

THE EFFECT OF IMPLEMENTATION OF KERALA STARTUP MISSION SCHEMES IN DIFFERENT COLLEGES IN KERALA

Project Report

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Under the guidance of

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In partial fulfilment of requirements for award of the degree of

Bachelor of Commerce



**ST. TERESA'S COLLEGE (AUTONOMOUS), ERNAKULAM
COLLEGE WITH POTENTIAL FOR EXCELLENCE**

Nationally Re-Accredited at 'A++' Level (Fourth Cycle)

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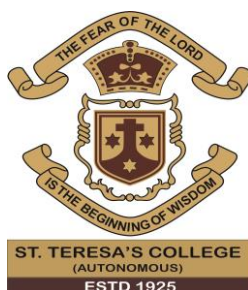
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CERTIFICATE

This is to certify that the project report titled "**THE EFFECT OF IMPLEMENTATION OF KERALA STARTUP MISSION SCHEMES IN DIFFERENT COLLEGES IN KERALA**" submitted by **ADONA MATHAI, ADRAJA SHAJI and AKSHAYA S AJAYAKUMAR** towards partial fulfilment of the requirements for the award of degree of **Bachelor of Commerce** is a record of bonafide work carried out by them during the academic year 2022-23.

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Place: Ernakulam

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DECLARATION

We, Adona Mathai, Adraja Shaji and Akshaya S Ajayakumar, do hereby declare that this dissertation entitled, "**THE EFFECT OF IMPLEMENTATION OF KERALA STARTUP MISSION SCHEMES IN DIFFERENT COLLEGES IN KERALA**" has been prepared by us under the guidance of **Dr. Mary Sruthy Melbin**, Assistant Professor, Department of commerce, St Teresa's College, Ernakulam.

We also declare that this dissertation has not been submitted by us fully or partly for the award of any Degree, Diploma, Title or Recognition before.

Place: Ernakulam.

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Date:

ADRAJA SHAJI

AKSHAYA S AJAYAKUMAR

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SUMMARY, FINDINGS, RECOMMENDATIONS
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APPENDIX

QUESTIONNAIRE

QUESTIONNAIRE

1.Name:

2.Age:

3.Gender:

- Male
- Female
- Prefer not to say
- Other:

4.Educational background:

- Graduation
- Post graduation
- Professional
- Other:

5.Employment Status:

- Student
- Mentor
- Other:

6.Name of the college:

7.District:

8.Are you aware of the Kerala Startup Mission?

- Yes
- No

9.Do you know about the various incentives and schemes provided by the KSUM?

- Yes
- No

10.If yes, which are they?

- Multiplier Grants Scheme (MGS)
- Technology Incubation and Development of Entrepreneurs (TIDE)
- Atal Incubation Centres (AIC)
- Promoting Innovations in Individuals Startups and MSMEs (PRISM)
- A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE)
- Industry Relevant (RSD)
- Entrepreneurial and Managerial Development of SMEs through incubators
- NewGen IEDC
- Other:

11.Do you make use of them?

- Yes
- No

12. Does your institution make use of them?

- Yes
- No

13.Do you think they are useful to budding entrepreneurs?

- Yes
- No

14.What kind of assistance do you think these schemes provide to them?

- Financial
- Technical
- Research Assistance
- Infrastructure
- Training and Development
- Mentorship
- Incubation
- All of the above

15.Do you know anyone who has become successful using these schemes?

- Yes
- No
- Maybe

16.What are the various barriers your institution faced while implementing them?

- Financial
- Technical
- Infrastructure.
- Lack of training
- Lack of mentorship
- Other:

17.What were the corrective measures used?

- Financial Assistance
- Technical Assistance
- Infrastructure Facilities
- Providing Training
- Providing mentorship
- Other:

18.Do you think that KSUM has brought cultural changes among the youth?

- Yes
- No
- Maybe

19.As a whole do you think these schemes are successful and are serving their purpose?

- Yes
- No
- Maybe

20.What are the various innovation cells active in your institution?

- Institution Innovation Council (IIC)
- Innovation and Entrepreneurship Development Centre (IEDC)
- Entrepreneurship Development (ED) Club
- Institute Of Electrical and Electronic Engineers (IEEE)
- Tinkerhub
- Hackclub
- Other:

21.What category of people do you think makes use of these schemes the most?

- Students
- Staff
- Faculty
- Other

22.How effective do you think these cells are in promoting entrepreneurship in your institution?

- Not Effective
- Least Effective
- Somewhat Effective
- Effective
- Very Effective

23.How effective do you think these schemes are in supporting entrepreneurs?

- Not Effective
- Least Effective
- Somewhat Effective
- Effective
- Very Effective

24.How successful do you think KSUM is?

- Not Successful
- Least Successful
- Somewhat Successful
- Successful
- Very Successful

25.What are your perspectives on Kerala Startup Mission?

1.1. Introduction

Kerala Startup Mission (KSUM) is the central agency of the Government of Kerala for entrepreneurship development and incubation activities in Kerala, India. KSUM was primarily founded to undertake the planning, establishment, and management of the technology business incubator (TBI), a startup accelerator in Kerala, to promote technology-based entrepreneurship activities, and to create the infrastructure and environment required to support high-technology-based businesses.

Additional goals of KSUM include:

- Coordinating the functions of other incubators in the state
- Strengthening the entrepreneurship development activities of the state government
- Promoting knowledge-driven and technology-based startup ventures by students, faculties, and local entrepreneurs
- Setting up Research and Development facilities
- Encouraging the formation of Innovation and Entrepreneurship Development Cells (IEDCs) and technoparks in academic institutions, and capacity building programmes for human resources.

The pre-incubation stage mainly focuses on ideation of a potentially innovative idea. KSUM supports entrepreneurs in developing technology-based business ventures, for example startups with high technology products. A startup's early development can usually be divided into three stages, preincubation (3–6 months), incubation (6–12 months) and an accelerator stage (3–6 months).

During the incubation stage, startup companies begin product development and prepare themselves for marketing. KSUM provides the startups with modular space, any applicable grants or funding, and mentorship. They also provide services such as entrepreneur training and workshops. In the accelerator stage KSUM offers a business tool box and a business advisory service, resembling traditional management consulting or mentoring. KSUM will assist the startup in presentations to venture capitalists and investors.

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or mentoring. KSUM will assist the startup in presentations to venture capitalists and investors.

1.2 Significance of the Study

The Kerala StartUp Mission is the nodal agency of the government of Kerala for promoting entrepreneurship in the state. Students are the focal point and the future of the nation. Various schemes are provided by the Start Up Mission so as to aid and encourage them as well as others in taking up entrepreneurship as their future endeavour and thus contribute towards the economic development of the nation. To achieve this goal KSUM mainly works at the college level through various cells and clubs like IEDC, ED club etc. This study tries to understand them in detail focusing on the major colleges in Ernakulam and the nearby districts Kottayam and Alappuzha and to evaluate their performance in the past few years and to see how successful these schemes and programmes were in serving the purpose.

1.3 Statement of the Problem

The Kerala Startup Mission (KSUM) is the nodal agency of the government of Kerala for promoting entrepreneurship in the state. It was founded in 2006 by the industry Technology business incubators. Headquarters is Thiruvananthapuram, Kerala .The main aim or goal of KSUM is to promote technology based entrepreneurship activities and to create the infrastructure and ecosystem required to support high end technology based startups.

The purpose of this study is to explore the implementation of KSUM schemes in different colleges. Mainly focused on colleges in 3 different districts. Districts: Kottayam, Ernakulam and Alappuzha. This study also intends to navigate how students make use of these schemes and how many of them are successful in that attempt .

1.4 Objectives

The main objective is to explore the implementation of KSUM schemes in different colleges. The specific objectives are:

- To analyse the effect of implementation of KSUM schemes in colleges.
- To analyse the success of innovation cells in colleges.
- To analyse the success of KSUM as a whole.

1.5 Research Methodology and Data Collection

Research Methodology

- **Research design**

The study is diagnostic in nature. Diagnostic research design examines the elements posing challenges to businesses and customers. The methodology strives to explore the reason behind an issue and find solutions to solve it. Furthermore, this research design tries to solve issues in a structured form that follows three phases - inception, diagnostic, and solution.

Collection of data

Primary data and secondary data will be used for this study.

- **Primary data**

The primary data is collected by preparing a questionnaire and circulating them through online platforms such as social media and e-mail. Telephone conversations were also made. The respondents were student core team members and faculty from various target institutions.

Secondary Data

Secondary data were collected from the official website of KSUM, journals and other online publications. Online newspapers and past project reports on KSUM were also used. The KSUM handbook was also a major secondary source of information.

- **Sampling Design**

Convenient sampling method is used to select the samples from the population.

- **Population**

36 respondents from 30 colleges of Kottayam, Ernakulam and Alappuzha.

- **Sample size**

A sample size of 36 will be taken.

- **Tools for analysis**

The collected data was analysed with the help of statistical tools like percentages. Tabular and graphical presentation were also used. Graphical presentations include bar diagrams and pie charts.

1.6 Scope of Study

India has recently emerged as the most populous country in the world. Along with population comes the burden of unemployment and lack of even the most basic resources. But on the other hand we have access to the biggest advantage of skilled and

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intelligent human resources. The need that arises here is to train and support this manpower into self reliant and productive masses. For this entrepreneurship plays a major role. The transformation from job seekers to job givers can give a boost to the economy and minimise a lot of economic problems. This is where KSUM comes into action. This study throws light onto the support given by the Startup mission for this transformation and helps us in understanding the attitude of the educational institutions towards promotion of entrepreneurship among the youth. The study will also cover the functioning of various entrepreneurial clubs and cells across the colleges. The scope of the study is restricted to 30 colleges in Alappuzha, Ernakulam and Kottayam districts wherein the opinion of 36 individuals (including students and faculties) were studied. Further the study also involves an analysis of the respondent's perspective on the KSUM, its incentives and schemes, assistance and barriers etc. The scope is also limited to certain colleges especially arts, science and professional colleges.

1.7 Limitations of the Study

- Only 30 colleges were covered due to time constraints and the geographical area was restricted to 3 districts mainly Kottayam, Ernakulam and Alappuzha.
- The respondents were not cooperative enough and were reluctant in filling the questionnaire.
- The study is based on information collected from various individuals. Hence there may be sampling errors and there are chances that the information might be biased.

1.8 Keywords

- **KSUM** the central agency of the Government of Kerala for entrepreneurship development and incubation activities in Kerala, India. Start Up embark on a venture or undertaking, especially a commercial one.
- **Business incubator** is an organisation that helps start Up companies and individual entrepreneurs to develop their businesses by providing a full scale range of services starting with management training and office space and ending with venture capital financing.
- **Schemes** a large-scale systematic plan or arrangement for attaining a particular object or putting a particular idea into effect.
- **Incentives** a payment or concession to stimulate greater output or investment.

1.9 Chapterisation

Chapter 1- Introduction

This chapter gives a brief introduction about the topic, its significance in the research area, problem statement, methodology adopted, objectives to be achieved and limitations of the study

Chapter 2- Literature review

This chapter deals with the literature relating to the topic under study. It also includes analysis of secondary data relating to topic under study.

Chapter 3 – Theoretical framework

This chapter introduces the theory of the research topic.

Chapter 4- Data analysis and interpretation

It includes analysis and interpretation of primary data collected based on variables related to the study.

Chapter 5- Summary, findings and conclusions

It deals with a brief summary of what the researcher has found out from the study and the final conclusion and recommendations.

2.1 Introduction

Kerala Startup Mission plays an important role in the development of entrepreneurship culture in the colleges in Kerala. Starting a new business is one of the major indicators showing the economic growth of a country. Startups require all kinds of help and support for its implementation as well as growth. KSUM has developed various programmes to help businesses by providing an excellent opportunity for the growth of entrepreneurship, innovation and investment in all their stages. In this chapter an attempt is made to review some of the existing literature.

2.2 Review of Literature

P Noufal and Dr. KV Ramachandran (2017) in their paper “Entrepreneurship Development and the Prospects of Startups in Kerala’s Industrial Economy: An Overview” says that the driving forces of social development and economic growth of any country are entrepreneurship, skills and knowledge. This paper further attempts to analyse the business startups as well as entrepreneurship development in Kerala.

“The Hindu” (17 December 2022) reports that the KSUM has proposed community innovation centres to pick out and promote rural innovators and bridge the gulf that leave the startup ecosystem of Kerala inaccessible to them. Mr. Ambika said “The innovators need to be convinced that technology is not about IT, and that even their everyday work may qualify as technology.” The idea is to set up centres in all 140 assembly constituencies of Kerala starting with 10 centres on a pilot basis.

“The Economic Times” (16 December 2022) states that Kerala has immense potential to emerge as a global startup destination according to KSUM. The KSUM initiatives make the state ‘The Startup powerhouse of India’. We have recognised the importance of India as a mature ecosystem as well as a powerhouse in its own terms said Brunsehiug, council general of Switzerland and CEO of Swissnex in India.

Jyotsana Thomas and Georgee KI in their research “A study on the incubation centres and startups : A study on Kerala’s Startup ecosystem” recognizes the importance of innovation and technology upgradation through startups in the economic development of the country. Their major objectives are to study the facilities, role and the impact of incubators on startup units and to examine the opinion of incubation managers on various aspects related to their incubation centres and Kerala startup ecosystem. The study reveals that the startup founders are satisfied with the existing incubation centre

facilities. Hence for creating a conducive startup ecosystem it's better to improve the existing facilities and also to establish more incubation centres to accommodate more startups.

“The Economic Times” (5 September 2022) reports that the goal of KSUM, the state nodal agency is to create the ecosystem and infrastructure required to support high end technology based startup businesses and to promote them. Over the years, KSUM has been relentlessly working to help startups overcome competition and make their businesses viable. Since 2017 it has provided grants of over 25 crores to new and old startups to strengthen the startup environment in Kerala. The KSUM is further expanding to provide startups with wonderful opportunities for sustainability and growth. The major focus areas are agritech, fintech, healthtech, hardware, IOT and SAAS.

For turning students into entrepreneurs and innovators, KSUM is developing an ecosystem in schools. They started providing electronic kits in association with KITE (Kerala Infrastructure and Technology Education) to identify and nurture students' innovative skills and to guide them in entrepreneurship, an innovative program is also implemented. To sharpen students' innovative and entrepreneurship skills, Atal tinkering labs are also functioning in schools. Atal tinkering lab is a Central Government-aided project and an initiative of the NITI Aayog which aims at fostering creativity and imagination as well as inculcating skills such as design mindset, computational thinking, physical computing and more in young minds.

From The Hindu Bureau, Mentor Inspired Networking on Demand (MIND), the bimonthly programme focuses on various aspects of entrepreneurship including business strategy and development, fundraising, sales, and marketing of human resources. KSUM has made a new initiative that provides nascent companies opportunities to access experienced and successful mentors around the world to gain experience, expertise and knowledge. The programme offers a chance to build long term relationships with mentors to guide and support them. The primary objective is to bridge the gap between start-ups and mentors. Startups can get high quality advice from experienced professionals as it is a platform for mentorship and networking.

Today, KSUM plays an instrumental role in fast-tracking startup growth in the state through a number of initiatives from development of infrastructure, academic interventions, partnerships with research and development institutions, industry associations, and implementing the Technology Startup Policy. In many ways, KSUM

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has been instrumental in creating a congenial entrepreneurial ecosystem in the state and nurturing its growth. The Kerala Technology Startup policy is helping with this. As the nodal agency implementing the policy, KSUM has come up with various schemes to make it more effective: incubation programmes, infrastructure creation, youth entrepreneurship development programmes etc. The various schemes under KSUM covers a broad range of youth entrepreneurship promotional activities connecting the ecosystem in three levels – schools, colleges and startups. Specifically speaking about the activities in colleges, KSUM is setting up Innovation Entrepreneur Development Centres (IEDCs) in a number of colleges across the state. IEDCs are the cells with small incubators who have innovative ideas and can pursue entrepreneurship along with their studies. Ideathons, hackathons, business modelling sessions are also conducted.

Higher Education Institutions is a guiding framework, which enables the institute to actively engage students, staff and faculty in innovation and entrepreneurship activities. All HEIs created facilities within the organisation for supporting the pre-incubation like IIC , IEDC , Innovation cell etc and these facilities are accessible 24 × 7 to students, staff and faculties. Despite the ownership there is a five member committee consisting of two faculties, two institute's alumni and one legal advisor with experience in IPR. IPR cell or incubation cell is the coordinator and facilitator for providing service to staff, students and faculties.

Faculty start-up is an allocation awarded to new faculty hired in universities for better coordination of entrepreneurial activities. Norms for faculty to do start-ups should be created by institutes. The faculty must be clearly separate and distinguish on doing research at the institute from the work conducted at startups. The faculty must not accept gifts for start-up, not involve staff or research other staff of the institute in activities at the startups.

Eric Ries, the creator of the Lean Start-up movement. defines a start-up as a newly formed company, the purpose of which is to develop new. usually innovative products or services in uncertain circumstances. If it satisfies a new need. present in a broader area or even globally, it also has great growth potential. Start-up entrepreneurship is crucial because of innovations, new jobs and bringing competitive dynamics into the business environment. A feature of these companies is that they first test different possible business models in order to find the right one. But for this, they need a suitably developed support start-up ecosystem.

Al-Mubaraki and Busler indicated that innovation programs can help young firms to survive and grow during their start-up years, and can play a key role in the economic development of a community or region. In developing countries. Business incubators are particularly valuable in helping to develop local economies. promote technology transfer. create new enterprises, and generate jobs.

A business incubator (Business and Innovation Centre) is a physical facility aimed at promoting economic development of its community by supporting start-up companies and their business development. Business incubator programs. often called "new entrepreneur creation projects" help extend new entrepreneurs and support them to start businesses and be better able to survive on a longer-term sustainable basis. Typical business incubators include small entrepreneurs that want to develop new businesses and those who would like to expand their talent and ideas or engage in the transfer of technology

Al-Mubaraki and Schrödl evaluated aspects of innovation centres or business incubation that can be used to measure the effectiveness of business incubation. Their study used a multi-method approach combining desk-research. interviews. and a multi-case study of five incubator organisations in the GCC member states. From these findings, a model for measuring the effectiveness of business incubation in a standardised way was developed. The developed model supports the work of incubator managers, policy makers, researchers, practitioners, stakeholders, and government parties for effective execution of business incubation enterprises. The researchers were able to determine the effectiveness of business incubators (or innovation centres) individually and as an industry using four dimensions for gauging the health of programs: (1) the number of businesses graduated over a period of time, (2) the number of businesses still in business over a period of time. jobs created by incubator clients, and (3) salaries paid by incubator clients.

Al-Mubaraki et al. Provide useful implementation guidelines to both academics and practitioners involved with incubators worldwide. They focused on six key success indicators and pointed out proposed incubators models in the years to come. The design methodology is based on surveys and interviews of 100 selected incubators. The research findings indicate the similarities of incubator programs that are (1) creating jobs. (2) enhancing the community's entrepreneurial climate, and (3) providing tangible services. Differences noted were (1) Incubator's type, (2) Financial status, and (3) Incubator's age

The main idea of business incubators is to create a support environment for start-up and emerging companies, thereby contributing to the creation of new local jobs. economic development and technology transfer (Peters et al., 2004). Thus, the main objective of a business incubator is to support entrepreneurs to create successful start-ups within a reasonable period of time. So, business incubators "offer three categories of services: infrastructure, coaching, and networking" (Kebbi and Valliere, 2016, p.371). Different studies exist about the role of business incubators in entrepreneurship process and how they are effective (Albort-Morant and Oghazi.2015: Peters et al2004: Kebbi and Valliere. 2016) but the study about which goals they have and which offers they provide and moreover networking part of business incubator in the term of start-up is missed.

3.1 Introduction

Entrepreneurship can be defined as the process of creating something new of value by putting in time and effort and also by assuming the related financial, social and psychic risk thus receiving the resulting rewards in terms of money, independence and personal satisfaction. An entrepreneur is a person who takes risks and creates something new. The word entrepreneur is derived from the French word 'entreprendre' meaning 'to undertake'.

3.2 Stages of entrepreneurial process

- Conducting an analysis on the availability of the opportunity.
- Developing the plan.
- Setting up the company.
- Deciding the sources of finance and acquiring them.

3.3 Stages of development in entrepreneurial process

The venture's development stages can be summarised as below:

- Seed- Stage
- Start-Up
- Early Growth
- Establishment
- Corporate

3.4 Role of entrepreneurs in an economy

- Generation of Employment
- Capital Formation
- Improvement of per capita income
- Balanced economic growth
- Resource mobilisation

- Improving the nation's self reliance capacity
- Improving the standard of living of the people
- Driving innovation
- Motivating people to take up similar ventures
- Rural and Urban development
- Developing new products and processes useful for the society

3.5 Functions of an entrepreneur

The functions of an entrepreneur are as follows:

1. Initiating and leading business activities

Initiating and growing a business to its maturity is a traditional role for entrepreneurs. As societies progress, people regularly develop new needs that an entrepreneur can satisfy with their business ideas. This business idea can provide either services or products that would benefit the community. Identifying a gap and planning how to address it helps entrepreneurs initiate new business ventures at any opportunity. They must understand every aspect of the business, including making critical decisions, setting a good example for employees and resolving conflicts.

2. Allocating employees' duties

From the onset of a business, an entrepreneur needs to allocate their employees responsibilities effectively. Hiring qualified and competent staff requires a great deal of care, especially for small businesses. An entrepreneur is also responsible for organising a business structure and environment that helps each employee maximise their potential. The success of a business venture often relies on its employees' contributions. Therefore, defining your team's role and responsibilities is a vital entrepreneurial role to exercise for maximum business productivity.

3. Identifying business opportunities

Entrepreneurs regularly seek out opportunities that can grow or boost sales for their business. They identify which product to add and which market to expand to. An entrepreneur should listen to their potential clients and find opportunities to develop

tailored products that cater to their clients' needs. By doing a little competitive analysis, an entrepreneur can find out what other businesses in the area are doing and how they are succeeding. This process might include a physical survey or reading publications about trends in a specific industry. Talking to customers also makes it easier to identify their frustrations and experiences, which an entrepreneur can use to improve their business.

4. Creating and sharing wealth

Starting a business involves a network of activities. Whether an entrepreneur runs a small business operator or an established company, many spend money from savings and gain capital from family, friends or banks when they start out. Investors often look forward to investing in small but potentially viable businesses, while lenders grow their own businesses by earning interest from capital extended to entrepreneurs. The cycle of such fund mobilisation can help the local economy build wealth

5. Forecasting business changes

Most businesses face some kind of uncertainty as they develop. An entrepreneur's role in this aspect is to anticipate any challenges and address them as quickly as possible. Forecasting is important because it helps the entrepreneur make decisions such as reducing or increasing stock for a product, procuring updated software or making credit acquisition decisions.

6. Creating jobs

When an entrepreneur sets up or expands a business, they decide which employees they need to hire. Entrepreneurs consider factors such as who oversees processes and who can fulfil administrative tasks. Even when an entrepreneur does not directly employ staff to work in a physical location, they may still need to consider people who can work as a service provider, a software salesperson or a programmer.

7. Improving the standard of living

Economies are used to measure living standards. These living standards can improve through the developments or services that an entrepreneur brings through their business. Innovations that can reduce the cost of creating a product also reduces the product's price while allowing the business to maintain the same profits, which allows customers' to spend less money. When people save money by acquiring a product at a cheaper price,

they can use the savings for other purposes. This is an indication of an improved standard of living.

8. Taking up and reducing business risk

When entrepreneurs start a business, they spend time analysing and researching to make sure their ideas succeed. An entrepreneur's role is to eliminate the risk of business failure by taking measures to reduce as much risk as possible. Such measures include bringing competent and committed employees in the company, obtaining insurance coverage for the most risk-prone segments of the business etc.

9. Building strategic partnerships

An entrepreneur must create a business environment where partnerships can thrive, which helps their business succeed. Generating and closing new business leads is an essential entrepreneurial skill. An entrepreneur should maximise their marketing capacity, spend time talking to qualified potential partners and regularly call every prospect. Creating strategic partnerships can help entrepreneurs make better decisions for their company and even obtain more capital.

10. Digitizing business operation

Technology evolves so quickly, hence a business product or service can be rendered obsolete due to new technology's entry. An entrepreneur is responsible for continuously updating the technology they use in their business processes or activities. Entrepreneur roles regarding technology include:

- Researching the most recent methods of reducing production cost
- Disposing of equipment that is not improving profitability
- Organising training for staff to help them familiarise themselves with the latest technological programs in the market to improve efficiency.
- Using the most popular and recent marketing medium to ensure you reach your target group.

Apparently, In the modern context the functions of an entrepreneur can be summarised as follows:

1. Innovation

2. Risk-Taking

3. Organization and management of businesses to have leadership and control over it.

3.6 Qualities required to become an entrepreneur

1. Initiative

It is the ability to be resourceful and work without being told what to do. It requires resilience and determination. Following statements were included in the research instrument as measure of initiative,

- I wait for direction from others before taking action.
- I look for things that need to be done.
- I take action before it is clear that I must.

2. Persistence

It is the competency to act to overcome obstacles that get in the way of reaching goals. The statements are,

- I try several times to get people to do what I would like them to do.
- When faced with a major difficulty, I quickly go on to other things.
- I try several ways to overcome things that get in the way of reaching goals.
- When faced with a difficult problem, I spend a lot of time trying to find a solution.

3. Sees and Acts on Opportunities

The statements are,

- I like challenges and new opportunities.
- I take advantage of opportunities that arise.
- I notice opportunities to do new things.
- I prefer activities that I know well and with which I'm comfortable.

4. Commitment to work contract

Places the highest priority on getting a job completed. The statements are,

- I give a lot of effort to my work.
- I do not let my work interfere with my family or personal life.
- I do whatever it takes to complete a job.
- I work long hours and make personal sacrifices to complete my job on time.

5. Concern for high quality work

Acts to do things that meet or beat existing standards of excellence. The statements are,

- It bothers me when things are not done very well.
- I want my company to be the best of its type.
- My own work is better than that of other people I work with.
- It's important to me to do high quality work.

6. Self confidence

Has a strong belief in self and own abilities. The statements are,

- I feel confident that I will succeed at whatever I try to do.
- I do things that are risky.
- I stick with my decisions even if others disagree with me.
- When trying something difficult or challenging , I feel confident that I will succeed.

7. Use of influence strategies

Uses calculated strategies to affect others. The statements are,

- I develop strategies to influence others.
- I get important people to help me accomplish my goals.
- In order to reach my goals, I think of solutions that benefit everyone involved in a problem.
- I do not spend much time thinking about how to influence others.

8. Systematic planning

Develops and uses logical, step by step plans to reach goals. The statements are,

- I plan a large project by breaking it down into smaller tasks .
- I deal with problems as they arise rather than spend time trying to anticipate them.
- I think about both the advantages and disadvantages of different ways of accomplishing things.

9. Information seeking

It is the competency to take action on one's own to get information to help or reach the objectives or clarify the problems. The statements are,

- I go to several sources to get the information to help with the task or the project.
- When working on a project for someone I ask many questions to be sure I understand what that person wants.
- When starting a new task or project, I gather a great deal of information.
- I seek advice from people who know a lot about the problem or task I'm working with.

10.Efficiency orientation

Find ways to do things faster or with fewer resources or at a lower cost. The statements are,

- I find ways to do things faster.
- I find ways to do things at less cost.
- It bothers me when my time is wasted.
- I get the most I can out of the money I have, to accomplish a project or task.

11.Problem solving

Identifies new and potentially unique ideas to reach goals. The statements are,

- I think of unusual solutions to problems.
- I think of many new ideas.
- I think of many ways to solve problems.
- If one approach to a problem doesn't work , I think of another approach.

12.Persuasion

Successfully persuades others. The statements are,

- I get others to support my recommendations.
- I convince others of my ideas.
- I'm very persuasive with others.
- I get others to see how I will be able to accomplish what I set out to do.

13.Assertiveness

Confronts problems and issues with others directly. The statements are,

- I feel bad about others when they have not performed as expected.
- When I disagree with others, I let them know.
- If I'm angry or upset with someone, I tell that person.
- It is difficult for me to order people to do things.

3.7 Risks involved in entrepreneurship

1. Financial risk

The entrepreneur has to invest money in the enterprise on the expectation of getting in return sufficient profits along with the investment. He may get an attractive income or he may get only limited income. Sometimes he might incur losses too.

2. Personal risk

Starting a new venture uses much of the entrepreneur's energy and time. He has to sacrifice the pleasures attached to family and social life.

3. Career risk

This risk may be caused by a number of reasons such as leaving a successful career to start a new business or the potential of failure causing damage to professional reputation.

4. Psychological risk

Psychological risk is the mental agonies an entrepreneur bears while organising and running a business venture. Some entrepreneurs who have suffered financial catastrophes find it difficult to bounce back.

3.8 Factors affecting entrepreneurial growth

➤ Personal factors

The presence of individuals with the initiative, foresight, organising and managerial competency are the factors which influence the supply of entrepreneurship.

Some personality factors that contribute to entrepreneurship development are as follows:

1.Independence: An essential personality factor which influences entrepreneurship. Instead of waiting for chances or opportunities from others, an entrepreneur has to work out his own plans, to search and to explore the resources and experiences and to use the inner urge to make the enterprise into a successful venture

2.Personality: A person with his motives, skills and style is what an entrepreneurial personality comprises of. To develop entrepreneurship, impressive personality or unemployment and dissatisfaction with existing jobs or occupation. To work with

managers, engineers, labourers, officers, investors, government officers and ministers the entrepreneur requires these qualities.

3.Compulsion: There are some reasons that compel people to become entrepreneurs. They include Unemployment or dissatisfaction with existing jobs or occupations. A large number of technically qualified people after gaining initial experience and confidence and not being satisfied by their growth in the profession have a compulsive reason to try entrepreneurship and to use technical or professional knowledge and skills to put the idle funds to use.

➤ **Social factors**

The sociological and environmental factors during childhood or at school, personal mobility, occupation and support from parents makes a man into an entrepreneur.

The social factors include:

1.Social marginability: Individuals or groups on the perimeter of a given social system or between two social systems provide the personnel to assume the entrepreneurial roles. Social marginability likely to promote entrepreneurship are largely determined by two factors, namely the legitimacy of entrepreneurship and social mobility.

2.Family, role models and association with similar types of individuals: If an individual has a supportive family, he or she is more likely to become an entrepreneur. Similarly, if an individual has role models who have been successful in entrepreneurship, certainly, he may be motivated to start ventures. If a person is in association with entrepreneurs, this may add to his/her desire of setting up a new venture.

3.Cast system: Certain religions and casts encourage the growth of entrepreneurial talent. Some religious communities like Parsees, marwaris, and sindhis seem to have an affinity for entrepreneurial activity.

4.Occupation: Those born in rich families with silver spoons in their mouth have not only an advantage of having financial resources for carrying out business but also learn the business skills by continuous interactions and contacts with parents, customers, employees and visitors in family shops, offices, and homes.

5.Educational and technical qualifications: Education is the best means of developing man's resourcefulness which encompasses different dimensions of entrepreneurship. It

may be expected that the high level of education may enable the entrepreneurs to exercise their entrepreneurial talents more efficiently and effectively.

6. Social status: Every human being aspires for a high social status and once he achieves a reasonable level, his aspirations and desires for it starts getting multiplied. People work hard to maintain their status as it also contributes to their entrepreneurial growth.

7. Social responsibility: It is the obligation to the society in which the business enterprise operates. An entrepreneur generates employment for others besides helping himself.

8. Legitimacy of entrepreneurship : The system of values and norms within a socio-cultural setting is responsible for the emergence of entrepreneurship. The degree of approval and disapproval granted to entrepreneurial behaviour will also influence its emergence.

➤ **Cultural factors**

The important cultural factors influencing entrepreneurial growth are briefly explained as follows:

1. Culture: Culture is closely related with accepted values and human behaviour.

2. Religious belief: According to Max Weber, entrepreneurship is a function of religious belief and the impact of religion shapes the entrepreneurial culture. He emphasised that the entrepreneurial energies are exogenous supplied by means of religious belief.

3. Minority groups: Hoselitz explained that the supply of entrepreneurship is governed by cultural factors, and culturally minority groups are the spark plugs of entrepreneurial and economic development. Minority groups like the Jews and Greeks in Medieval Europe, the Lebanese in West Africa, the Indians in East Africa have important roles in promoting economic development.

4. Spirit of capitalism: It guides the entrepreneur to engage in activities that can bring more and more profits. The profit motive character coupled with the attitude towards acquisition of money urges the individual to start a new venture.

➤ **Economic factors**

Economic factors also influence the growth of entrepreneurship.

1. Infrastructural facilities: Entrepreneurship development requires certain basic infrastructure like power, transportation, communication, technical information etc. these provide external economies and improve the efficiency of investments by

entrepreneurs. These infrastructural facilities are scarce in less developed countries. The entrepreneurs themselves have to procure these facilities at their own cost. They have to obtain these facilities at higher costs. This will greatly discourage entrepreneurship development.

2. Financial resources: Finance is the life blood of business activity. Capital is required to obtain materials, machinery, equipment etc. and to undertake innovation capital is regarded as lubricant to the process of production, the lack of financial resources discourages the youth and potential entrepreneurs to start new ventures hence the need for fixed and working capital should be adequately met in order to encourage the new entrepreneurs to come forward.

3. Availability of material and know-how: Entrepreneurship is encouraged only if there is adequate supply of materials and know-how. Easy availability of materials attracts more individuals towards entrepreneurship. Technical know-how is essential for innovation. With technical knowledge, men discover more sophisticated techniques of production.

4. Labour conditions: The quality rather than quantity of labour is another factor which influences the emergence and growth of entrepreneurship. The availability of cheap labour positively affects entrepreneurship. Labour problem can be solved not by capital intensive technologies but by increasing their mobility, by offering them facilities, incentives and concessions in every remote corner of the country.

5. Market: The size and composition of the market influence entrepreneurship in their own ways. Practically, monopoly in a particular product in a market becomes more influential for entrepreneurship than a competitive market.

6. Support system: Ability, initiative and support systems include financial and commercial institutions, research, training, consultancy services, ancillary industry etc.

7. Government policy: The socio-political and economic policies of the government inhibit or foster entrepreneurial growth. Land and factory sheds at concessional rates, adequate sources of power, supply of materials and other physical facilities should be provided by the government to facilitate the setting up of new enterprises. The government has a dominant role to play in the development of backward regions with a view to attain a balanced regional development.

➤ **Psychological factors**

Inspiration for achievement prepares an entrepreneur to set higher goals and achieve them. The important psychological factors influencing entrepreneurial growth may be outlined as below:

1.Need for achievement: Need for achievement means the drive to achieve a goal. If an individual has a need for achievement, he will have the drive to become a successful entrepreneur.

2.Personal motives: These have been found to be one of the crucial factors responsible for entrepreneurship amongst individuals. Bill Gates dreamt that one day he would become the richest person. His dream became a reality later.

3.Recognition: Many people become successful entrepreneurs just to get recognition from others.

4.Need for authority: 'Need for authority' will inspire men to work. When they become entrepreneurs, they can exercise authority over managers, employees etc.

3.9 Barriers to Entrepreneurship

Entrepreneurial development is very slow in under developed and developing countries. This is due to the presence of several factors. These barriers to entrepreneurship are classified into three as follows:

➤ **Environmental Barriers**

1.Non-availability of raw materials: Non-availability of materials especially during peak season is one of the obstacles inhibiting entrepreneurship. This leads to competition for raw materials.

2.Lack of skilled labour: Labour is the most important resource in any organisation. Unfortunately, desired manpower may not be available in an organisation. This is either due to the lack of skilled labour or due to lack of committed or loyal employees.

3.Lack of good machinery: Good machines are required for the production of goods. Because of rapid technological developments, machines become obsolete very soon. Small entrepreneurs find it difficult to get large amounts of cash for installing modern machinery.

4.Lack of infrastructure: Lack of infrastructure facilities is a major barrier to the growth of entrepreneurship particularly in under developed and developing economies.

5.Lack of funds: There are various methods by which an entrepreneur arranges for funds like own savings, borrowings from friends and relatives, banks and other financial institutions etc. Many people who are potential do not enter into entrepreneurial activities because of lack of funds.

6.Other Environmental barriers: Lack of business education, lack of motivation from government, corruption in administration, high cost of production etc. are the other environmental barriers that inhibit the growth of entrepreneurship in underdeveloped countries.

➤ **Personal Barriers**

Personal barriers are those barriers that are caused by emotional blocks of an individual. Some of the personal barriers may be outlined as below:

1. Unwillingness to invest money: Even though people have money, still they do not come into entrepreneurship. They are not willing to take the risk of investing money in business

2.Lack of confidence: Many people think that they lack what it takes to become an entrepreneur. They feel that they could not master all the skills. Thus most people are reluctant to become entrepreneurs.

3.Lack of motivation: When an individual starts a new venture, he is filled with enthusiasm and drive to achieve success. But when he faces the challenges of real business or bears loss, or his ideas don't work, he loses interest or motivation.

4.Lack of patience: The desire to achieve success in the first attempt or to become rich very soon is the prime motivating factor of modern youth. When such dreams do not come true, they lose interest. This gradually results in the failure of business.

5.Inability to dream: Entrepreneurs, who are short on vision or become satisfied with what they achieve, sometimes lose interest in further expansion or growth of the business.

➤ **Social Barriers**

The social attitude inhibits many people from even thinking of starting a business. The important social barriers are as follows:

1.Low status: The society thinks that entrepreneurs are the people who exploit the society. Thus the attitude of the society towards entrepreneurs is not positive.

2.Custom and tradition of people: Most people want a real job. Even parents who are entrepreneurs wouldn't like their children to be entrepreneurs. Thus lack of support from society and family hinder the growth of entrepreneurs.

3.10 Various Innovation Cells

3.10.1 Institution's Innovation Council (IIC)



Figure 3.1 IIC logo

In the year 2018, the Ministry of Education (MoE) through MoE's Innovation Cell (MIC) launched the Institution's Innovation Council (IIC) program in collaboration with AICTE for Higher Educational Institutions (HEIs) to systematically foster the culture of innovation and start-up ecosystem in education institutions. IICs' role is to engage 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, IPR, project handling and management at Pre-incubation/Incubation stage, etc.. IIC is a unique initiative of MoE's Innovation Cell and is different from other existing models, It aims at streamlining and strengthening the Innovation and startup ecosystem in HEIs campuses in the following ways: Breaking isolation and enhancing coherence and synergy among departments, centres, units, student bodies at the institute. It derives experts and resources from different departments and ecosystem enablers from outside the institute in a planned manner to promote and support innovation and startup programs on campus.

- IIC ensures to overcome seasonality nature of functioning of EDC and other centres and ensures round the year activities in the campus to give exposure & multiple opportunities for students and faculties to take part and understand the importance of Innovation, inculcating entrepreneurship skill and mindset and encouraging taking startup as an alternative career option.

- To engage key stakeholders effectively and develop healthy competition among IICs to carry out round the year activities in synchronisation with other similar bodies such as incubation units and pre-incubation centres –start-up cell and IEDC units, etc.

3.10.11 Innovation and Entrepreneurship Development Centres(IEDC)



Figure 3.2 IEDC logo

The Innovation and Entrepreneurship Development Centres (IEDC) are platforms set up in Engineering, Management, Arts & Science Colleges, Medical Institutions, Polytechnics and Universities with an aim to provide students with an opportunity to experiment and innovate. Kerala Startup Mission has set up IEDCs in 425 institutions across the State which provide avenues for creative students to learn, collaborate and transform their innovative ideas into prototypes of viable products and services. IEDCs works as the first launch pad for a student’s entrepreneurial journey and provide them with access to cutting edge technology, world-class infrastructure, high-quality mentorship, early risk capital and global exposure.

Objectives:

- ❖ To promote an innovation driven entrepreneurship culture among the students.
- ❖ To develop and promote commercially viable innovative products and solutions from the students.
- ❖ To promote enterprise among budding technopreneurs and thereby creating more employment opportunities.

- ❖ To bridge the gap between Industry and Academia.
- ❖ To support the budding Entrepreneurs through Grants and to create an entrepreneurship flavour in the academic fraternity.

3.10.3 Entrepreneurship Development Club (ED Club)

Entrepreneurship Development Clubs have been formulated in schools and colleges to inculcate Entrepreneurial Culture amongst youth and equip them with the skills, techniques and confidence to act as torch-bearers of entrepreneurship of the new generation. The main objective of the entrepreneurship Development Club is to infuse creativity and innovation among the students of our college. The State Government is encouraging the initiatives to promote Entrepreneurship among the students.

Aims and Objectives:

- To inculcate social virtues i.e. Trust worthiness, Integrity, Hard work, Discipline, Honesty etc.
- To sensitise students on the real Economic and Industrial development scenario of the state.
- To inculcate entrepreneurial culture in students.
- To induct entrepreneurial spirit in the institution.

3.10.4 IEEE

The Institute of Electrical and Electronics Engineers IEEE, pronounced "Eye-triple-E," stands for the Institute of Electrical and Electronics Engineers. The organisation is chartered under this name and it is the full legal name. IEEE, an organisation dedicated to advancing innovation and technological excellence for the benefit of humanity, is the world's largest technical professional society. It is designed to serve professionals involved in all aspects of the electrical, electronic, and computing fields and related areas of science and technology that underlie modern civilization. IEEE's roots go back to 1884 when electricity began to become a major influence in society. There was one major established electrical industry, the telegraph, which since the 1840s had come to connect the world with a data communications system faster than the speed of transportation. The telephone and electric power and light industries had just gotten underway.

Aims and objectives:

- ❖ To lay the foundation for development and generation of technical manpower and know-how in the field of Industrial Electronics.
- ❖ Maintenance and repair of industrial equipment, instruments belonging to public and private sector organisations.
- ❖ Quality control in production of the electronics components, devices, equipment and systems.
- ❖ Design, development and small scale production of electronic equipment and systems.

3.10.5 TinkerHub Foundation

Non-Profit Organisation aimed at making use of 21st-Century Technologies and Learning Methods to foster a fresh breed of highly skilled young people empowered with technical and social skills. Tinkerhub's mission is to empower people, whether it be a student or a tech-enthusiast, by giving them an opportunity to learn emerging technology skill sets that would accelerate innovation within their learning path, and make them future-ready tech- talents. The Foundation aims at creating a focussed platform to accelerate the learning of skills to be on par with the global technology ecosystem and the new global workplace. Tinkerhub works as a community of enthusiasts that focuses on nurturing co-creation and catalysing a technology learning culture through peer-to-peer or reciprocal learning.

3.10.6 Hackclub

Hack Club is a global nonprofit network of high school computer hackers, makers and coders. Founded in 2014 by Zach Latta, it now includes 400 high school clubs and 20,000 students. It has been featured on the TODAY Show, and profiled in the Wall Street Journal and many other publications Hack Club is completely free and allows students to access workshops, online events, AMAs, and group projects, among several other resources to start coding even without prior experience. Additionally, members benefit from connecting with other like-minded students. The goal of Hack Club is to help you become a hacker.

3.11 KERALA STARTUP MISSION (KSUM)

3.11.1 History of Startup Mission

Kerala Startup Mission (KSUM) formerly known as Technopark Technology Business Incubator, is India's first and Most successful Non Academic Business Incubator. hosted and housed inside the Asia Largest IT Park Technopark. Technopark Technology Business Incubator (T-TBI), a joint association of Technopark, Trivandrum and the Department of Science and Technology (DST), Government of India, to help the technology business start-ups, started operation during 2007. KSUM is the pioneer champion among incubators which functions with a vision to support and nurture the startups in the state of Kerala. It also is the first non-academic business incubator. The Technopark TBI spreads over 20,000 square feet and is situated in the lush green and world class IT infrastructure, The Technopark, the biggest in the continent.

3.11.2 Vision

The vision of Startup mission is to become the best Technology Business Incubator in the Asia Pacific region by identifying and promoting the true innovators and entrepreneurial talents all over the region and to bring excellence to the early-stage companies through value enhancement services of technology and business incubation by imparting necessary training in technical & managerial skills to become successful Techno-preneurs and Business Enterprises.



Figure 3.3 Startup Mission Logo

The Kerala Startup missions are designed to provide a signboard to budding entrepreneurs who wish to launch themselves into the world of technology based business careers. Entrepreneurs' bright ideas to develop a product or service using advanced technology solutions can find a fertile ground in Kerala Startup Mission.

KSUM is designed to provide entrepreneurs all support to make technology based business ventures successful. The highly innovative and productive environment of KSUM provides entrepreneurs the right ambiance to build up technology ventures at international standards. KSUM is restricted to high tech startups with technology products and innovations with a limited time frame that literally makes the entrepreneurs to seriously work on his project idea and boost him to come up with a market viable prototype. Kerala Startup mission provides startups with all the resources to build their innovative ideas. Incubates in Kerala Startup mission are selected after being reviewed by a technical expert committee. The Startup so selected will be given mentorship and exposures to conferences as well as summits. The Kerala Startup Mission (KSUM) system will ensure that the product is moulded in such a way that when it hits the market it will succeed. The incubations stages comprised of;

- a) Pre-incubation Stage (3-6 months)
- b) Incubation Stage (6-12 months)
- c) Accelerator Stage (3-6 months)

Pre-incubation Stage

Pre-incubation stage mainly focuses on ideation stage, where technologists having potential innovative ideas can be provided with a co-working space. During this period, the entrepreneur takes up the role of a 'techno-evangelist' who develops the idea into a proof of concept and prepares him for understanding the technical feasibility of the idea proposed. Sometimes, a number of potential innovations or startup teams may come out of this coworking ecosystem. KSUM will be supporting the startups by mentoring or by creating the right platform for networking. Once a marketable technology/product idea evolved, a company can be formed and KSUM can look at for Incubation Stage, KSUM shall assist the innovator in getting grants from DST/DSIR for the ventures

Incubation Stage

Incubation stage will be 6-12 months where startup companies graft product development and prepare themselves for marketing. During this stage, the entrepreneur takes up the role of a 'Technopreneur', who brings all his efforts (such as technology, team, seed money) to build a market viable prototype (MVP's). KSUM at this stage will allot them specific seats/modules along with funds or grants as applicable under department scheme and right mentorship. KSUM can also offer a wide array of value

added services like entrepreneur training and workshops, and a skill development program. leadership program, R&D facilities, International tie ups etc. to speed up the incubation cycle. The incubation stage enables the entrepreneur to be ready with an 'innovative technology' in the form of marketable product that can primarily drive the market, and which is easy to pitch before an investor/VC in future.

Accelerator stage

Accelerator stage will be of 3-6 months, and this will be a business startup. The focus of the accelerator stage shall be on rapid growth and to sort out all organisational, operational, financial and strategic difficulties that may be facing the business under KSUM guidance through a highly systematic approach. The startup shall be presented to VC's and investors (Strategic & Financial).

Key (KSUM) Accelerator

The State seeks to set up more global and world-class accelerators by inviting global accelerators to set up their programs in the State. Kerala Startup Mission has also set up an accelerator, named the KEY (KSUM-EY) Accelerator along with global accounting giant Ernst & Young at the Kinfra Film and Video Park, in Thiruvananthapuram. Apart from this, the State also provides incentives & support for filing intellectual property and also provides startups in the state with access to several common infrastructure facilities such as aCloud SeNel', device-testing labs, Fablabs, community and maker spaces and expert mentorship through its board of mentors etc. Kerala Startup Mission anchors a strong incubation network in the State and supports other incubators in the State by giving them access to the KSUM networks, and also provides incentives such as subsidies on overheads and rentals. It also supports community organisations working in the same sector for common goals through its Start-up Community Partner Development Programme (SCPDP).

Technology innovative zone

With the world changing at a radical pace, the 21st century will need more entrepreneurs than ever before in all domains. While the need to create more jobs is becoming imperative against an uncertain global economy, it is equally important to ensure that the jobs are socially, economically and environmentally sustainable. To achieve this goal, an entrepreneurial ecosystem is the future roadmap. Innovation & Incubation is not something that can be or not limited to one sector. Technology Innovation Zone by the Government of Kerala is the next step towards Entrepreneurship development which

St. Teresa's College (Autonomous), Ernakulam

starts from building a talent pipeline from schools and colleges and ending with Initial Public Offer for Startups.

Innovation Zones

Kerala Startup Mission is setting innovation zones with State departments or other organisations relating to their needs at Incubators in-order to bring closer startup-institution interaction for creating innovative products that fulfils such needs. Kerala State Electricity Board Ltd., Kerala's largest and only public utility provider in the power sector has already setup an innovation zone at Kerala Startup Mission Recognizing that the Government is also one of the largest technology consumers in any ecosystem, there is also a strong attempt to provide Startups with access, exposure and support to participate in Government orders and contracts. Thus, through the wide gamut of interventions, schemes and programs the State. through the nodal-agency Kerala Startup Mission is holistically engaging in the creation and development of a vibrant and world-class technology-innovation ecosystem in Kerala.

Mentors

Kerala Startup Mission, in association with Government of Kerala, provides incubates with research assistance, prototype developing assistance etc. in their respective fields. Our mentoring team includes both technical experts who are in different sectors and business experts who provide business and marketing assistance etc. Mentors will support the startups to develop a product or service using advanced technology solutions and help them to achieve their goal.

Fellowship program

The Government of Kerala is building up a startup climate in the state and is offering a one- year fellowship to young graduates interested in working with technology startups and student entrepreneurs. This is a flagship program of Government of Kerala towards promotion of innovation and entrepreneurship across the State. Kerala Startup Mission is the implementing agency for the same. According to this Kerala Startup Mission has selected 23 young graduates as fellows, who will be a campaigner for technology startup activities in the state and will conduct various events like entrepreneurship awareness camps, maker sessions, hackathons and ideathons in colleges and other institutions in Kerala.

Team of experts

Kerala Startup Mission is maintaining a technical expert panel to evaluate innovative ideas of students, startups, innovators. The panel consist of experts from various domains like physics, automobile, mechanical engineering, biomedical, bioinformatics, bio pharmacy, chemical engineering, IP, computer science, electrical and electronics engineering, cryogenic engineering, cyber forensic, orthopaedics, cytogenetic, plant breeding, ethno biology, ethno pharmacology, dentistry, energy management. entomology, geology, food science, marine technology, medical electronics. metallurgy, power electronics, agriculture, aqua culture, oncology, ship technology etc.

Startup Community

The Startup community development program is an initiative by Kerala Startup Mission with an aim to carter inclusive development in the Startup ecosystem within the state. Technology being one of the fastest moving waves across the world, inclusive growth can only be accomplished by developing startup communities across the state. The startup community partner program, generally aims at developing the startup community from different sectors of the society. The program will act as a catalyst to connect the whole system from students, professionals, entrepreneurs. Communities who work for the welfare of the society in enhancing the knowledge level can partner with Kerala startup mission.

3.11.3 The following are some of the major schemes under KSUM for entrepreneurship development:

Multiplier Grants Scheme (MGS)

Overview: The scheme aims to support IPR awareness workshops/seminars for sensitising and disseminating awareness about Intellectual Property Rights: among various stakeholders especially in the E&IT sector. It also aims to provide financial support to MSMEs and technology start-up units for international patent filing to encourage innovation and recognise the value and capabilities of global IP along with capturing growth opportunities in the ICTE sector. The MGS also aims to encourage collaborative R&D between industry and academics/R&D institutions for development of products and packages.

Industry Applicable: IT Services, analytics, enterprise software, technology hardware, Internet of Things, AI.

Eligibility: Startups, incubator/academia/accelerators. Should have projects in electronics & information technology.

Quantum of Assistance: Reimbursement will be limited to a total of INR 15 Lakhs per invention or 50% of the total expenses incurred in filing and processing of the patent application up to grant, whichever is lesser. Majorly provides capital subsidy of 20% in the Special economic zone (25% in non-SEZ) for units engaged in electronics manufacturing. Limited to a maximum of INR 2 Cr per project and the duration of each project should, preferably, be less than two years. For industry consortiums these figures would be INR 4 Cr and three years.

Time Period: 2-3 years.

Technology Incubation and Development of Entrepreneurs (TIDE) in the areas of Electronics and ICT.

Aim: Technological Incubation and Development of Entrepreneurs (TIDE) aims to assist Institutions of Higher learning to strengthen their Technology Incubation Centres and thus enable young entrepreneurs to initiate technology start-up companies for commercial exploitation of technologies developed by them.

Eligibility: The project proposals for TIDE would be invited (as per the enclosed format) from institutions of higher learning conducting education Programmes of M. Tech/PhD in Engineering and Technology in ICT, Electronics and Management. These include institutions such as IITs, IIMS, NITS, IIITs and other premier institutes. The invitation would also be published on the Deity website.

Quantum of assistance: Each TIDE centre would be given financial support as Grant-in-aid of up to Rs 155 lakhs - payable in instalments. These funds can be used for improvement in infrastructure - up to Rs. 30 lakhs and for providing financial support to the incubating companies - Rs 125 Lakhs (@ Rs 25 lakhs per company). The grants under the proposed scheme would be subject to the enclosed terms & conditions. Deity would constitute a Project Review and Steering Group (PRSG) for the Scheme. Release of funds to the HI/ TIDE will be done based on the recommendations of PRSG.

Atal Incubation Centres (AIC)

Overview: AICs aim to support and encourage startups to become successful enterprises. They will provide necessary and adequate infrastructure along with high-quality assistance or services to startups in their early stages of growth. As per June 16, 2017, Startup India Action Plan status report, NITI Aayog has approved 10 institutes to establish new incubators with a grant of INR 10 Cr each.

Industry Applicable: Chemicals, technology hardware, healthcare & life sciences, aeronautics/aerospace & defence, agriculture, AI, AR/VR (augmented + virtual reality), automotive, telecommunication & networking, computer vision, construction, design, non-renewable energy, renewable energy, green technology, fintech, Internet of Things, nanotechnology, social impact, food & beverages, pets & animals, textiles & apparel.

Eligibility: AICs can be established in public/private/public-private partnership mode. These can be established in: Academia - includes higher educational institutes and R&D institutions. Non-academic- includes companies/ corporates/technology parks / industrial parks/ any individual/ group of individuals.

Quantum of Assistance: AIM will provide a grant-in-aid of INR 10 Cr to each AIC for a maximum of five years to cover the capital and operational expenditure cost in running the centre. The applicant would have to provide a built-up space of at least 10,000 sq. ft to qualify for the financial support.

Time Period: N/A

Promoting Innovations in Individuals, Startups and MSMEs (PRISM)

Agency: Council of Scientific & Industrial Research.

Industry Applicable: The scheme provides grants, technical guidance and mentoring to individual innovators by incubating their idea towards the creation of new enterprises in phases. It also provides grant-in-aid support to technology solution providers developing technology solutions aimed at helping MSME cluster.

Eligibility: The scheme runs in two phases. For PRISM I, any Indian citizen including student innovators can apply. For PRISM II, PRISM innovators or innovators who have successfully demonstrated proof of concept with the support of government institutions/agencies; PRISM-R&D proposals and public funded - R&D institutes/ autonomous institutions/ laboratories/ academic institutes etc. are eligible.

Quantum of assistance:

>PRISM Phase-I Category-1: For proof of concept/prototype/models, with project cost up to INR 5 Lakhs, a maximum of INR 2 Lakhs or 90% of the total project cost (whichever is less) is provided.

> PRISM Phase-I, Category-II: For fabrication of working model/ process know-how/testing & trial/ patenting/ technology transfer, etc. with a project costing between INR 5 Lakhs to INR 35 Lakhs, a maximum of INR 20 Lakhs or 90% of the total project cost (whichever is less) is given. >Prism-Phase-II: Enterprise incubation, with a project costing between INR 35 Lakhs and INR 100 Lakhs, up to INR 50 Lakh limited to 50% of the total project cost is provided. > For PRISM-R&D Proposals, up to INR 50 Lakhs limited to 50% of the total project cost is given.

A Scheme for promotion of Innovation, Entrepreneurship, & Agro-industry (ASPIRE)

Agency: Steering Committee, Ministry of MSME

Overview: Aspire has been launched with an objective to set up a network of technology centres, incubation centres to accelerate entrepreneurship and also to promote startups for innovation and entrepreneurship in rural and agri- culture-based industry. It also includes the setting up of Technology Business Incubators (TBIs). As per the June 2017 status report of Startup India Action Plan, 15 TBIs are being set up. 11 TBIs have been approved and four others are in advanced stages. Six Technical Business Incubators are in advanced stages of approval by DST. INR 34.92 Cr has been sanctioned and INR 15.3 Cr has been already disbursed to nine TBIs.

Industry Applicable: Agriculture, pets & animals, social impact, healthcare & life sciences

Eligibility: All MSMEs with an Entrepreneurs Memorandum (EM) registration.

Quantum of Assistance:

>One-time grant of 50% of the cost of Plant & Machinery excluding the land and infrastructure or an amount up to INR 30 Lakhs, whichever is less to be provided for supporting 20 existing incubation centres.

> One-time grant of 50% of the cost of Plant & Machinery excluding the land

and infrastructure or an amount up to INR 100 Lakhs, whichever is less to be provided for setting up of new incubation centres.

> Support would be provided for incubation of ideas at the inception stage, each idea would be provided financial support @INR 3 Lakhs per idea to be paid up front to the incubator to nurture the idea, with a target to support 450 ideas.

>A one-time grant of INR 1 Cr will be provided to the eligible incubator as Seed Capital. The Incubator will invest as Debt/ Equity funding up to 50% of total project cost or INR 20 Lakhs per startup, whichever is less. 150 such innovative and successful ideas to be supported.

> INR 200 Lakhs for Accelerators to hold 10 workshops for incubates [out of the existing centres supported and new centres set up] to assist for creating successful business enterprises. Plans to conduct 10 such workshops.

Time Period: Period of incubation to be 12 months to 24 months.

Industry Relevant R&D

Agency: Science and Engineering Research Board (SERB)

Overview: SERB aims to support ideas that address a well-defined problem of industrial relevance through this scheme. The proposal is jointly designed and implemented by an academic partner (which includes a partner from national laboratories/recognised R&D institutions, as the case may be) and industry. Industry Applicable: Sector-agnostic

Eligibility: The academic partner must be an Indian citizen and hold a regular academic/research position in an academic institution or national laboratories or recognised R&D institutions. More than one academic partner may be allowed. For being an industry partner, all industries (including MSME & industrial R&D Centres) are eligible. More than one Industry and or more than one Investigator from one Industry can be associated with a project. He/she should be an Indian citizen residing in India, holding a regular academic/research position in a recognised institution.

Quantum of Assistance: The industry share should not be less than 50% of the total budget. Overhead is provided to the academic partner. The SERB share shall not exceed INR 50 Lakhs for a project. The upper cap may be relaxed on a case-to-case basis. The support from SERB shall be extended only to the academic partner and not to the

industry. The research grant will be provided for equipment, manpower, consumables, travel, pilot plant study, and any other costs associated with the project.

Time Period: First call in a financial year will be made in the first week of June of every year and the window will be opened for submission of research proposals from June 1 to July 31. Funding decision on the proposals will be communicated to the PIs during December and the grant will be released in January-February next year. The second call will be made in the first week of November of every year and the window will be opened for submission of research proposals November 1 to December 1. Funding decisions on the proposals will be communicated to the PIs during May next year and the grant will be released in June-July.

Entrepreneurial and Managerial Development of SMEs through Incubators

Description: The objective of the scheme is to provide early stage funding to nurture innovative business ideas (new indigenous technology, processes, products, procedures, etc.) that could be commercialised in a year. The scheme provides financial assistance for setting up business incubators.

Quantum of assistance: Funding support for setting up of 'Business Incubators (BI):

The cost may vary from Rs 4 to 8 lakh for each incubatee/idea, subject to overall a) Upgradation of infrastructure Rs 2.50 lakh b) Orientation/training Rs 1.28 lakh ceiling of Rs 62.5 lakh for each BI. c) Administrative expenses Rs 0.22 lakh Total assistance per BI Rs 66.50 lakh

Eligibility: Any individual or MSME with innovative ideas ready for commercialisation can apply to the host institution (e.g., IITS, NITs, technical colleges, research institutes, etc.) in order to obtain fund support.

How to apply: Application can be made by the technical institution desirous of becoming the host institution, once a Request for Proposal (RFP)/ Expression of Interest (EoI) is released.

NewGen Innovation and Entrepreneurship Development Centre (NewGen IEDC)

Overview: The NewGen IEDC is being promoted in educational institutions to develop an institutional mechanism to create an entrepreneurial culture in S&T academic institutions and to foster techno-entrepreneurship for generation of wealth and

employment by S&T persons. As of now, there are a total of 40+ EDCs and 35 IEDCs in different states.

Agency: NewGen Innovation and Entrepreneurship Development Centre (NewGen IEDC)

Industry Applicable: Chemicals, technology hardware, healthcare & lifesciences, aeronautics/aerospace & defence, agriculture, AI, AR/VR (augmented + virtual reality), automotive, telecommunication & networking, computer vision, construction, design, non-renewable energy, renewable energy, green technology, fintech, Internet of Things, nanotechnology, social impact, food & Beverages, pets & animals, textiles & apparel.

Eligibility: The parent institution should have requisite expertise and infra- structure. This includes a minimum dedicated space of about 5,000 square feet to establish a NewGen IEDC, library, qualified faculty, workshops, etc.

Quantum of assistance: The NSTEDB startup scheme by the Indian government will provide a limited, one-time, non-recurring financial assistance, up to a maximum of INR 25 Lakhs. Also, non-recurring grants would be provided for supporting working capital cost.

Time Period: N/A

DATA INTERPRETATION

The study was conducted to analyse the implementation of Kerala Startup Mission Schemes in colleges focusing mainly in the colleges situated in the Central zone. The primary data collected from 36 respondents with the help of structured questionnaires are analysed and interpreted to find out answers for the research questions.

The awareness of KSUM, the incentives and schemes provided by them, their effectiveness, barriers the entrepreneurs faced and the overall success rate of KSUM are studied in detail through this survey. The demographic variable used in the study includes age, gender, educational qualifications and geographical location of the institutions.

Table 4.1 Age Group of Respondents

Age	No of respondents	Percentage
15-20	4	11.11
20-25	25	69.5
25-30	2	5.6
30-35	1	2.8
35-40	2	5.6
40-45	1	2.8
45-50	1	2.8
Total	36	100

Source: Primary data

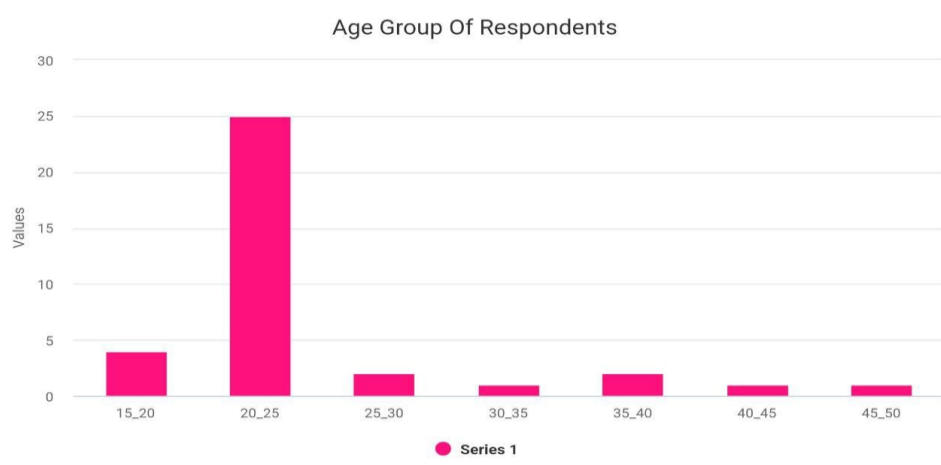


Fig 4.1 Age Group of Respondents

Interpretation :

The table shows the age group of respondents across different colleges in Kerala focusing on the Central zone. Here out of 36 respondents 4 respondents (11.11%) belongs to the age group of 15-20, 25 respondents (69.5%) belongs to the age group of 20-25, making them the largest group of respondents, 2 respondents (5.6%) belongs to the age group of 25-30, followed by 1 member (2.8%) from age group of 30-35, 2 members (5.6%) from 35-40 age group and 1 each from 40-45 and 45-50.

Table 4.2 Classification on the basis of gender of respondents

Gender	No of respondents	Percentage
Male	21	55.6
Female	15	44.44
Others	0	0
Total	36	100

Source: Primary data

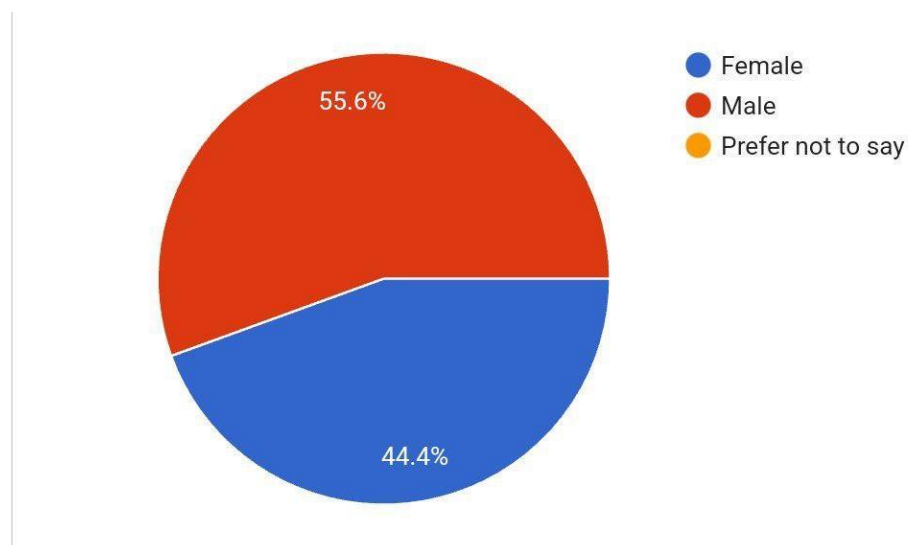


Fig 4.2 Gender wise classification of the respondents

Interpretation:

The table shows the gender classification of the respondents. Here out of the 36 respondents, 21(55.6%) were male and 15 (44.44%)were female. Thus it is clear that the majority of the respondents are male.

Educational qualification	No of respondents	Percentage
Graduation	19	52.77
Post Graduation	2	5.55
Professional	9	25
Others	6	16.66
Total	36	100

Source: Primary data

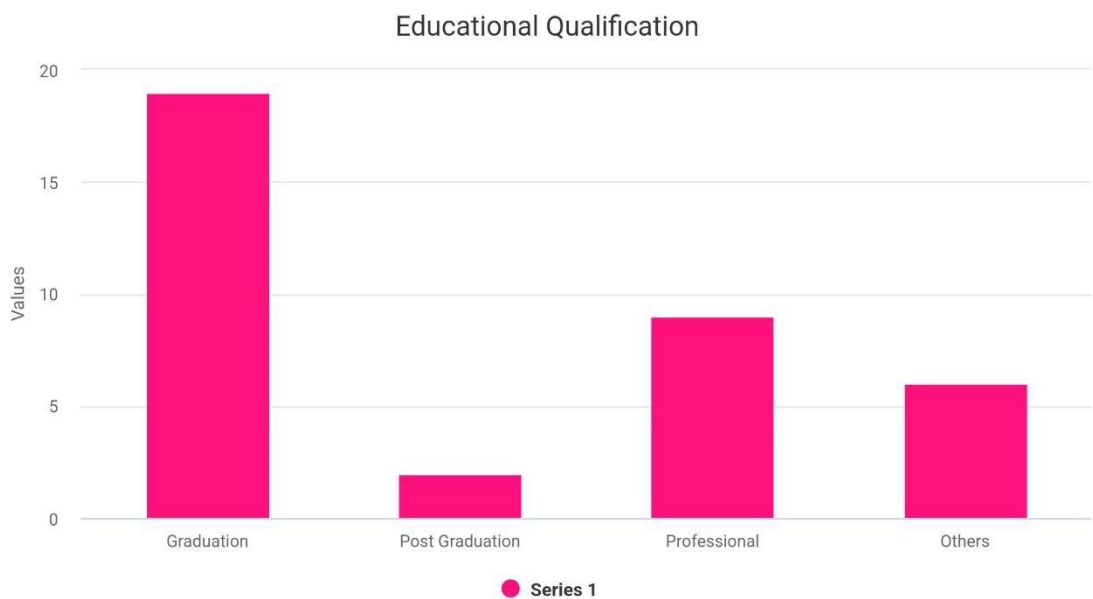


Fig 4.3 Educational background of the respondents

Interpretation:

Table 4.3 shows that 19 members (52.77%) are graduates, 2 members (5.55%) are post graduates, 9 members (25%) are from professional background and 6 members (16.66%) belong to other categories.

Thus it can be interpreted that most of the respondents are pursuing their graduation.

Table 4.4 Employment status

Employment status	No of respondents	Percentage
Student	31	86.1
Mentor	4	11.1
Others	1	2.8
Total	36	100

Source: Primary data

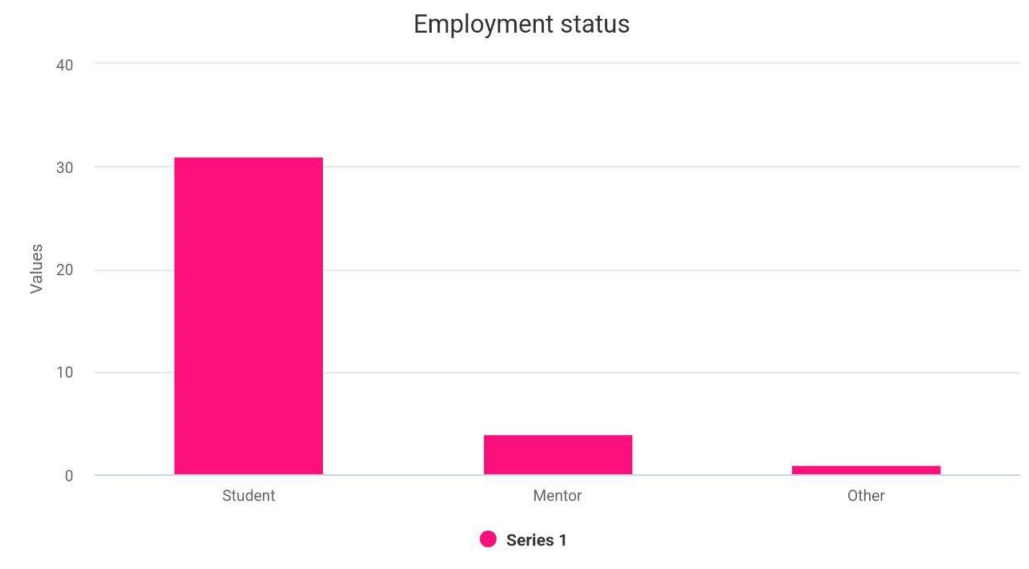


Fig 4.4 Employment status of the respondents

Interpretation:

Out of the 36 respondents, 31 (86.1%) are students, 4 (11.1%) are mentors and the remaining 1 (2.8%) belong to other categories.

It can be interpreted that the majority of the respondents are students.

Table 4.5 District

District	No of respondents	Percentage
Alappuzha	9	25
Ernakulam	17	47.22
Kottayam	10	27.77
Total	36	100

Source: Primary Data

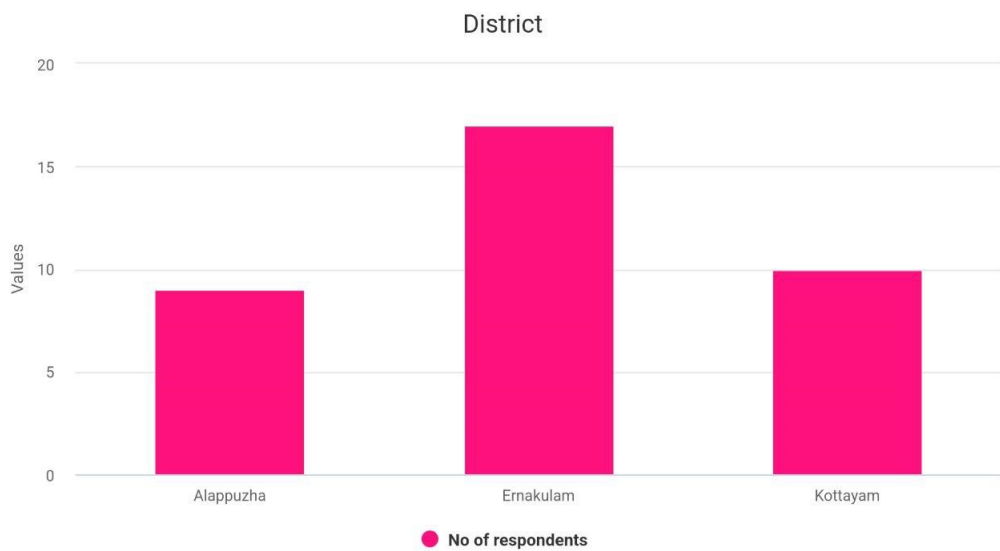


Fig 4.5 District

Interpretation:

Out of the 36 respondents, 9(25%) are from Alappuzha, 17(47.22%) are from Ernakulam and the remaining 10(27.77%) are from Kottayam.

Thus majority of the respondents are from Ernakulam.

Table 4.6 Awareness on KSUM

Awareness	No of respondents	Percentage
Yes	34	94.4
No	2	5.6
Total	36	100

Source: Primary data

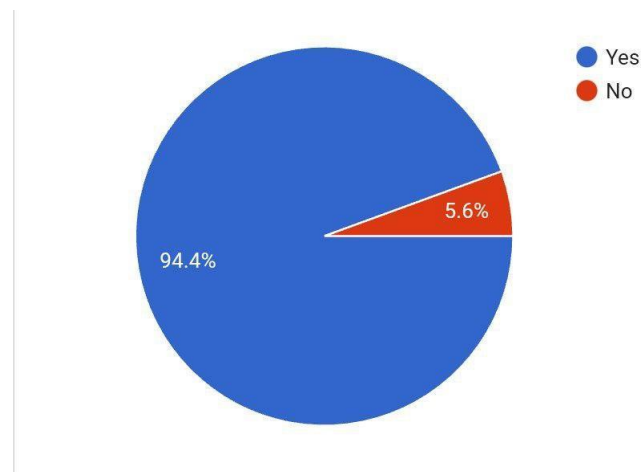


Figure 4.6

Interpretation:

Table 4.6 shows that out of the 36 respondents, 34 members (94.44%) are aware of KSUM.

Table 4.7 Awareness on the various incentives and schemes provided by the KSUM

Awareness	No of respondents	Percentage
Yes	25	69.4
No	11	30.6
Total	36	100

Source: Primary data

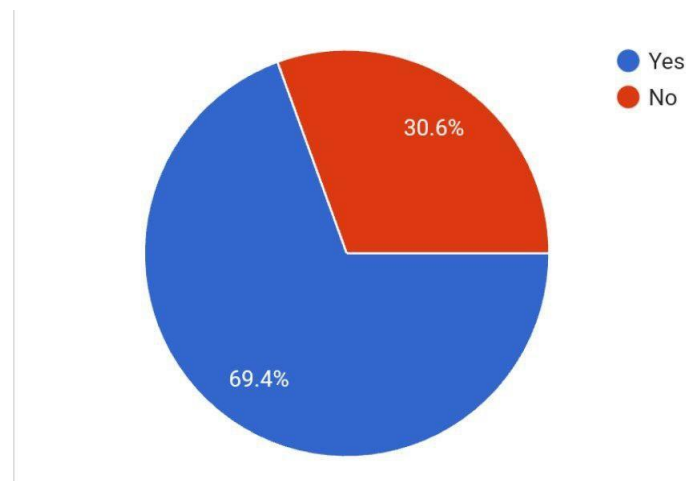


Figure 4.7 Awareness on the various incentives and schemes provided by the KSUM

Interpretation:

Table 4.7 shows that out of the 36 respondents, 25 (69.4%) are aware of the various incentives and schemes provided by the KSUM and 11 (30.6%) were not.

It is evident that most of the people are aware of the incentives and schemes provided by the KSUM.

Table 4.8 Various incentives and schemes of KSUM

Incentives and schemes	No of respondents	Rank
Multiplier Grants Scheme	15	2
Technology Incubation and Development of Entrepreneurs	13	3
Atal Incubation Centres	7	7
Promoting Innovation in Individuals, Startups and MSMEs	12	4
A Scheme for Promoting Innovation, Rural Industry & Entrepreneurship	16	1
Industry Relevant	9	6
Entrepreneurial and Managerial Development of SMEs through Incubators	10	5
NewGen IEDC	16	1
Others	5	8

Source: Primary data

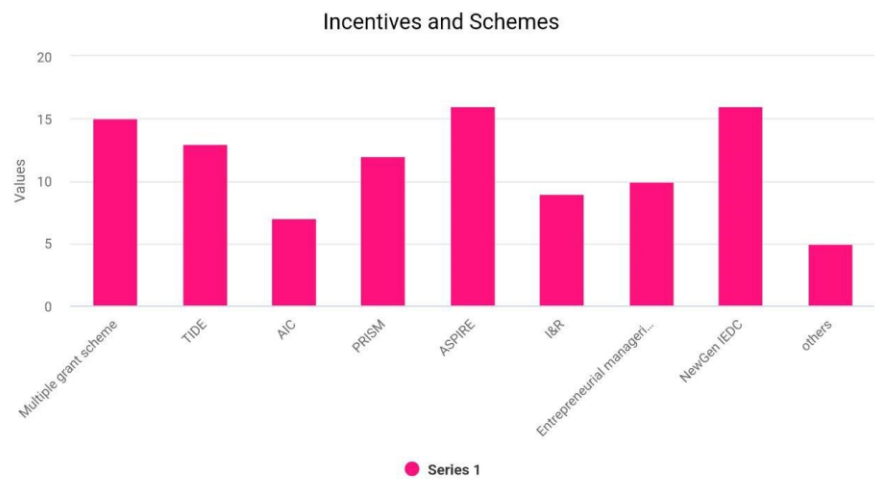


Figure 4.8 Incentives and Schemes

Interpretation:

Table 4.8 indicates that the majority of the respondents are aware of NewGen IEDC, ASPIRE and MGS.

Table 4.9 Usage of the KSUM incentives and schemes

Response	Use by individuals		Use by institutions		Use for the budding entrepreneurs	
	No of respondents	Percentage	No of respondents	Percentage	No of respondents	Percentage
Yes	21	58.3	16	44.4	31	86.1
No	15	41.7	6	16.7	0	0
Maybe	0	0	14	38.9	6	13.9
Total	36	100	36	100	36	100

Source: Primary data

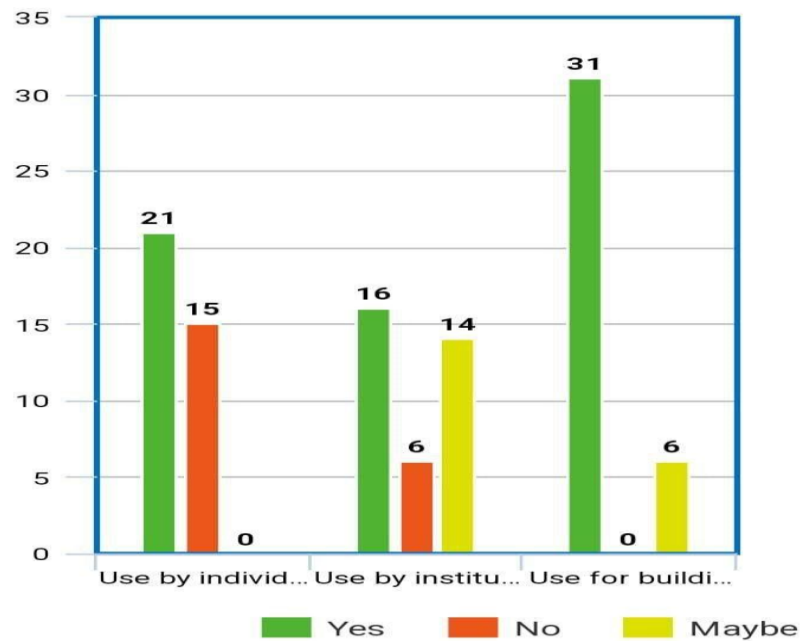


Figure 4.9 Usage of the KSUM incentives and schemes

Interpretation:

Table 4.9 indicates that out of the 36 respondents, 21 respondents (58.3%) use these schemes on individual level, 16 respondents (44.4%) use them on the institutional level and 31 respondents (86.1%) affirm that they are useful for the budding entrepreneurs. From the above data we can conclude that the KSUM incentives and schemes are greatly useful to people at all levels.

Table 4.10 Assistance provided by the above schemes

Assistance	No of respondents	Rank
Financial	17	2
Technical	12	5
Research	10	6
Infrastructure	7	7
Training and Development	13	4
Mentorship	15	3
Incubation	12	5
All of the above	24	1

Source: Primary data

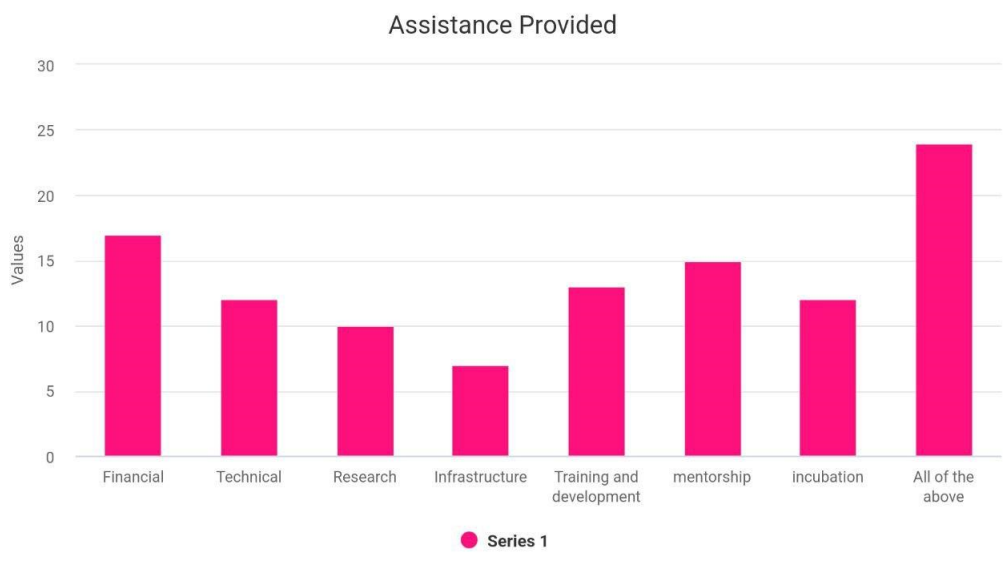


Figure 4.10 Assistance provided by the schemes

Interpretation:

The above table affirms that the schemes provide all sorts of financial, technical, research, infrastructure, training and Development, mentorship as well as Incubation facilities. The major assistance is in the form of Financial and mentorship.

Table 4.11 Success rate of people using these schemes

Success rate	No of respondents	Percentage
Yes	19	52.8
No	9	25
Maybe	8	22.2
Total	36	100

Source: Primary data

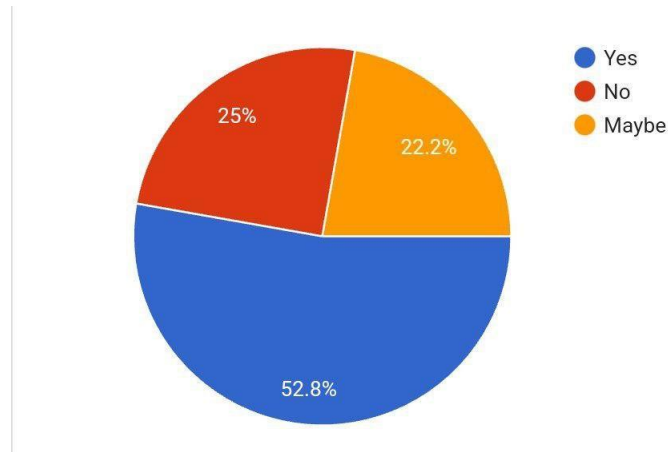


Figure 4.11 Success rate of people using these schemes

Interpretation:

Table 4.11 indicates that the success rate of these schemes are quite high with 19 respondents (52.8%) assuring that they are useful whereas the remaining 9 members (25%) responding negatively and 8 respondents (22.2%) were not sure about the success of these schemes.

Table 4.12. Barriers faced on the implementation of these schemes

Barriers	No of respondents	Rank
Financial	14	3
Technical	10	4
Infrastructure	17	2
Lack of training	18	1
Lack of mentorship	17	2
Others	2	5

Source: Primary data

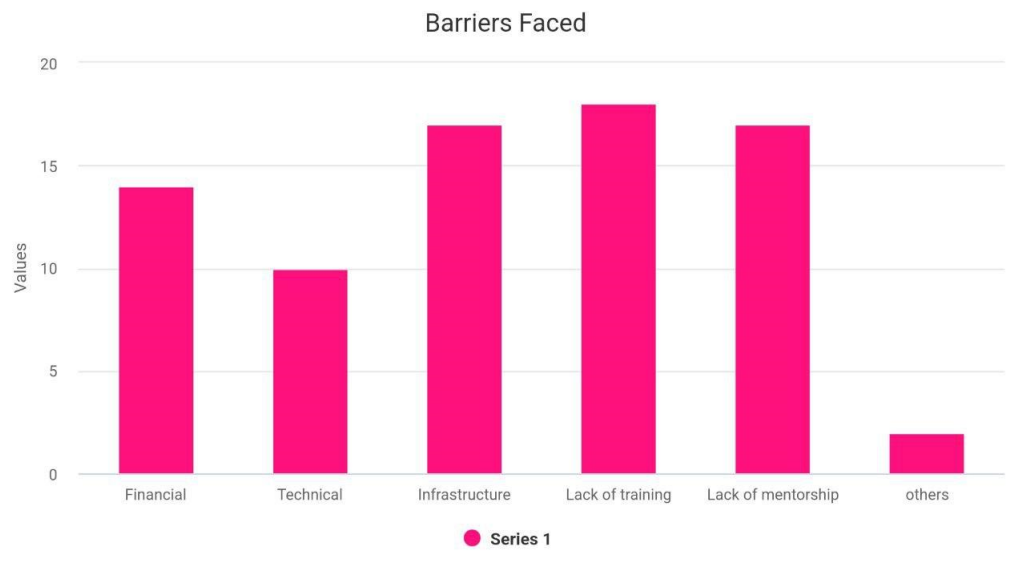


Figure 4.12 Barriers faced on the implementation of these schemes

Interpretation:

Table 4.12 states that the major barrier faced is the lack of training, followed by the lack of infrastructure facilities and mentorship. 14 members responded that they faced financial barriers and 10 of them faced technical barriers. The other barriers identified were the lack of interest from the students towards taking up entrepreneurship as a career and societal barriers.

Table 4.13 Corrective measures used

Measures	No of respondents	Rank
Financial	16	3
Technical	12	4
Research	16	3
Infrastructure	19	1
Training and development	18	2
Mentorship	2	5
Incubation	2	5
All of the above	2	5

Source: Primary data

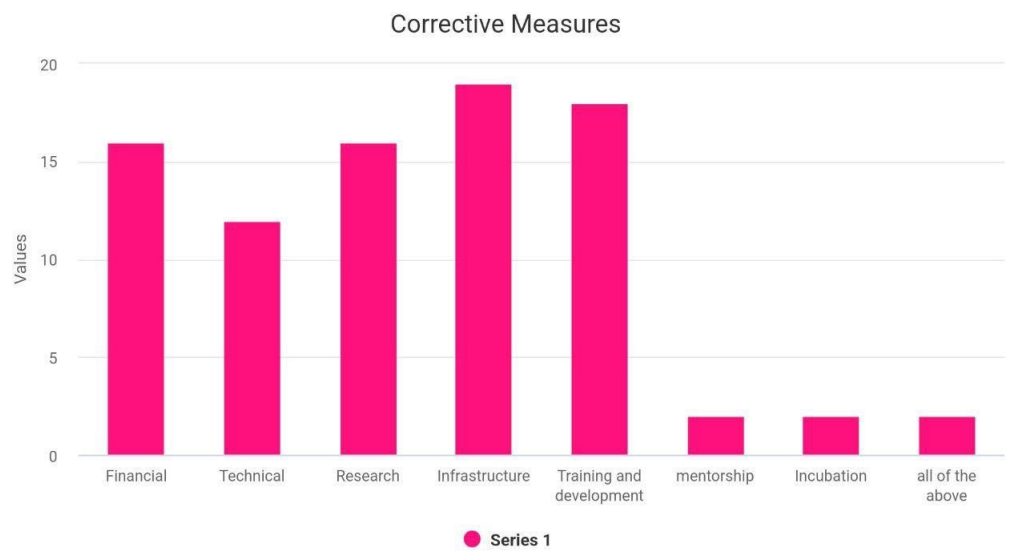


Figure 4.13 Corrective measures used

Interpretation:

From the above table 4.13 it is clear that the major corrective measures used were providing Training, and providing mentorship. The other measures used were provision of financial assistance, technical assistance and infrastructure facilities. Two respondents also conveyed that no measures were taken till date.

Table 4.14 Cultural change brought by KSUM among the youth

Cultural change	No of respondents	Percentage
Yes	22	61.1
No	3	8.3
Maybe	11	30.6
Total	36	100

Source: Primary data

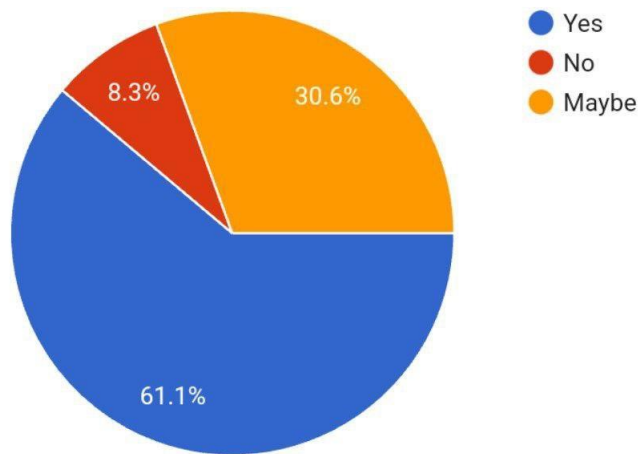


Figure 4.14 Cultural change brought by KSUM among the youth

Interpretation:

This table 4.14 shows that 22 respondents (61.1%) agree with the fact that KSUM has brought cultural changes among the youth with 3 respondents (8.3%) disagreeing with this fact. Also 11 respondents (30.6) were not sure about the same.

Table 4.15 Innovation cells active in various institutions

Cells	No of respondents	Rank
IIC	15	3
IEDC	29	1
ED CLUB	18	2
IEEE	8	4
Tinkerhub	8	4
Hackclub	0	6
Others	1	5

Source: Primary data

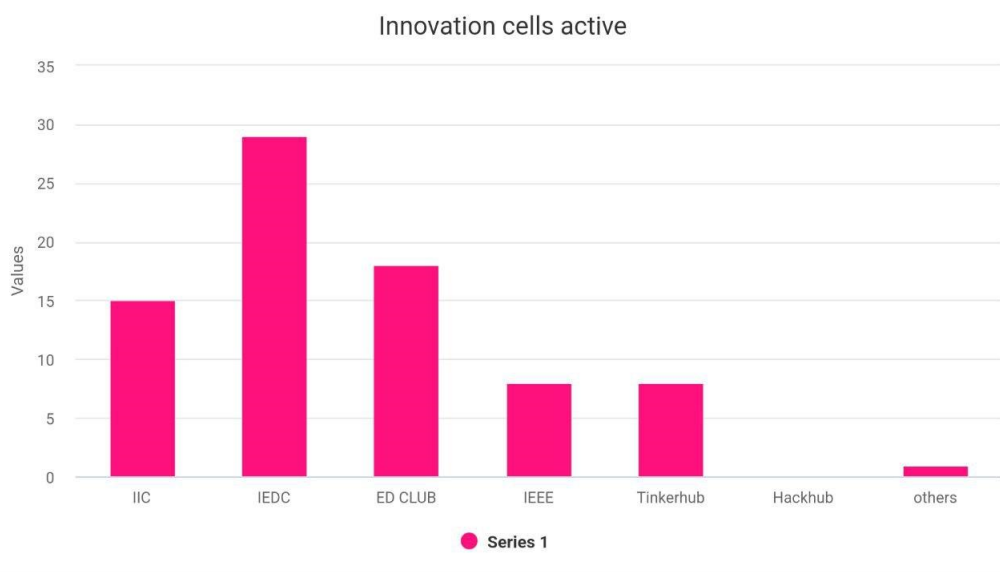


Figure 4.15 Innovation cells active in various institutions

Interpretation:

The above table 4.15 reveals that IEDC (29 respondents) is the most active cell in most of the institutions followed by IIC (15 respondents) and ED Club (18 respondents). The other cells include IEEE (8 respondents) and tinker hub (8 respondents).

Thus it can be interpreted that IEDC is the most active innovation cell within the 36 respondent institutions.

Table 4.16 Category of people using the schemes

Category	No of respondents	Rank
Students	33	1
Staff	5	3
Faculty	9	2
Others	1	4

Source: Primary data

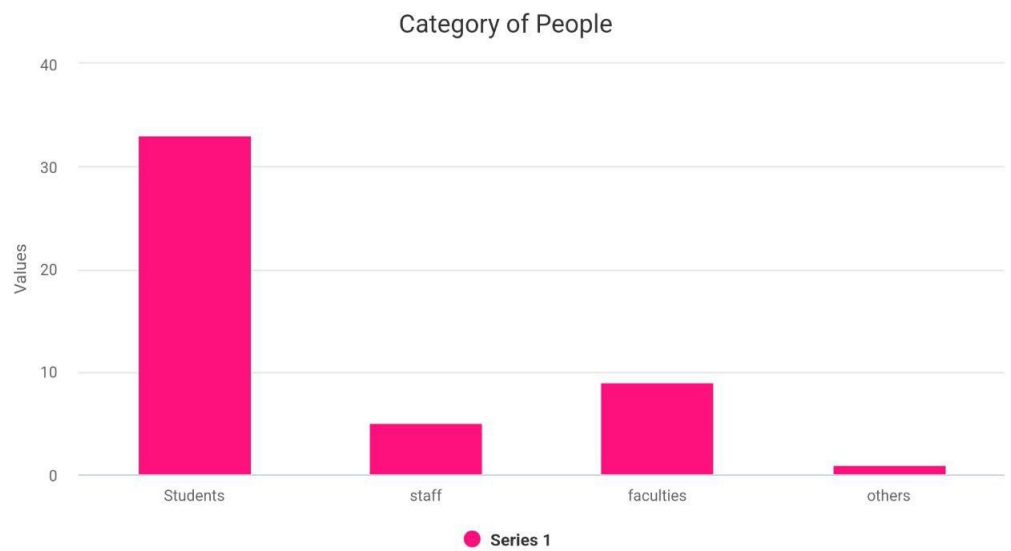


Figure 4.16 Category of people using the schemes

Interpretation:

This table 4.16 reveals that students are the largest category of the individuals making use of these schemes with 33 respondents agreeing positively. 9 respondents stated that the faculty made use of these schemes followed by staff 5 respondents and others including Alumni.

Table 4.17 Effectiveness of these schemes in promoting entrepreneurship

Level of effectiveness	No of respondents	Percentage
Not effective	1	2.9
Least effective	2	5.7
Somewhat effective	9	25.8
Effective	18	49.5
Very effective	6	16.1
Total	36	100

Source: Primary data

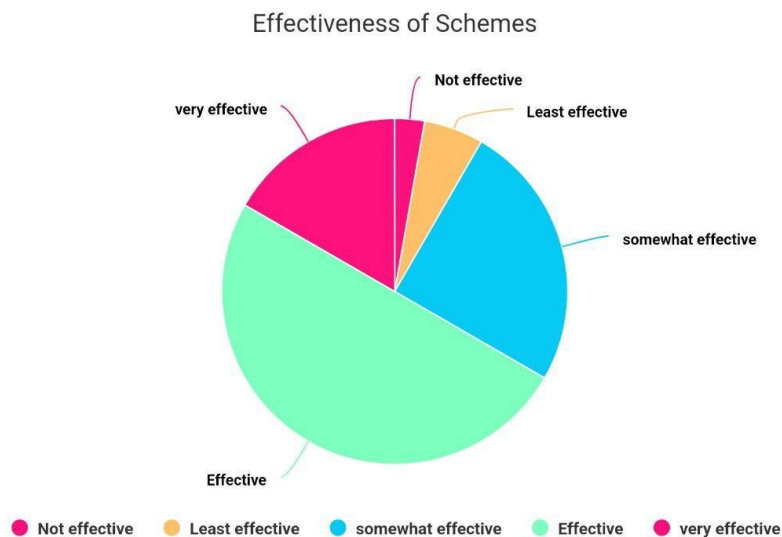


Figure 4.17 Effectiveness of these schemes in promoting entrepreneurship

Interpretation:

Table 4.17 indicates that the schemes provided by the KSUM are effective since 18 (49.5%) respondents stated that these schemes are effective. 6 (16.1%) respondents find it very effective whereas 9 (25.8%) are of the opinion that they are somewhat effective which is a positive indicator showing the overall positive impact of the schemes.

Table 4.18 Effectiveness of these schemes in supporting Entrepreneurs

Level of effectiveness	No of respondents	Percentage
Not effective	0	0
Least effective	1	2.8
Somewhat effective	13	36.2
Effective	14	38.9
Very effective	8	22.22
Total	36	100

Source: Primary data

Effectiveness of Schemes in supporting entrepreneurs

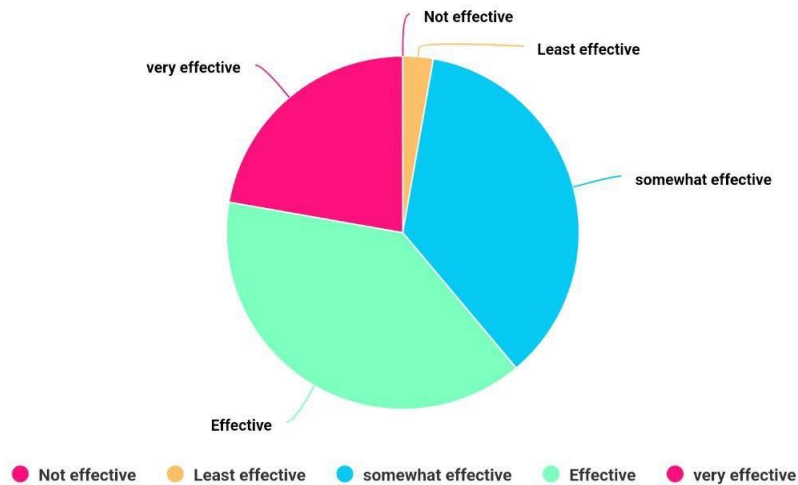


Figure 4.18 Effectiveness of these schemes in supporting Entrepreneurs

Interpretation:

From table 4.18 a possible conclusion can be made that the schemes are effective in serving their purpose of supporting the entrepreneurs as majority of the respondents (14, 38.9%) agreed with the fact the schemes are effective in supporting the entrepreneurs. 13 members (36.2%) indicated that the schemes are somewhat effective whereas 8 members (22.22%) stated that they are very effective in their aim of providing entrepreneurial support.

Table 4.19 Success rate of KSUM

Level of success	No of respondents	Percentage
Not successful	0	0
Least successful	0	0
Somewhat successful	11	30.54
Successful	15	41.77
Very successful	10	27.8
Total	36	100

Source: Primary Data

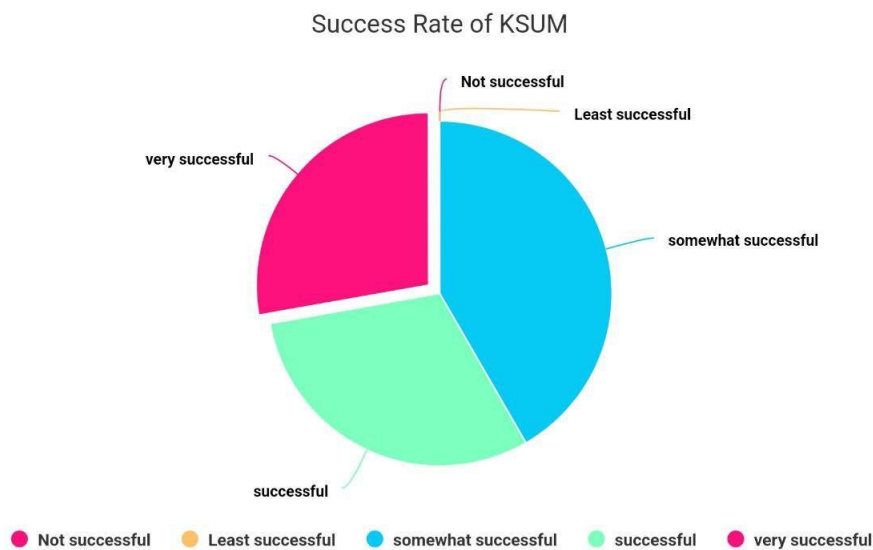


Fig 4.19 Success rate of KSUM

Interpretation:

Table 4.19 clearly interprets that the KSUM is successful. Out of the 36 respondents 15 (41.77%) responded that the KSUM is successful followed by 11 of them (30.54) agreeing that KSUM is very successful in its operations. 11 respondents (27.8) were of the opinion that it is somewhat successful which is also a positive indicator. Another point to be noted is that none of the respondents are of the opinion that the KSUM is not successful. Hence the overall success rate of the KSUM is quite high.

5.1 Summary

Entrepreneurship is the key factor for an economy to develop and become self reliant. The unavailability of resources, lack of motivation and awareness are the major hindrances in the growth of the startups. An individual can setup enterprises by making use of his entrepreneurial talents such as the willingness to face risk, innovation, creativity and also to social commitment. An entrepreneur is one of the most important segments of economic growth. Therefore initiatives should be taken to encourage startups to promote innovation, new ideas , research and development in the economic system.

Startups have become a very important engine for growth and development of any economy. Kerala Startup Mission has evolved as a solution to tackle the problems faced by startups. KSUM is the pioneer champion among incubators which functions with a vision to support and nurture the startups in Kerala. Startup Mission through its schemes and incentives provides members with the essential financial, technical and other required assistance such as high speed internet connections, legal and intellectual property services, workspace and access to high profile investors.

The variables used in the study include demographic variables like age, gender, geographical location, educational qualifications, etc. We have used both primary and secondary data. Primary data was collected by preparing and dispersing questionnaires to the target population. Secondary data was collected via online sources ,books , journals and other secondary references. These are the important findings with regards to the study on "The effect of implementation of KSUM schemes on different colleges in Kerala".

5.2 Findings

The data collected from different respondents with the structured questionnaire was analysed to find out the answers for the research questions. The following are the findings/ observations from the responses that was collected.

1. Majority of the respondents belong to the age group of 20-25 .Startup Mission mainly focuses to introduce the culture of entrepreneurship among youth.
2. Majority of the respondents are aware of the KSUM which is a positive indicator showing that KSUM is successful in its endeavours. Also the majority of the

respondents are aware of the various incentives and schemes provided by KSUM which supports the above statement.

3. The most popular schemes are ASPIRE ,NewGen IEDC and MGS. The objective of ASPIRE is to set up a network of technology, Incubation centres and to promote startups for innovation and entrepreneurship in rural and agricultural based industries. NewGen IEDC provides incentives to industries like chemicals, technology hardware, healthcare, agriculture, telecommunication, construction etc. MGS aims to support MSMEs and technology startup units through finance. It also aims to support IPR awareness workshops among various stakeholders.
4. From the data collected it is clear that the majority of the individuals, institutions and especially the budding entrepreneurs make use of the schemes and incentives provided by the Startup Mission.
5. It is evident that the major assistance provided by the schemes are through finance, technical assistance and mentorship and guidance. Also they are provided with infrastructure facilities, training and development and research assistance.
6. Among the various barriers that were faced by the respondents, the major one was found to be lack of training and mentorship to the aspiring entrepreneurs. Also they faced financial and infrastructural difficulties.
7. From the responses it can be interpreted that the corrective measures were also taken to tackle the above barriers. It included providing infrastructure facilities, training, financial and technical assistance and the other needs required by the entrepreneurs.
8. Most of the respondents agreed that the KSUM is successful in bringing cultural change to the youth as it promotes them to take up entrepreneurship as a career choice rather than going behind the traditional job practices which ultimately aids in the development of the economy.
9. The study also emphasises on the importance of innovation cells in the colleges of Kerala. The awareness and implementation of the various incentives and schemes are done through the various innovation cells active in these institutions.
10. The major innovation cells active in the respondent institutions are Innovation and Entrepreneurship Development Centre (IEDC) , Institution Innovation Council(IIC) , Entrepreneurship Development (ED) Club. The Startup Mission primarily acts through these cells.

11. The major category of people using these schemes are the students which shows that these schemes are successful in the promotion of entrepreneurship among the youth.
12. On analysing the effectiveness of the schemes it was understood that they are effective in promoting entrepreneurship and supporting the entrepreneurs.
13. A major population of the respondents indicated that the success rate of these schemes are high.
14. Thus it can be concluded that the KSUM is successful in its mission.

From the above findings it is clear that there has been a positive effect on the implementation of Kerala startup Mission schemes in various institutions throughout kerala. They are found to be useful in supporting the young entrepreneurs in colleges. The schemes provide all the necessary assistance whether it be in the form of finance or any other requirements. It is clear from the study that the Startup Mission helps the young entrepreneurs for starting their own ventures.

5.3 Recommendations

Through the findings from our study, we conclude that KSUM has an important role in promoting entrepreneurship in the colleges of kerala. On the basis of the study the following recommendations and suggestions can be given to improve its performance;

1. Entrepreneurial abilities should be nurtured from the very childhood itself. Institutions at various levels including schools, colleges etc should encourage students to polish the entrepreneurship skills inherent in them. For this startup mission can conduct workshops, programs, competitions and so on as a part of the student outreach program.
2. The startup mission provides various incentives and schemes to individuals at all levels and to cater the various needs of the budding entrepreneurs. A lack of awareness on these schemes were also noted from the study. Hence more awareness and promotion should be given so that they are properly used by the aspiring entrepreneurs. KSUM should provide space for conducting seminars, awareness programs etc.
3. Advertisements through various media such as online platforms, newspapers, etc should be made since they will create more knowledge among people about KSUM and its benefits thereby attracting more entrepreneurs to KSUM.

4. Internship opportunities should be provided by KSUM for students at the college level. This could help them to identify and foster entrepreneurial abilities and make them acquainted with the incentives provided by the startup mission.
5. The innovation cells are not active in various institutions. Many institutions are completely ignorant towards the establishment of these cells. Necessary steps should be taken to address this situation. More institutions should ascend to the installation of these innovation cells and should promote the participation of students in the same.
6. More initiatives shall be taken to include students of all backgrounds to see startups as a viable career part and bring in more entrepreneurs from all the genders.
7. A competitive spirit should be encouraged between the institutions and also create a room for building a strong support network for learning from each other and sharing lessons so as to promote positive growth.
8. The schemes and incentives should be made easily accessible to individuals at all levels.

5.4 Conclusion

The Kerala Startup Mission is the implementing agency of the government of Kerala for Entrepreneurship Development and Incubation activities in Kerala. The study reveals that more and more students and entrepreneurs are taking up the favours from KSUM for their entrepreneurial growth. KSUM has indeed proved to be successful in their mission and still has prospects for more growth and development.

KSUM has generated a lot of schemes and fellowship programmes to inculcate in students and academics a higher level of interest in exploring their talents. It also provides mentorship to its startups and thereby improves the performance of the startups. KSUM must indulge in activities providing more insight into the opportunities available to set up these startups for various categories of people in various institutions. Special care must be given for the diversification of different products and sectors.

The growth of the startups under KSUM helps to develop the economy and bring a favourable shift in the employment opportunities. A change in the societal Outlook should coincide with the attempts of KSUM to fuel the creation of more and more entrepreneurs.