significant	0.726^{NS} Not Significant

Source: Primary data
*** denotes significant at 1% level*
** denotes significant at 5% level*
^{NS} *denotes not significant*

3. Findings Based on the Perceived Entrepreneurial Barrier with Regard to the Degree of Entrepreneurial Intention among the Students of HEIs in Kerala

It was observed that students who had high levels of entrepreneurial intention perceived low levels of barriers to entrepreneurship, while students who had low levels of entrepreneurial intention perceived high levels of barriers to entrepreneurship. Lack of funds was the highest barrier perceived by the students of HEIs in Kerala, followed by lack of competency. Fear of failure was found to be less common for students with high entrepreneurial intentions, while lack of support was found to be the least common barrier for students with low entrepreneurial intentions. The study found that lack of funding represents the most formidable barrier to entrepreneurial endeavours. This indicates that financial constraints pose a significant challenge for aspiring entrepreneurs and can influence their intention to start a

business. Access to capital and financial resources are crucial factors that can either facilitate or hinder entrepreneurial ventures, and addressing this barrier is essential to encourage more students to pursue entrepreneurship. Policymakers, financial institutions, and support organizations are strongly recommended to consider implementing measures such as accessible loans, venture capital opportunities, and entrepreneurial grants to alleviate funding challenges and promote entrepreneurial activities. Moreover, collaborative efforts need to be made to address the lack of competencies among aspiring entrepreneurs, as it represents a significant barrier that needs to be overcome through targeted educational and skill development initiatives. Strengthening entrepreneurship education and providing targeted training and skill development opportunities can help address this barrier and equip students with the necessary competencies to venture into entrepreneurship confidently. The study conducted by Man and Lau (2005) suggested that individuals can enhance their entrepreneurial competencies by engaging in educational pursuits, participating in skill development programmes, undergoing training, and gaining practical work experience.

Table 8.8
Summary of the Chi-square Test for Association Between the Degree of Entrepreneurial Intention among the Students of HEIs in Kerala and the Level of Perceived Entrepreneurial Barrier

Factors of Perceived Barriers	Chi-Square Value	P value	Inference	Most Affected Category	Least Affected Category
Perceived Lack of Support	**23.85**	**<0.001****	**Significant**	**Low EI**	**High EI**
Perceived Lack of Competency	**28.85**	**<0.001****	**Significant**	**Low EI**	**High EI**
Perceived Lack of Fund	**15.83**	**<0.001****	**Significant**	**Low EI**	**High EI**
Fear of Failure	**50.52**	**<0.001****	**Significant**	**Low EI**	**High EI**

Source: Primary data

Table 8.9

Summary of One Sample T-test for Measuring the Perceived Entrepreneurial Barriers among Students of HEIs in Kerala with Low and High Levels of Entrepreneurial Intention

Factors of Perceived Entrepreneurial Barriers	Level of Entrepreneurial Intention	Mean	Standard Deviation	Mean difference	T value	P Value	Ranking based on mean
Perceived Lack of Support	Low EI	3.51	0.94	0.51	12.28	<0.001** Significant	IV
	High EI	3.19	1.04	0.19	4.31	<0.001** Significant	III
Perceived Lack of Competency	Low EI	3.67	0.94	0.67	16.26	<0.001** Significant	II
	High EI	3.28	1.12	0.28	5.92	<0.001** Significant	II
Perceived Lack of Fund	Low EI	3.69	0.91	0.69	17.26	<0.001** Significant	I
	High EI	3.44	1.07	0.44	9.68	<0.001** Significant	I
Fear of Failure	Low EI	3.66	1.00	0.66	14.93	<0.001** Significant	III
	High EI	3.17	1.14	0.17	3.69	<0.001** Significant	IV

Source: Primary data

Objective III- To examine the intervening role of entrepreneurial attitude among the students of HEIs in Kerala in the relationship between entrepreneurial personality traits and entrepreneurial intentions.

1. Findings Based on Hypotheses Testing Pertaining to the Direct Effects in the Mediation Model.

- It is observed that the need for achievement is not a significant factor that affects entrepreneurial attitude and intention among the students of HEIs in Kerala. This implies that other individual factors or external factors may have a stronger influence on entrepreneurial intention compared to the need for

achievement. The findings were supported by the study conducted among Indonesian and Norwegian students by Kristiansen and Indarti (2004), in which the need for achievement was found not to be a significant contributor to entrepreneurial intention. A similar result was also found by Indarti & Kristiansen (2003) and Sun et al. (2020). However, this is in contrast with the findings of many studies that show a direct, positive, and significant relationship between the need for achievement and entrepreneurial intention (Anwar & Saleem, 2019; Çolakoğlu & Gözükara, 2016; Dinis et al., 2013). Furthermore, the students of HEIs in Kerala have high motivation for achievement, but that need for success is not contributing to a positive attitude towards business and is not leading to the desire to start a business. A similar result was found in a study conducted by Fauzia and Agustina (2021) among Generation Z. Many studies in different cultures and geographical locations have shown a strong relationship between the need for achievement and entrepreneurial intention as well as attitude (Yasa et al., 2018; Asmara et al., 2016; Zhuang et al., 2022). However, Kerala has a cultural background where higher education and a stable job are considered to be of higher social status. Moreover, the general perception is that entrepreneurship is a risky and uncertain career path. This can be presumed to be the reason why a higher need for achievement is not translated into a higher entrepreneurial attitude or intention.

- The study results prove that risk-taking propensity would significantly contributes to entrepreneurial intention among the students of HEIs in Kerala. It has been proven in related studies that an individual who is prepared to take risks tends to choose entrepreneurship. (Koe, 2016; Kumar et al., 2021; Manik & Kusuma, 2021). Many studies have backed up and continued to back up the notion that people who are willing to start a business are more likely to take the risk (Koh, 1996; Özarallı & Rivenburgh, 2016; Shahzad et al., 2021; Yurtkoru et al., 2014). Similarly, a significant and meaningful relationship exists between a student's propensity for risk-taking and their attitude towards engaging in entrepreneurial activities. Thus, it is evident that the risk-taking propensity of higher education students in Kerala significantly contributes to

their positive entrepreneurial attitude. A similar result was found in many empirical studies showing the positive influence of risk-taking propensity on entrepreneurial intention (Asmara et al., 2016; Anwar et al., 2021; Munir et al., 2019; Zhuang et al., 2022).

- The relationship between innovativeness and entrepreneurial intention was found to be insignificant in the study. The innovative characteristics of higher education students in Kerala do not directly contribute to their entrepreneurial intentions. A similar result was found in studies conducted by Colman et al. (2019) and Arroyo-López et al. (2021). But it was found that the innovative behaviour of students can boost a positive attitude towards entrepreneurship, ultimately leading to a desire to initiate innovative ventures. A significant relationship between innovativeness and entrepreneurial attitude was proven by Law and Breznik (2017).

- The study highlights the fact that students' entrepreneurial attitude is the strongest predictor of their intention to pursue entrepreneurship. Attitude towards entrepreneurship was proven to be the strongest predictor of intention to start a business in several previous studies (Lüthje & Franke, 2003; Munir et al., 2019; Naushad, 2018). The findings of the study reveal entrepreneurial attitude was high among students of Higher Education Institutions in Kerala suggesting a favourable environment for fostering entrepreneurship in the region. This highlights the potential for nurturing and supporting entrepreneurial initiatives among students, leading to increased entrepreneurial activities and innovation. Policymakers and educational institutions can leverage this positive attitude by providing resources, mentorship programs, and entrepreneurial support to further cultivate the entrepreneurial ecosystem in Kerala and drive economic growth and development.

Table 8.10
A Summary of the Outcomes of the Hypotheses Testing Pertaining to the Direct Effects in the Mediation Model
(Entrepreneurial Personality Traits and Entrepreneurial Attitude on Entrepreneurial Intention)

Construct	Path	Construct	Hypotheses	Result
Entrepreneurial Intention	←	**Need for Achievement**	The need for achievement has a positive, direct, and significant effect on entrepreneurial intention	**Not Significant**
Entrepreneurial Intention	←	**Risk-taking Propensity**	Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial intention	**Significant**
Entrepreneurial Intention	←	**Innovativeness**	Innovativeness has a positive, direct, and significant effect on entrepreneurial intention	**Not Significant**
Entrepreneurial Attitude	←	**Need for Achievement**	The need for achievement has a positive, direct, and significant effect on entrepreneurial attitude	**Not Significant**
Entrepreneurial Attitude	←	**Risk-taking Propensity**	Risk-taking propensity has a positive, direct, and significant effect on entrepreneurial attitude	**Significant**
Entrepreneurial Attitude	←	**Innovativeness**	Innovativeness has a positive, direct, and significant effect on entrepreneurial attitude	**Significant**
Entrepreneurial Intention	←	**Entrepreneurial Attitude**	Entrepreneurial attitude has a positive, direct, and significant effect on entrepreneurial intention	**Significant**

Source: Primary data

2. Findings Based on Hypotheses Testing Pertaining to the Indirect Effects in the Mediation Model.

- The entrepreneurial attitude was found to be inefficient in mediating the relationship between the need for achievement and the entrepreneurial intention among the students of HEIs in Kerala. Hence, it can be inferred that there is no noticeable direct or mediating effect present in these pathways.

While the need for achievement is often associated with entrepreneurial personality traits, the present study found that it does not contribute to the formation of entrepreneurial intention. These findings imply that other factors beyond the need for achievement, such as personal and contextual, may play a more significant role in shaping entrepreneurial intention and attitude among the students of HEIs in Kerala.

- A positive and significant mediating impact of entrepreneurial attitude on the link between students' risk-taking propensity and entrepreneurial intention was established. The findings imply that students of HEIs in Kerala who are more inclined to take risks are more likely to have a stronger desire to become entrepreneurs and possess a positive attitude towards entrepreneurship. The statement denotes the presence of a partial mediation effect within the model. When individuals possess a greater risk-taking capacity, it leads to the development of a positive attitude towards entrepreneurship, which, in turn, significantly influences their intention to engage in entrepreneurial activities. The findings are supported by the studies conducted by Ahmed et al. (2021) and Naushad (2018).

- Entrepreneurial attitude was found to have a positive and significant mediating effect on the link between students' innovativeness and entrepreneurial intention. The results suggest that while innovativeness may not directly affect entrepreneurial intention, it does have a considerable impact on entrepreneurial attitude. Hence, there is complete mediation. Being innovative does not directly determine an individual’s desire to start a business, but it greatly affects their mindset and attitude towards entrepreneurship. Innovative individuals are more likely to be open to new ideas, willing to take risks, and adaptable to change, which contribute to their overall inclination and readiness to engage in entrepreneurial activities. A similar finding was noted by Law and Breznik (2017).

Table 8.11

A Summary of the Outcomes of the Hypotheses Testing Pertaining to the Indirect Effects in the Mediation Model Using Entrepreneurial Attitude as a Mediating Variable

Independent construct	Mediation construct	Dependent construct	Mediation Hypotheses	Result
Need for Achievement	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial Attitude plays a mediating role in the relationship between the need for achievement and entrepreneurial intention	**No mediation**
Risk-taking propensity	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial Attitude plays a mediating role in the relationship between risk-taking propensity and entrepreneurial intention	**Partial mediation**
Innovativeness	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial Attitude plays a mediating role in the relationship between Innovativeness and entrepreneurial intention	**Full mediation**

Source: Primary data

Objective IV- To examine the mediating role of entrepreneurial motivation among the students of HEIs in Kerala in the relationship between perceived environmental support and entrepreneurial intention.

1. Findings Based on Hypotheses Testing Pertaining to the Direct Effects in the Mediation Model.

- Entrepreneurial motivation has been found to be the best predictor of entrepreneurial intention. There exists a positive relationship between entrepreneurial motivation and students' entrepreneurial intentions. This implies that entrepreneurial motivation drives the intention of an individual to pursue entrepreneurship as a career. Individuals who have a higher level of motivation to become entrepreneurs are more likely to have a clear intention

and desire to start their own businesses. Studies by Tentama (2018) and Jermsittiparsert (2020) found a similar outcome. Thus, increased motivation for achievement, wealth, creativity, and independence causes a greater desire to start a business, demonstrating a favourable relationship between motivation and entrepreneurial intention. The findings of the study suggest that fostering and nurturing entrepreneurial motivation is crucial to encouraging individuals to take concrete steps towards entrepreneurship. Therefore, it is crucial to proactively inspire and support individuals in developing their entrepreneurial motivation through education, mentorship, and providing resources and opportunities. Additionally, this finding suggests that it is important to consider the role of motivation when designing entrepreneurship programmes and initiatives. By focusing on boosting individuals' motivation to become entrepreneurs, it becomes more likely that they would translate their intentions into actual entrepreneurial actions. This can lead to increased rates of business startups, job creation, and economic growth in the long run.

- The study's results indicate no statistically significant direct correlation between perceived support for education and the desire to start a business. Perceived educational support for entrepreneurship does not immediately encourage the students of HEIs in Kerala to pursue entrepreneurial goals. Similar results were reported by Ambad and Damit (2016) and Oosterbeek et al. (2010). However, it was discovered that while there was no direct impact of perceived educational support on entrepreneurial intentions, the provision of entrepreneurship knowledge, training, and programs, as well as activities aimed at nurturing students' creative ideas, showed potential to increase their motivation levels. This indicates that although the immediate effect of educational support on entrepreneurial intentions may be limited, it can still have an indirect influence by empowering students with the necessary skills and confidence to embark on entrepreneurial endeavors.

- It has been discovered that students who have strong support from their family and friends may be inspired to undertake entrepreneurial endeavours. Furthermore, social interactions made possible through family and friends can

induce students to pursue entrepreneurship as a career choice. The study's findings demonstrate a strong, positive association between perceived relational support and entrepreneurial intention among students of HEIs in Kerala. This suggests that having understanding parents is a key element in affecting students' intentions to pursue entrepreneurship (Gelaidan & Abdullateef, 2017). Moreover, students are more likely to take the initiative to start a business when social networks exist (Zafar et al., 2012). Furthermore, the support from family and friends received by students of HEIs in Kerala significantly contributes to their positive entrepreneurial motivation. This suggests that social norms affect students' willingness to engage in entrepreneurial activity, with successful role models supporting their ideas and inspiring them to do so (Obschonka et al., 2012).

- The study focuses on the finding that students' perceptions of structural support do not appear to motivate them to pursue entrepreneurship or seem to foster an intention to do so. The outcome demonstrates that perceived structural support does not positively, directly, or significantly impact entrepreneurial motivation and intention. The result implies the possibility that the level of perceived structural support provided by the institutions is not sufficient or effectively communicated to students. Even if the resources and facilities are available, students might not be aware of them or understand how to access and utilize them for entrepreneurial purposes. This lack of awareness or clear communication could dampen the impact of structural support on their intentions. An earlier study by Ambad and Damit (2016) found a similar conclusion. The aforementioned observation suggest that the structural support provided to students by the Kerala government and their respective communities would not be that effective in cultivating a sustained entrepreneurial mindset among students of HEIs in Kerala.

Table 8.12
A Summary of the Outcomes of the Hypotheses Testing Pertaining to the Direct Effects in the Mediation Model (Perceived Environmental Support, Entrepreneurial Motivation and Entrepreneurial Intention)

Construct	Path	Construct	Hypotheses	Result
Entrepreneurial Intention	←	**Perceived Educational Support**	Perceived educational support has a positive, direct, and significant effect on entrepreneurial intention	Not Significant
Entrepreneurial Intention	←	**Perceived Relational Support**	Perceived relational support has a positive, direct, and significant effect on entrepreneurial intention	Significant
Entrepreneurial Intention	←	**Perceived Structural Support**	Perceived structural support has a positive, direct, and significant effect on entrepreneurial intention	Not Significant
Entrepreneurial Motivation	←	**Perceived Educational Support**	Perceived educational support has a positive, direct, and significant effect on entrepreneurial motivation	Significant
Entrepreneurial Motivation	←	**Perceived Relational Support**	Perceived relational support has a positive, direct, and significant effect on entrepreneurial motivation	Significant
Entrepreneurial Motivation	←	**Perceived Structural Support**	Perceived structural support has a positive, direct, and significant effect on entrepreneurial motivation	Not Significant
Entrepreneurial Intention	←	**Entrepreneurial Motivation**	Entrepreneurial motivation has a positive, direct, and significant effect on entrepreneurial intention	Significant

Source: Primary data

2. **Findings Based on Hypotheses Testing Pertaining to the Indirect Effects in the Mediation Model.**

- In the association between perceived educational support and entrepreneurial intention, entrepreneurial motivation was found to have a mediating influence. Since the direct relationship between perceived educational support and entrepreneurial intention fails to reach statistical significance, the analysis of the mediating effect of entrepreneurial motivation in the link between perceived educational support and entrepreneurial intention reveals a full mediation effect. This implies that even though the relationship between entrepreneurship education support and intention was not directly affected, entrepreneurship education improved entrepreneurial motivation, which in turn would increase entrepreneurial intention. Studies by Mahendra et al. (2017) and Hassan et al. (2021) produced similar findings.

- The study shows a partial mediation pathway that links perceived relational support and entrepreneurial intention through entrepreneurial motivation. This implies that the perceived support from family and friends has a stronger impact on motivating an individual to become an entrepreneur than their entrepreneurial intention. A similar result was found in studies conducted by Shen et al. (2017) and Cardella et al. (2019). The findings suggest that, when people feel supported by their relationships, it can greatly motivate them to pursue entrepreneurial endeavours. This support plays a more significant role in driving their motivation than just their initial intention or desire to start a business. Motivation would further strengthen entrepreneurial intention and would leads to entrepreneurial behaviour.

- Entrepreneurial motivation does not mediate the relationship between perceived structural support and entrepreneurial intention among the students of HEIs in Kerala. The findings indicate that merely providing structural support by way of providing greater opportunities, favourable state legislation, less complicated registration processes, and easier access to loans may not always result in an immediate rise in entrepreneurial intentions or the formation of entrepreneurial motivation. This implies that offering support systems and resources alone may not be sufficient to considerably foster students' motivation to become entrepreneurs or develop strong entrepreneurial intentions.

- The study emphasises the existence of a partial mediation effect of entrepreneurial motivation in the link between general perceived environmental support and entrepreneurial intention among the students of HEIs in Kerala. Furthermore, it was found that the indirect influence is greater than the direct effect in the relationship between the perception of general environmental support and entrepreneurial intention, using entrepreneurial motivation as a mediator. As a result, it can be stated that the entrepreneurial intention of students at HEIs in Kerala is largely determined by their entrepreneurial motivation. If the HEIs, government, and societal community provide adequate environmental support to students in the form of education support, relational support, and structural support, it would aid in the

development of entrepreneurial motivation among higher education students, which can lead to their intention to start a business.

Table 8.13
A Summary of the Outcomes of the Hypotheses Testing Pertaining to the Indirect Effects in the Mediation Model Using Entrepreneurial Motivation as a Mediating Variable

Independent construct	Mediation construct	Dependent construct	Mediation Hypotheses	Result
Perceived Environmental Support	Entrepreneurial Motivation	Entrepreneurial Intention	Entrepreneurial motivation has an intervening effect in the relationship between perceived environmental support and entrepreneurial intention	**Partial Mediation**
Perceived Educational Support	Entrepreneurial Motivation	Entrepreneurial Intention	Entrepreneurial motivation has an intervening effect in the relationship between perceived educational support and entrepreneurial intention	**Full Mediation**
Perceived Relational Support	Entrepreneurial Motivation	Entrepreneurial Intention	Entrepreneurial motivation has an intervening effect in the relationship between perceived relational support and entrepreneurial intention	**Partial Mediation**
Perceived Structural Support	Entrepreneurial Motivation	Entrepreneurial Intention	Entrepreneurial motivation has an intervening effect in the relationship between perceived structural support and entrepreneurial intention	**No Mediation**

Source: Primary data

Objective V- To analyse the mediating effect of entrepreneurial self-efficacy and entrepreneurial attitude among the students of HEIs in Kerala in the relationship between perceived barriers and entrepreneurial intentions.

1. Findings Based on Hypotheses Testing Pertaining to the Direct Effects in the Mediation Model.

- The perceived barriers to entrepreneurship have no direct influence on entrepreneurial intention among the students of HEIs in Kerala. This finding contradicts prior studies that reported a direct negative association between perceived barriers and entrepreneurial intention (Rasool et al., 2022; Kong et al., 2020; Yao et al., 2016).

- The study highlights the fact that perceived entrepreneurial barriers negatively influence the entrepreneurial attitude of higher education students in Kerala.

Perceived barriers, such as a lack of resources and information, a lack of support, and a fear of failure, can have a negative influence on students' entrepreneurial attitudes would make them less inclined to pursue entrepreneurship as a career. This implies that if an individual perceives high entrepreneurial barriers, it would reduce their attitude towards business and ultimately affects their entrepreneurial intention. To foster a more favourable entrepreneurial attitude among students, it is crucial to address and minimise perceived barriers. Additionally, it is imperative to actively challenge and change negative cultural norms surrounding entrepreneurship, creating a more conducive environment for entrepreneurial mindset development. By reducing perceived barriers, students' entrepreneurial attitudes can be positively influenced, leading to a greater inclination and enthusiasm for entrepreneurial activities. This would contribute a thriving entrepreneurial ecosystem in Kerala with increased participation, innovation, and economic growth.

- It was observed that perceived barriers have a detrimental impact on self-efficacy among students of Higher Education Institutions (HEIs) in Kerala. This implies that when students perceive significant barriers, such as a lack of funds, limited support systems, societal constraints, fear of failure, or a lack of competencies, it undermines their belief in their own capabilities to succeed as entrepreneurs. Thus, to enhance entrepreneurial self-efficacy among students, it is crucial to address and minimise perceived barriers. This can be achieved by providing comprehensive support systems, access to resources, mentorship programmes, and fostering an entrepreneurial culture that promotes resilience and problem-solving skills. By mitigating perceived barriers, students' belief in their own abilities can be strengthened, leading to increased entrepreneurial self-efficacy, which, in turn, would positively influence their entrepreneurial intentions and future success as entrepreneurs.

Table 8.14
A Summary of the Outcomes of the Hypotheses Testing Pertaining to the Direct Effects in the Mediation Model
(Perceived Barriers, Entrepreneurial Attitude and Entrepreneurial Self-efficacy on Entrepreneurial Intention)

Construct	Path	Construct	Hypotheses	Result
Entrepreneurial Intentions	←	**Perceived Entrepreneurial Barriers**	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial intentions.	**Not Supported**
Entrepreneurial Self-efficacy	←	**Perceived Entrepreneurial Barriers**	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial self-efficacy	**Supported**
Entrepreneurial Intentions	←	**Entrepreneurial Self-efficacy**	Entrepreneurial self-efficacy has a positive, direct, and significant effect on entrepreneurial intentions.	**Supported**
Entrepreneurial Attitude	←	**Perceived Entrepreneurial Barriers**	Perceived entrepreneurial barriers have a negative and direct effect on entrepreneurial attitude	**Supported**
Entrepreneurial Intentions	←	**Entrepreneurial Attitude**	Entrepreneurial attitude has a positive, direct, and significant effect on entrepreneurial intentions.	**Supported**

Source: Primary data

2. Findings Based on Hypotheses Testing Pertaining to the Indirect Effects in the Mediation Model.

- The study revealed a negative and significant mediation effect of entrepreneurial attitude and self-efficacy in the relationship between perceived entrepreneurial barriers and entrepreneurial intention. This implies that even though perceived entrepreneurial barriers do not have a direct negative influence on students' entrepreneurial intentions, perceived barriers to entrepreneurship negatively influence entrepreneurial attitude and self-efficacy. This, in turn, would reflect on the desire of students to pursue entrepreneurship as a career choice. Lack of funds, fear of failure, lack of competencies, and lack of support can hinder a person's perceived desirability and self-confidence, resulting in a distortion in their intention to pursue entrepreneurship.

Table 8.15
A Summary of the Outcomes of the Hypotheses Testing Pertaining to the Indirect Effects in the Mediation Model Using Entrepreneurial Attitude and Self-efficacy as Mediating Variables

Independent construct	Mediation construct	Dependent construct	Mediation Hypotheses	Result
Perceived Entrepreneurial Barriers	Entrepreneurial Attitude	Entrepreneurial Intention	Entrepreneurial attitude has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions	**Full mediation effect.**
Perceived Entrepreneurial Barriers	Entrepreneurial Self-efficacy	Entrepreneurial Intention	Entrepreneurial self-efficacy has a mediating role in the relationship between perceived entrepreneurial barriers and entrepreneurial intentions.	**Full mediation effect.**

Source: Primary data

Objective VI- To extract the moderating effect of institutional I&E support on the relationship between the psychological characteristics of students in HEIs in Kerala and their entrepreneurial intentions

1. Findings Based on Hypotheses Testing Pertaining to Moderating Effect of Institutional Innovation and Entrepreneurship Support on the Relationship Between the Psychological Characteristics of Students in HEIs in Kerala and their Entrepreneurial Intentions.

The findings of the present study indicate that the support provided to students in HEIs in Kerala for entrepreneurship and innovation does not have an impact on how specific psychological characteristics are related to the students' entrepreneurial intentions. These psychological characteristics include the students' attitude towards entrepreneurship, entrepreneurial self-efficacy and their level of motivation to engage in entrepreneurial activities. This implies that regardless of how much support students receive from their educational institutions in terms of resources, guidance, or programmes related to entrepreneurship, the factors of psychological characteristics

still primarily influence the students' intention to become entrepreneurs. Institutional support for entrepreneurship and innovation does not significantly alter the relationship between the students' psychological characteristics and their entrepreneurial intentions.

Table 8.16

Result Summary of the Direct and Moderating Effect Hypothesis Testing

SI. NO.	Hypotheses	Result
MOD.H1	The psychological characteristics of the students in higher education institutions in Kerala have a direct and positive effect on their entrepreneurial intentions	***Supported***
MOD.H2	Psychological characteristics of the students have a positive effect on their entrepreneurial intentions, and institutional innovation and entrepreneurship support moderate this relationship	***Not Supported***

Source: Primary data

8.3 Conclusion

The study on entrepreneurial intention and its antecedents among students of HEIs in Kerala reveals an above-average level of intention. A significant proportion prefer to be entrepreneurs, and they are willing to put in the effort to start and run their own businesses. The most prominent factor determining entrepreneurial intention is entrepreneurial attitude, followed by entrepreneurial motivation and self-efficacy. In addition to this, a gender discrepancy in entrepreneurial intention among students of HEIs in Kerala was also observed. Male students possess higher entrepreneurial intention, attitude, self-efficacy, and motivation and also possess a higher risk-taking propensity, innovativeness, and need for achievement. Female students perceive higher educational and structural support as related to entrepreneurship. Further, differences were found with regard to the stream of study. Commerce students have higher entrepreneurial intention, attitude, self-efficacy, and motivation, and science students were found to have the lowest score. Engineering students have high risk-taking capacity, are more innovative, and have high achievement needs in comparison among students from other streams. Commerce students perceive higher educational

support, engineering students perceive the highest relational support, and Arts students perceive higher structural support related to entrepreneurship. Besides, students from family business backgrounds have higher entrepreneurial intention, attitude, self-efficacy, motivation, and risk-taking capacity and also perceive the highest relational support for entrepreneurship. Moreover, students who have studied entrepreneurial courses have higher intentions, attitudes, self-efficacy, motivation, innovativeness, and need for achievement. Further, students who are members of I&E-oriented cells or clubs also have higher intention, attitude, self-efficacy, motivation, innovativeness, risk-taking capacity, and need for achievement, and they also perceive the highest education support related to entrepreneurship. In addition, students from colleges where I&E activities are conducted on a regular basis have higher self-efficacy and perceive higher education and structural support. Furthermore, institutional support for entrepreneurship would lead to higher attitudes and perceptions of higher educational and structural support.

Moreover, students from HEIs in Kerala perceive moderate barriers to forming entrepreneurial intentions, including lack of support, lack of competency, lack of funds, and fear of failure. Students from family business backgrounds perceive lesser barriers in lack of entrepreneurial support and competency compared to others. Further, entrepreneurial activities conducted by the colleges and institutional support for entrepreneurship and innovation provided would lead to a lower lack of support barrier. Additionally, high perceptions of barriers were found among students with low entrepreneurial intentions, and low perceptions of barriers were found among students with high entrepreneurial intentions. Besides, lack of funds was the prominent barrier perceived by the students of HEIs in Kerala, followed by lack of competency. The fear of failure was found to be lower among students with high entrepreneurial intentions.

Furthermore, entrepreneurial attitudes were found to be the most significant contributor to entrepreneurial intentions. The mediating role of entrepreneurial attitude in the relationship between entrepreneurial intention and personality traits, including risk-taking propensity and innovativeness, has been established. In addition to the above, the mediating role of entrepreneurial motivation in the relationship between entrepreneurial intention and perceived environmental support factors such as educational and relational support were also established. Besides, it was found that

entrepreneurial attitude and self-efficacy play a vital role in the relationship between perceived barriers and entrepreneurial intention. It was revealed that even though no direct relationship exists between perceived barriers and entrepreneurial intention, perceived barriers would negatively influence entrepreneurial attitude and self-efficacy, which in turn would reduce the intention to pursue entrepreneurial ventures.

In addition to the above, factors of psychological characteristics, including entrepreneurial attitude, self-efficacy, and motivation would primarily influence the students' intention to become entrepreneurs. However, it was also established that institutional support for entrepreneurship and innovation do not moderate the relationship between students' psychological characteristics and their entrepreneurial intentions.

The comprehensive study on entrepreneurial intention and its antecedents among students of HEIs in Kerala underscores the substantial potential and aspirations present within the student population for entrepreneurship. The findings illuminate the pivotal role of entrepreneurial attitude, self-efficacy, and motivation in driving intentions to embark on entrepreneurial ventures. While certain demographic and educational factors do influence these intentions, the study emphasizes the need for targeted interventions and educational enhancements to empower all students, regardless of gender or academic background, to confidently pursue their entrepreneurial aspirations. The identification of perceived barriers highlights the significance of addressing support, competency, and funding concerns through strategic collaborations with external organizations and policy improvements. These insights provide valuable guidance for higher education institutions and policymakers to nurture an environment that empowers the next generation of entrepreneurs, fostering innovation, economic growth, and societal development.

CHAPTER 9

RECOMMENDATIONS, IMPLICATIONS, AND SCOPE FOR FURTHER RESEARCH

Contents

9.1 Introduction

The present chapter extends various recommendations based on the conclusions drawn from the study to the stakeholders who are responsible for formulating strategies for the education system in general and, more significantly, for the higher education institutions in Kerala. The recommendations provided in the present chapter aim to provide valuable insights and practical guidance to educators, policymakers, parents, and the student community, highlighting their collective responsibility in encouraging and nurturing an entrepreneurial mindset among the students.

9.2 Recommendations of the Study

9.2.1 Recommendations to the Higher Education Institutions

The findings of the study reveal that students of higher education institutions in Kerala have a high propensity for taking risks, are innovative by their characteristics, and have a high need for achievement. But the study reveals that even though students of HEIs in Kerala possess a higher need for achievement, it does not contribute to their entrepreneurial intention. The traditional education system followed in HEIs in Kerala focuses on getting placement in a secured job, which is considered the ultimate achievement of our education. Higher education institutions could change this perception and empower students to take part in research, innovation, and entrepreneurship. This can make the need for achievement a contributing factor to entrepreneurial attitude and intention. The following suggestions would contribute to the creation of an environment that would nurture and support the entrepreneurial aspirations among the students of HEIs in Kerala.

- HEIs are advised to promote creativity, innovation, and cognitive thinking as essential skills for career success. Entrepreneurship education programmes ought to highlight the benefits and opportunities of entrepreneurship, encouraging individuals to explore alternative job paths. Providing case studies and success stories of successful entrepreneurs can dispel the notion that entrepreneurship is risky. Moreover, supportive environments that promote networking and linkages with successful businesspeople can help individuals channel their need for achievement into concrete entrepreneurial actions and ventures. Additionally, highlighting government support, policies, and resources available for entrepreneurs would instil confidence in considering entrepreneurship as a viable career option.
- HEIs can conduct research, innovation, and entrepreneurship-related workshops, seminars, training programmes, and experiential learning activities that would assist students in acquiring the necessary practical skills and knowledge to feel confident in their capabilities to succeed as entrepreneurs in the future.
- It is advisable to expand the entrepreneurial activities conducted within the HEIs to include market experiences, entrepreneurial networks, internships, and partnerships with industries in addition to seminars, conferences, and classroom lectures. Proper feedback mechanisms could be followed on such programme outputs regularly to ensure their effectiveness. Feedback could also be collected from the students to identify areas for further improvement and utilise existing resources to better serve their needs.
- HEIs would provide selected students with entrepreneurial experience by providing them with practical-oriented learning and real-time experiences. This approach fosters critical thinking, problem-solving, and independent decision-making skills, enabling the young generation to adapt to the entrepreneurial culture and develop new ideas and projects. Moreover, engaging in experiential learning activities like internships, case studies, and simulations would boost students' confidence and positive attitude towards entrepreneurship.

- It is advisable that HEIs recognise students for their achievements in their innovation and entrepreneurship journeys. Providing provision for grace marks, attendance, appreciation, rewards, and recognition for students who are actively involved in entrepreneurial and innovation activities would lead to further increase in students' favourable evaluation of being entrepreneurs and would act as a motivation factor, which in turn could enforce the belief in students that the entrepreneurial activity would be a viable career path.
- HEIs can offer all students an opportunity to express their creativity and apply their entrepreneurial skills in a practical setting. The endeavour can take the form of a contest among the students that would motivate them to develop more creative ideas and concepts.
- HEIs can encourage students to take part in entrepreneurship-related activities and projects on campus with a certificate of participation or by adding grace marks or points to their formal education certificate.
- It is recommended that entrepreneurship instructors assume the role of facilitators, creating a supportive learning atmosphere that would encourage business discussions and collaborations with diverse entrepreneurs.
- HEIs can enhance mentorship programmes by connecting students with experienced business owners and industry experts, offering advice, support, and insights for entrepreneurial growth.
- It is advisable to include alumni in mentorship programmes, guest lectures, and networking events so students could gain access to their knowledge and networks.

Entrepreneurial personality traits were found to vary with regard to the stream of education. The findings of the study showed that engineering students possess higher risk-taking capacity, innovativeness, and a greater need for achievement in comparison with students from other streams. Students with a science background were found to have less risk-taking capacity and need for achievement in comparison with students in other fields of study. The innovative capacity of arts students was relatively lower in comparison with other streams of study. This points to Koe's (2016) statement that "it is no longer an effective strategy to create a uniform entrepreneurship education curriculum that serves all students from all fields of

study." Therefore, HEIs in Kerala can consider developing tailor-made curricula for entrepreneurship courses to fulfil the specific requirements of each stream of study.

The study found that students from commerce and management have a higher level of entrepreneurial intention compared with students from other streams. This can be attributed to their knowledge of entrepreneurship and business. To better help students with a science, arts, or engineering background and improve their understanding of entrepreneurship and business concepts, HEIs can consider implementing mandatory courses specifically designed for this purpose. These courses can offer fundamental business principles, knowledge of industries, and entrepreneurial abilities to students who may not have had prior exposure to these subjects. Additionally, HEIs can consider offering open courses and add-on courses in the area of entrepreneurship, giving interested students from other academic fields the chance to learn more about the subject. Thus, by extending the educational offerings in entrepreneurship, HEIs can promote an innovative culture and provide students with the skills and knowledge they need to pursue entrepreneurial ventures and would transform their ideas into successful businesses.

It was revealed that perceived entrepreneurial barriers like fear of failure, lack of funds, lack of support, and lack of competency do not directly influence entrepreneurial intention, but these barriers negatively influence self-efficacy and entrepreneurial attitude as well. In light of these findings, HEIs are advised to develop methods to better handle these barriers and strengthen students' confidence in their ability to be entrepreneurs by shaping their self-efficacy beliefs and boosting their attitude towards business. Entrepreneurial self-efficacy, attitude, and entrepreneurial motivation are marked as the most influential factors in entrepreneurial intentions. Role modelling, on-the-job training, business plan preparations, technology-based competitions, and marketing and business model games would help students overcome fear of failure and lack of competency barriers, enhancing their belief in their capacity to execute entrepreneurial behaviour.

The perceived lack of funds was found to be the greatest barrier negatively influencing higher education students' confidence in their capacity to manage and run a business in the future. Hence the study recommends the establishment of Angel funds by HEIs to support early ventures by students. Alumni can contribute significantly to financing

the fund, while the institution can take charge of fund management, student selection, and mentoring. Alumni networks are crucial to be strengthened in HEIs in Kerala, as they can serve as mentors and provide valuable guidance and funding support for student entrepreneurs.

Furthermore, HEIs are strongly recommended to collaborate with organizations that provide financial and technical support to entrepreneurs. This collaboration would facilitate the acquisition of microloans, seed money, support services for creating business plans, loans, and incubator support, making it more accessible for aspiring entrepreneurs.

Educational institutions can establish a centre for entrepreneurship growth, focusing on curriculum development, implementation, motivational presentations, and seminars. Colleges can also form memoranda of understanding with businesses, offering professional assistance and internships for students to gain hands-on experience in running a business.

The establishment of entrepreneurship clubs can foster an entrepreneurial mindset among students by allowing them to learn by doing. Integrating real-life business experiences with theory in entrepreneurial courses can support future entrepreneurial activities.

9.2.2 Recommendations to the Policy Makers

- Perceived structural support was found to be insignificant in influencing entrepreneurial intention. State laws, registration, and approval procedures for starting a business in Kerala are found not to motivate higher education students to pursue entrepreneurship. Hence, policymakers are advised to simplify bureaucratic procedures and administrative processes related to accessing funding and starting businesses, reduce paperwork, streamline approval processes, and create clear guidelines to facilitate easy and timely access to funds for student entrepreneurs.
- Lack of funds was found to be the greatest barrier influencing entrepreneurial self-efficacy and the attitude of students towards entrepreneurship, which in turn influences their entrepreneurial intention. Hence, policymakers could integrate financial literacy programmes into the curriculum, focusing on

topics such as personal finance management, budgeting, fundraising strategies, and investment principles.

- Policymakers are advised to facilitate connections between student entrepreneurs and potential investors, angel networks, and venture capitalists. Organising networking events, pitch competitions, and matchmaking platforms could help students showcase their business ideas and secure funding.

9.2.3 Recommendations to the Parents

The study found that entrepreneurial intention is positively, directly, and significantly influenced by support from family and friends. Hence, parents and family members have a significant role in inspiring and supporting their children to choose entrepreneurship as a career path. Family support provides confidence and moral encouragement, especially in a hierarchical culture like Kerala. Following are the suggestions for family members that can encourage students to consider entrepreneurship as a viable option.

- Parents can encourage children's creativity, encourage exploration, and help them think outside the box for problem-solving.
- Parents are advised to inspire their children by sharing successful entrepreneurs' stories and promoting an entrepreneurial mindset.
- Parents need to consume the idea that, entrepreneurship is also a successful career option.
- Parents are recommended to expose their children to entrepreneurship-related resources like books and magazines to improve their knowledge and skills.
- It is advisable that parents support children's independence and decision-making by assigning responsibilities and tasks.
- Parents are advised to foster a supportive environment for children to freely discuss their ideas and goals and celebrate their entrepreneurial achievements.
- Parents are advised to emphasise perseverance and resilience, teaching children that failures offer growth opportunities.

9.2.4 Recommendations to the Student Community

Students of HEIs in Kerala possess an above-average level of entrepreneurial attitude, confidence in their capacity to perform entrepreneurial tasks, and entrepreneurial drive, which would positively impact their entrepreneurial intention. The current education system emphasises theoretical or bookish knowledge. Students need improvement in gaining practical skill and knowledge in interactions, networking, and collaborations. Following recommendations could help students move beyond their intentions and start taking steps towards entrepreneurial behaviour.

- Students can enhance their entrepreneurial skills by seeking opportunities for learning through various entrepreneurial courses, workshops, self-study, and participating in events and competitions.
- Students are advised to gain practical experience through internships, projects, or entrepreneurial initiatives conducted by their educational institutions.
- Students are advised to learn from experienced entrepreneurs by seeking mentorship and advice on overcoming challenges, and building a network of positive role models can inspire and encourage entrepreneurial aspirations.
- It is suggested that project collaboration, networking with like-minded people, and establishing contacts may all result in fruitful future partnerships and collaborations.
- Students are recommended to stay updated on industry trends, market developments, and emerging technologies in entrepreneurship, seeking chances to further their education and expand their skills in order to be competitive in the highly competitive entrepreneurial scene.

9.3 Implications of the Study

9.3.1. Theoretical Implications

The study has significant theoretical implications for entrepreneurship research by examining key antecedents influencing students' entrepreneurial intentions. It expands upon existing theories, including Ajzen's (1991) Theory of Planned Behaviour, Shapero & Sokol's (1982) Entrepreneurial Event Theory, and Bandura's (1977b) Self-Efficacy Theory, and incorporates additional antecedents like entrepreneurial motivation, perceived support, and barriers. The results suggest that entrepreneurial

attitude, self-efficacy, and motivation are the key contributing factors to entrepreneurial intention among the students of HEIs in Kerala. However, all antecedents contribute to entrepreneurial intention either directly or indirectly, except the need for achievement and the perception of structural support. The findings highlight the mediating role of psychological characteristics, including entrepreneurial attitude, self-efficacy, and motivation, in shaping entrepreneurial intentions. The study also examined the moderating effect of institutional support for entrepreneurship and innovation and found no significant influence. Overall, these findings would enhance the understanding of factors influencing entrepreneurial intention among higher education students in Kerala and can add to the body of knowledge in the field of entrepreneurship research by offering empirical evidence to support or challenge existing theories and concepts.

9.3.2. Practical Implications

The findings of the study on entrepreneurial intention and its antecedents have practical implications for stakeholders involved in promoting entrepreneurship. Developing tailor-made curricula for different streams of study has significant importance in promoting entrepreneurial possibilities. This can fill some of the gaps existing in our education system and promote more diversity in entrepreneurial ideas. By designing specialised courses and educational programmes that align with the specific needs and interests of various fields of study, students can acquire the necessary knowledge, skills, and mindset to pursue entrepreneurial ventures within their respective domains. By tailoring curricula to cater to the unique requirements and opportunities within each field, educational institutions can empower students with relevant and practical entrepreneurial education.

It is evident that psychological characteristics like entrepreneurial attitude and entrepreneurial self-efficacy are important in determining one's intention to become an entrepreneur. To foster an entrepreneurial mindset, education courses could focus on enhancing entrepreneurial attitudes and developing entrepreneurial self-efficacy through experiential learning by highlighting success stories and providing mentorship. Moreover, training programmes could emphasise critical thinking, problem-solving skills, flexibility, and risk management. Besides, entrepreneurship-related skills such as opportunity identification, business planning, and risk

management could also be emphasised through hands-on training programmes and workshops. The study also highlights the significance of entrepreneurial motivation in driving entrepreneurial intention. Thus, fostering and nurturing entrepreneurial motivation is crucial to encouraging individuals to take concrete steps towards entrepreneurship. The findings suggest that it is important to consider the role of motivation when designing entrepreneurship programmes and initiatives. Therefore, efforts could be made to inspire and support individuals in developing their entrepreneurial motivation through education, counselling, and advice, as well as providing resources and opportunities. By focusing on boosting individuals' motivation to become entrepreneurs, it becomes more likely that they would translate their intentions into actual entrepreneurial actions. This can lead to increased rates of business startups, job creation, and economic growth in the long run.

The study revealed that perceived barriers have a detrimental influence on both entrepreneurial attitude and self-efficacy among students of HEIs in Kerala. The implications of the study highlight the importance of tackling perceived barriers to enhance both entrepreneurial attitudes and self-efficacy among students. By addressing and minimising perceived barriers, such as financial constraints, fear of failure, lack of support, and negative cultural norms surrounding entrepreneurship, students can overcome obstacles, build resilience, and develop problem-solving skills. This would in turn strengthens their belief in their own abilities, leading to heightened entrepreneurial self-efficacy. Ultimately, this enhanced self-efficacy positively influences their entrepreneurial intentions and increases their prospects for future success as entrepreneurs. Moreover, by reducing barriers and promoting a supportive ecosystem, students' attitudes towards entrepreneurship are positively impacted, fostering increased interest, enthusiasm, and participation in entrepreneurial pursuits. This would contribute to a thriving entrepreneurial environment in Kerala, promoting innovation and driving overall economic growth.

Although the moderating effect of institutional support for entrepreneurship and innovation was found to have no effect in the study, it is crucial to strengthen the support systems for prospective entrepreneurs. Educational institutions can collaborate with industry leaders to design and initiate programmes that can bring practical industry knowledge and current market skills to students. This can enhance

their capabilities and confidence to meet real-life scenarios. Further, educational institutions can establish incubators, innovation centres, and networking platforms to provide a supportive ecosystem for students, offering resources, mentoring programmes, and infrastructural facilities to develop entrepreneurial skills. Business incubators in educational institutions can benefit by connecting aspiring entrepreneurs, enabling market research, and transforming ideas into practical ventures. Moreover, they foster collaboration, idea exchange, and partnerships among like-minded individuals, fostering a more entrepreneurial environment. Furthermore, educational institutions can boost students' attitudes, self-efficacy, and motivation by organising networking events and forging alliances with companies and startups. These programmes can offer interaction with industry professionals, knowledge sharing, practical experience, and would strengthen the entrepreneurial mindset while ensuring access to valuable resources.

Lack of funds is a significant barrier for students in higher education institutions (HEIs) in Kerala. To support student startups, educational institutions can promote funding opportunities like grants, scholarships, and seed funding programmes. Partnering with investors, philanthropic organisations, and local business communities can secure resources for student entrepreneurs. In addition, establishing strong networks with financial institutions, venture capitalists, and angel investors would facilitate access to external funding sources. Creating platforms and events to facilitate interactions between student entrepreneurs and potential investors can bridge the funding gap and increase the chances of securing financial support for student-led ventures. By providing comprehensive education on the financial and funding procedures educational institutions can help students handle finance requirements more competently and increase their prospects of securing funding. By implementing these practical recommendations, educational institutions can effectively foster entrepreneurial intention and could create a conducive climate for entrepreneurship, allowing students to develop their entrepreneurial skills and transform their intentions into successful business ventures. This would in turn can contribute to economic growth and innovation.

9.4 Scope for Further Research

- Further studies could be taken up as its extension to a longitudinal study, which would entail re-evaluating the same set of students after a certain specific period to examine how their entrepreneurial intentions have translated into actual behaviour. This could fill the gap in intention-behaviour studies. This offers insightful information on the elements that could contribute to successful entrepreneurship and guides the development of future entrepreneurship education initiatives.
- Future studies incorporating more range of disciplines, including agriculture, health, tourism, and polytechnics can also be considered. This could provide a deeper investigation of the factors that affect entrepreneurial intention across various academic fields. Furthermore, exploring the specific contextual elements and educational contents within these overlooked streams would provide valuable insight into their distinct contribution to entrepreneurial intention and its antecedents.
- Entrepreneurial attitude and self-efficacy can be influenced by perceived support factors in addition to perceived barriers. In order to explain the relationship between perceived environmental support and entrepreneurial intention, additional research can be done in this area using entrepreneurial attitude and entrepreneurial self-efficacy as mediators.
- Future research can use moderated mediation to study individual variations in greater detail from a socio-demographic background perspective by considering factors such as gender, education level, family income, family business background, and other socio-demographics. Future researchers may create more specialised interventions that cater to the requirements of various subgroups of people and could gain a better understanding of how those subgroups would react differently to interventions.
- Further research can investigate the potential effect of additional personality traits, such as locus of control, tolerance of ambiguity, self-confidence, and other pertinent traits, on entrepreneurial attitudes and intentions. Researchers could design more effective support and promotion techniques for entrepreneurship by looking more closely at a wider variety of personality

traits and developing a more thorough grasp of the elements that influence entrepreneurial behaviour. Considering this, it may be advantageous for future research to consider additional personality traits beyond those examined in this study.

- The study recommends a more detailed enquiry on how professional mentorship as part of relational support can help in developing entrepreneurial attitudes and intentions. It is proven in the study that family and friends have a positive influence on developing entrepreneurial intentions. There still exists a gap in studies on the influence of mentorship in developing entrepreneurial culture. This can help our policymakers and support organisations develop more effective programmes for developing entrepreneurial culture among students.
- The study focused only on final-year undergraduate students and excludes postgraduate students. Further studies can also incorporate postgraduate students to cover the complete circle of the higher education spectrum. This would give a more mature data point for further studies in the area of study.
- There is further scope for research to investigate the linkage between entrepreneurial intention and pre-startup initiatives. This would help to gain a better understanding on how entrepreneurial intention manifests in actual pre-startup initiatives. Thus, there is further scope to examine this relationship, and future researchers would be able to learn more about the decision-making processes and behaviours that support entrepreneurial activities.

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APPENDIX

Entrepreneurial Intention and Antecedents Among the Students of Higher Education Institutions in Kerala

QUESTIONNAIRE

I am Sindhu George, pursuing Ph.D. as a part-time Research Scholar in St. Thomas College (Autonomous), Thrissur. My research topic is "Entrepreneurial Intention and Antecedents Among the Students of Higher Education Institutions in Kerala", for which data needs to be collected from students. I humbly request you to kindly extend your cooperation by filling the questionnaire. All information will be treated as Strictly confidential and will only be used for academic purposes. Your cooperation is highly appreciated.

Thanking You
Sindhu George

Part A- Socio-Demographic, Economic and Background Factors

Gender	Male	Female	Others

Stream of Study	Engineering	Arts	Commerce and Management	Science

Name of the College where you are studying	

FAMILY INCOME						
Approximate Family Income (per month)	Below Rs.20,000	Rs.20,000 - Rs.40,000	Rs.40,000 -Rs. 60,000	Rs.60,000- Rs. 80,000	Rs.80,000 - Rs.1,00,000	Above Rs. 1,00,000

FAMILY BUSINESS BACKGROUND		
Does anyone in your family (including close relatives) have or had a business background?	Yes	No

Have you studied any course or subject in the area of entrepreneurship?	Yes	No

Are you a member of Entrepreneurship Development Club, IEDC, IIC or any entrepreneurship-oriented club or cell?	Yes	No

Does your Institution conduct entrepreneurial support activities? (Seminars, workshops, talks, competitions, exhibitions etc)	Yes	No
If Yes, Specify the activity conducted by the college		

Do you think your college supports student innovation or entrepreneurship? (Incubation, Infrastructure, Mentoring support etc)	Yes	No
If Yes, Specify the support provided by the college		

Do you like to start own business in future?	Yes	No

Part B - Entrepreneurial Intention and Antecedents

Please rate your opinion on the basis of five-point scale;
Strongly Agree (SA) -5, Agree (A) – 4, Neutral (N)– 3, Disagree (D)- 2, Strongly Disagree (SD) – 1.

PERSONALITY TRAITS	(SD)-1	(D)-2	(N)-3	(A)-4	(SA)-5
I will do very well in difficult tasks relating to my study and work					
I will try to perform better than my friends.					

I will seek added responsibilities in job assigned to me.					
I will try hard to improve my work performance					
I believe that I am a risk taker					
I can handle uncertainty well					
I enjoy the challenge of situation that may contain risk					
I usually trust my own judgement, even if those around me don't agree with me.					
I am not scared of debt					
I like to experiment with various ways of doing the same task.					
I prefer work that requires inventive thinking					
I often surprise people with my new ideas					
I like a job which demands creativity rather than practice					

PSYCHOLOGICAL CHARACTERISTICS	(SD)-1	(D)-2	(N)-3	(A)-4	(SA)-5
Becoming an entrepreneur would bring more advantages than disadvantages					
Being an entrepreneur is attractive to me					
If I had the opportunity and resources, I would like to start a business					
Being an entrepreneur would give me great satisfaction					
Among various career options, I would rather be an entrepreneur.					
To start a business and keep it working would be easy for me					
I am prepared to start a viable business.					
I can control the creation process of a new business.					
I know the necessary practical details to start a business					
If I start a business, I have a great chance of success.					
Being an entrepreneur is interesting, because I want to be free and independent.					
Being an entrepreneur is interesting, because I have good ideas and want to realize them.					
Being an entrepreneur is interesting, because I can earn a lot of money.					

Being an entrepreneur is interesting, because I want to be successful.					
I consider, investing in my own enterprise and its management a desirable career choice.					

PERCEIVED ENVIRONMENT SUPPORT	(SD)-1	(D)-2	(N)-3	(A)-4	(SA)-5
My college educational system encourages me to develop creative ideas for being an entrepreneur.					
My college provides the necessary knowledge about entrepreneurship.					
Trainings and programmes in my college helps to develop my entrepreneurial skills and abilities.					
My college arranges seminars and workshops on entrepreneurship.					
If I decide to be an entrepreneur, my family members will support me.					
I have good network connections with industry people					
My family members will encourage me to start a business					
My family members will give me advice to start my own business.					
Kerala economy provides many opportunities for entrepreneurs.					
State laws are favourable for running a business.					
Registration and approval procedures to start a business are simple and convenient in Kerala.					
It is easy to avail loan from banks and financial institutions for starting a business.					

ENTREPRENEURIAL INTENTION	(SD)-1	(D)-2	(N)-3	(A)-4	(SA)-5
I have seriously thought of starting my own business after my studies					
I have a strong intention to start a business in future.					
I will put every effort to start and run my own business					

I prefer to be an entrepreneur rather than an employee.					
My professional goal is to become an entrepreneur					

Part C- Perceived Barriers

To what extent do you perceive that the following factors demotivate a person from becoming an entrepreneur?

1= To a small extent, 2 = To some extent, 3= To a moderate extent, 4= To a great extent, 5 = To a very great extent.

	To a small extent (1)	To some extent (2)	To a moderate extent (3)	To a great extent (4)	To a very great extent (5)
Lack of support from family and friends.					
Family pressure to have a salaried/government job					
Lack of legal assistance or counselling					
Lack of institutional support to set up a new business					
Lack of mentoring and advisory services					
Lack of business management skill.					
Lack of marketing skills					
Lack of knowledge about setting up a new business					
Lack of business experience					
Lack of initial capital					
Lack of personal savings and resources					
Difficulty to obtain Loan					
Lack of assets for collateral securities					
I fear, my business idea might fail.					
I fear, I won't be able to manage the business effectively					
Fear of losing money					
Fear of hard competition					

Please give your Remarks and suggestions.

THANK YOU FOR YOUR COOPERATION