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Entrepreneurship Development in Nagaland: Exploring the Trends

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Abstract

Entrepreneurship is a dynamic field of research in the present day, so much so that it has developed as a dynamic concept in recent years. It is identified that entrepreneurship is future oriented as it delivers key to the existing economic problems. In India, entrepreneurship undertook momentum with Dr. Viharidas Gopaldas Patel, a noted Economist who established entrepreneurship development movement in India during 1970's. In Nagaland, the government recognising its significance had declared 2010 as the "Year of the Entrepreneurs" and carried it further for another two consecutive years. Nagaland is one of the most underdeveloped states in India but it is one of the richest in natural resources. The dependency on government jobs by most of the population has infamously put Nagaland with the highest unemployment rate (25.7%) in India, according to the Periodic Labour Force Survey for 2020-21 released by the Ministry for Labour and Employment. Considering the fact that entrepreneurship can answer one of the most dreaded problems in the state by providing jobs, this is an area that calls for in-depth study leading to contextual implementation.

This study is an attempt to comprehend the scenario and emerging trends of entrepreneurship development in Nagaland through qualitative and exploratory research. Thus, to garner data for the paper, the researcher will be utilising open-ended questions to budding and established entrepreneurs in the region and also to entrepreneurship related organisation such as Entrepreneurs Associates and Department of Employment, Skill Development and Entrepreneurship, Government of Nagaland.

Keywords: Economic progress, entrepreneurship development, Nagaland, support, unemployment crisis, underdeveloped.

1. Introduction

The concept of entrepreneurship was introduced almost a century ago into economics by the great Austrian Economist, Joseph A. Schumpeter who is also known as the Father of Entrepreneurship. According to him, entrepreneurship is not only about starting a new business but that it is much more than that – (quoted) "it is the introduction of revolutionary changes in business methods and practices, including the launching of outstanding new products, production techniques, and organisational approaches." Thus, Schumpeter termed entrepreneurship as the driving force of economic progress. He was the one who gave the concept on a true entrepreneur that "true entrepreneurs are the dynamic agents of change, the visionaries who through their sheer ingenuity and diligence periodically disrupt the conventional ways of doing business" (Schumpeter, 1934).

In the modern era, one of the most succinct definitions of entrepreneurship (Eisenmann, 2013) was formulated by the godfather of entrepreneurship at Harvard Business School, Professor Howard Stevenson. He defined entrepreneurship as "the pursuit of opportunity beyond resources controlled". Professor Stevenson has defined 'Pursuit' as a singular and relentless focus whereas explained 'Opportunity' as an offering which is novel on one of more ways. He has also defined 'Beyond resources controlled' as resource constraints. He mentioned that entrepreneurs should be inventive in their approach, to be creative in their work, to grab opportunities and to be persuasive in their business pursuit. Thus, he had given a clear and practical definition on Entrepreneurship.

In India, Dr. Viharidas Gopaldas Patel, a noted Economist, pioneered the entrepreneurship development movement in India in the 1970s. He is considered as the Father of Entrepreneurship Movement in India. Since then, the entrepreneurial journey has been constant with the increase of noted entrepreneurs who have contributed immensely to the country's economy. In the present time, the Government of India's initiatives for Skill India and Make in India has created a framework for skills development and entrepreneurship in a major way. The Make in India project is one of the initiatives to encourage entrepreneurship and businesses, especially manufacturing activities. All these initiatives undertaken by the Government of India are the indicative of the positive perceptions of the Government on how entrepreneurship can contribute towards the country's economic development.

In Nagaland, there has been tremendous rise in the awareness of how entrepreneurship can help to turn about the current economic doldrums and the unemployment crisis among the youths. With the initiatives of many dynamic upcoming young men and women, a significant segment of the young population is influenced by the idea of innovation, creativity and enterprising. Likewise, many women with their zeal to be financially independent and not to be dependent on

anyone have vigorously ventured into businesses. This growing enthusiastic involvement in entrepreneurship is and will be a paradigm shift for the population that can automatically decrease their dependence on government jobs and secure employment in the private sector as well as be self-employed. Additionally, entrepreneurship has been given so much importance by the central government, the state government and the various socially conscious organisations, in the form of provision of schemes, facilities, incentives and even entrepreneurial training for its promotion. Taking into account all of these initiatives, it is imperative to explore the entrepreneurial movement in Nagaland.

2. Objectives of the study

- i. To comprehend the current scenario of entrepreneurship development,
- ii. To explore the various schemes and facilities for entrepreneurial activity and
- iii. To draw the approach and attitude of the entrepreneurs in Nagaland.

3. Research methodology

The study is qualitative and exploratory in nature. Data collection was done through survey method. The use of secondary data such as the State Human Development Report, statistics from state government and state department reports, and related research articles also form a part of the research analysis for the study.

The target population for the study is the budding and established entrepreneurs based in Nagaland, and entrepreneurship related organisations such as Entrepreneurs Associates (EA) and Department of Employment, Skill Development and Entrepreneurship, Nagaland.

4. Understanding entrepreneur and entrepreneurship

The rise of Entrepreneurship has led to the increase of research in the area which has contributed to the comprehensive understanding of Entrepreneurs and Entrepreneurship definitions. Carland (1984) has given the definition that the principal purpose of an entrepreneur is based on profit and growth. He also defined an entrepreneur as a person who established and managed a business characterised by innovation and those who employed strategic practices in the business. Carton et al. (1998) has given the definition on entrepreneurship as the quest of a discontinuous opportunity that involves an organisation creation or sub-organisation based on the participant's prospect of creation of value. Furthermore, they also (as quoted) "The entrepreneur is the individual (or team) that identifies the opportunity, gathers the necessary resources, creates and is ultimately responsible for the consequences of the organization." Thus, it can be said that those who are involve in entrepreneurship are known as entrepreneurs. As a result, it can also be concluded that entrepreneurship can be termed as the ways where new organisations are created with the initiative for wealth and job creation.

Bhargava (2007) has stated about entrepreneurship in India based on hereditary which was during many decades ago. It is also indicated that there are some communities in India who are termed as the entrepreneurial communities. However, the paper concluded through evident in the present times that entrepreneurship does not belong to anything or anyone in particular nor is it based on the region, educational or income level, age, or community. Remarkably, Sikalieh et al. (2012) specified that entrepreneurship is not for lazy people since it is an exceedingly busy area. Thus, they stated that managing time well and observing definite schedules and deadlines is what made entrepreneurs extremely busy and hence may lead to their success. To continue with understanding entrepreneurship, it has been brought out in their research paper that entrepreneurship is a way of managing huge businesses so that work becomes a positive and happy experience towards their societal contribution. And that it is not only about amassing the level of organisation's innovation and productivity (Alam & Mohiuddin, 2014).

Delving further into understanding the theory of Entrepreneur and Entrepreneurship, Alam and Mohiuddin (2014) had cited that leadership, innovation, enterprise, hard work, vision and maximisation of profits are the fundamental qualities that should be incorporated by an entrepreneur in their entrepreneurial journey. They also mentioned that an entrepreneur should be a capable motivator that wants to bring change into the society for the betterment of all. They further went on to mention that an entrepreneur should be someone who is committed to growth - a catalyst to change and development. Additionally, Palanivelu and Manikandan (2015) stated that the attitude and the mindset also determine entrepreneurship. It should be someone who takes calculated risks, someone who sees opportunities where others could not see and someone who has the endurance to work out ideas. From the human behavioural aspect, Mwatsika et al. (2018) has indicated that entrepreneurship involves doings and decisions which is taken intentionally for the value creation of socioeconomic which can be done independently or in existing organisation, that is in uncertainty conditions. Lastly, Litau (2019) also write about entrepreneurship becoming more important for the economy because of the development of entrepreneurial mindset and the mounting concern for it which is due to the role of technology expansion and immense economic growth.

It is within this context of understanding the definitions and scope of the entrepreneur and entrepreneurship that this paper seeks to study the entrepreneurial trends in Nagaland, a small state in India noted for her long history of struggle for independence; ongoing now for more than 70 years, and recognised as the longest running nationalist movement in recorded history. The prolonged conflict coupled with the fact that the Nagas are still dominantly a tribal community has led to many developmental constraints and particularly so in the economic sector. With state Government in a perpetual cash strapped condition, and with unemployment problem at crisis level especially among the youth, we would look to Entrepreneurship as one of the most effective solutions to a more prosperous community.

5. Current scenario of entrepreneurship development in Nagaland

Nagaland is situated in the north eastern part of India and is bordered by the states of Assam, Manipur, Arunachal Pradesh and the country Myanmar (Burma) in the north western part. Nagaland is a mountainous state with the rising altitude from the Brahmaputra Valley in Assam with the elevation of 3840 at Mount Saramati. As per 2011 census, Nagaland has a population of 19,78,502 with 71 percent in the rural areas and 28.86 percent in the urban areas. There are 16 districts headquarters in Nagaland.

One of the factors that can be considered to determine the trends of growth of Entrepreneurship in the state is to identify the number of entrepreneurs existing, before and after 2010. Ironically, there are no available sources or information on the numeral figures of Entrepreneurs in Nagaland. However, there were data available on Self-Employment in the Annual Employment Review 2018-2019, Government of Nagaland, conducted by Department of Employment, Skill Development and Entrepreneurship which highlight the details based on educational level and district wise comparison of the years between 2017 and 2018.

It is imperative to differentiate between a self-employed person and an entrepreneur, with some scholar who mentioned that a small-business owner or a self-employed can be both considered as an entrepreneur. Though, there can be the main differentiation in terms of the desire and the ability to grow, or based on innovation and the aspect of reward. In addition, the difference between an entrepreneur and a self-employed person has been the topic of studies and debates for years now. When some are categorised as small business owners, it has been said that not all self-employed persons are entrepreneurs but all entrepreneurs are self-employed. Though, many have categorised entrepreneurs and self-employed persons or small business owners synonymously, with the connection of owning a business, being self-employed, giving employment and venturing into an independent domain. Thus, the researcher has, with the belief that the statistics on the Self-employment will give an indication of the entrepreneurial movement in Nagaland.

It is to be noted that the data are based on the applicants registered for self-employment. The data might not give a concrete conclusion on the total number of entrepreneurs in the state. On the other hand, the data available on Self-Employment can give a representation in comprehending the setting of emerging entrepreneurs in Nagaland. From the two tables shown below, it depicts an overwhelming picture on the substantial increase of self-employed persons in Nagaland within a span of one year only. Thus, we cannot deny the pragmatic shift in the mindset of Naga people becoming more self-sufficient and less dependent on government jobs, and in developing the culture of venturing out.

Table 1: Applicants Registered for Self-Employment (Educational Level) during the Year 2017 & 2018

Educational Level	Registration during the year		Percentage changes 2018/2017
	2017	2018	
Below Matric	264	559	111.7
Matriculate	315	690	119.05
Pre-University	98	232	136.7
Graduate	87	204	134.5
Post Graduate and Above	6	13	116.7
Total	770	1698	120.5

Source: Annual Employment Review 2017-18, GoN

Table 2: Applicants Registered for Self-Employment (District-Wise) During the Year 2017 & 2018

District	Registration during the year		Percentage changes 2018/2017
	2017	2018	
Kohima/Peren	194	349	79.9
Dimapur	187	575	207.5
Mokokchung/Longleng	111	230	107.2
Mon	105	247	135.2
Phek	77	69	-10.4
Tuensang/Kiphire	4	-	-
Wokha	34	92	170.6
Zunheboto	58	136	134.5
Total	770	1698	120.5

Source: Annual Employment Review 2017-18, GoN

6. Provisions and initiatives for entrepreneurship development in Nagaland

There have been numerous supports extended in the form of schemes, policy measures, incentives, facilities and amenities for entrepreneurial activity in Nagaland by the Government as well as by socially conscious private organisations. This study focuses on a few distinguished ones as below:

A. Year of the entrepreneurs 2010

This was a major milestone when the Government of Nagaland declared 2010 as the "Year of the Entrepreneurs" where Rs. 10 Crore was to be used as seed money for the selected entrepreneurs. The following number of entrepreneurs/beneficiaries were selected and financed through the following programmes:

Table 3: Beneficiaries and Promoting Organisations of the Year of Entrepreneurs

Sl.	Promoting Organisations	Number of Entrepreneurs/Beneficiaries
1	Industries (PMEGP)	342
2	NHHDC	85
3	NIDC	49
4	Directly financed by Banks	168
5	Other Allied Departments	122
	TOTAL	766

Source: Annual Report of Department of Industry and Commerce, GoN

B. Nagaland Start Up Policy 2019

This ambitious Policy was introduced in June 2019 for a period of 5 years with the following objectives:

- a favourable atmosphere for local entrepreneurs,
- opportunities for jobs and,
- create an entrepreneurial culture in the State.

For the implementation of the Start-Up Policy in Nagaland, the Department of Industry and Commerce has been appointed as the Nodal department. The table below highlights some of the remarkable features of the Policy towards entrepreneurship development in Nagaland.

Table 4: Notable Components of the Start-Up Policy in Nagaland

Sl. Notable Components from the Policy

To focus on 'Made in Nagaland' products and services by facilitating the growth of 500 start-ups in the next five years.

- 2 To establish a world class state incubator in partnership with global leaders.
- 3 25% of the fund was to be used for promoting start-ups by women entrepreneurs in the state.
- Various incentives such as GST Reimbursement, Stamp Duty Reimbursement, Digital upgradation Subsidy, Broadband Connectivity, Power Subsidy, Reimbursement of Patent Filling Cost, Marketing and Promotion Assistance, Regulation and Encourage Public Procurement were to be provided.
- To create innovative culture in Education System by embedding entrepreneurship modules in syllabus (school, college, university), to establish skill & vocational training institutes and establish Entrepreneurship Development Centres (EDC) in schools and colleges.

Source: Department of Industry and Commerce Website, GoN

C. Schemes and Activities under the Nagaland State Department of Employment, Skills Development and Entrepreneurship (updated January 2022)

The Nagaland State Department of Employment, Skills Development and Entrepreneurship has been instrumental in imparting trainings and supports for young generations by focusing on skilling so as to prepare and mould them to be employable and to facilitate them to venture out. Table 5 highlights some of the important components from their schemes and activities which are promoting entrepreneurship development in the state.

Table 5: Important Components from the Schemes and Activities which are Promoting Entrepreneurship in Nagaland

Sl.	Schemes and Activities	Objectives/Components	
1	Craftsmen Training Scheme (CTS)	To impart skill-oriented training to college	
		and school drop outs for employment and	
		self-ventures.	
2	Apprenticeship Training Programme	To impart practical training towards skilled	
		manpower for industry.	
3	Pradhan Mantri Kaushal Vikas Yojana	To impart industry relevant skill training	
	(state managed)	for better livelihood.	
4	Entrepreneurship Development Centre	To promote youth participation in self-	
		employment ventures.	
5	National Career Service Center for	One of the components of this activity is to	
	Differently Abled	provide guidance and counselling for	
		training and self-employment for the	
		Differently Abled.	

Source: Department of Employment, Skills Development and Entrepreneurship Website,

D. The Entrepreneurs Associates (tEA), Nagaland

The Entrepreneurs Associates (tEA), the premier social entrepreneurial organisation based in Nagaland has been influential since its inception in 2000 in promoting Entrepreneurship and developing sustainable livelihood measures in Nagaland and other North Eastern states of India at the grass root level. The tEA has focused on economic development and increased participation of local people in the economic activities of the states for social equity and harmony. The Table 6 highlights some of the activities and support extended towards entrepreneurship development in Nagaland by tEA:

Table 6: Select activities and support extended towards entrepreneurship development in Nagaland by The Entrepreneurs Associates

<u> </u>	The Entrepreneurs Associates			
Sl.	Programmes/Activities	Objectives/Components		
1	Start-up Village Entrepreneurship	- To provide training and credit support to		
	Village Programme (SVEP)	workers in small scale and skilled industries.		
		- To elevate poverty among the rural poor by		
		helping them set up businesses and providing		
		support till it stabilise.		
		- The SVEP was launched in November 2015		
		in both Jakhama and Chumukedima Blocks		
		with Entrepreneurs Associates as the Project		
		Implementing Agency (PIA).		
		- As of July 2019, SVEP has reached out to		
		over 3000 Entrepreneurs in both blocks. EA		
		has supported them by providing training,		
		financial linkage and mentorship.		
2	Incubation	- To provide self-awareness, knowledge,		
		education, access to finance among others in		
		entrepreneurship.		
3	Mentoring	- To sustain local entrepreneurs.		
		- To provide mentorship informally through		
		site visits, face-to-face discussions and other		
		business services.		
4	Trainings	- To provide Basic Entrepreneurial Skills		
		Training (BEST) for aspiring entrepreneurs		
		and start-ups.		
		- Provides Basic Business Skills Training		
		(BBST) for entrepreneurs with less or no		

education.

-Provides Business Growth Training (BGT) aimed to maximise growth for existing entrepreneurs.

Source: Entrepreneurs Associates (EA) Website

7. Findings

Based on the data available on Self-Employment registers, it depicts an overwhelming trend in entrepreneurship gaining ground with the substantial increase in numbers viz. 120 percent increase in self-employed persons in Nagaland within a span of one year only. This clearly illustrates the pragmatic shift of Naga people becoming more self-sufficient and developing the culture of enterprising.

The analyses of the numerous initiatives undertaken in the form of schemes, policy, incentives, facilities and amenities for entrepreneurial activity in Nagaland by the Government as well as by socially conscious private organisations also portray the concern towards increasing entrepreneurial activity in the state.

Table 7 illustrate the views and understandings of entrepreneurship in Nagaland, based on the questionnaire administered to a few select entrepreneurs and organisations related to entrepreneurship development in Nagaland and also to some youth who are interested and preparing to venture out in the future.

Table 7: Perceptions and Insights on Entrepreneurship in Nagaland

Reasons for becoming an entrepreneur To work in a space of freedom.	Qualities needed to become an entrepreneur • Consistency.	 Reasons why Youth are reluctant to venture out Want security viz. a Government job.
• To provide employment.	• Sacrifice.	 No knowledge about running a business.
• To convert ideas into actions.	• Invest in learning about business.	• Scared to take risk.
• Due to unemployment and poverty.	• Patience.	• The society especially the parents does not encourage it.
• Influenced by	Thorough	Complicated financial

technological advancement.

knowledge about the market scenario.

linkages.

- To be self-dependent.
- Spirit and zeal to compete with others.
- Ignorant of government supports and schemes.

To create opportunities for others.

 Knowledge about finance and credit linkages. Lack of guidance.

Source: Primary data

8. Recommendations

During the data collection, it was seen that there were no adequate sources or information on the numeral figures available on Entrepreneurs in Nagaland. Thus, it would be favourable to conduct a survey by the concerned state department for accurate data. To make the survey feasible, it can be implemented by using the following 'suggestive' factors such as district wise, age groups, gender, educational qualification, skilled/unskilled, type of industries/business, products, agricultural/non-agricultural, rural/urban and the number of years in existence.

It is to be noted that the last two years of Pandemic had affected the mind-set of many, those who have and those who wants to start a business. Thus, it would be imperative to do a study on the environment of entrepreneurship post Pandemic especially in Nagaland or North Eastern region.

Recommended that more intensive research be done on the impact of the schemes such as Year of the Entrepreneurs, Nagaland Start-up Policy 2019 and the various initiatives undertaken for entrepreneurship development in Nagaland.

The need of the hour to overturn economic down spiralling and open viable employment opportunities is to continue to encourage the growth of entrepreneurship. Therefore, it is recommended that more efforts and supports need to be continued by the government, financial institutions and other related organisations.

9. Conclusion

This study clearly asserts the immense wave of entrepreneurial spirit in Nagaland through the support provided by the government and the private organisations, by the concerned individuals, and by the ardour shown by the existing entrepreneurs and the enthusiasm by the future entrepreneurs.

Yet, paradoxically, Nagaland still suffers from heavy leaning on government jobs, consequently leading to a restricted job market. According to the Periodic Labour Force Survey for 2020-21 released by the Ministry for Labour and Employment, Nagaland has the highest unemployment rate (25.7%) in India. Most have kept entrepreneurship as their last option to survive and sustain

instead of growing and expanding into major business houses that can compete nationally and globally.

Despite of it all, we can end on a positive note that times are changing and that there is an increasing shift in the people's mind-set especially among the youth in Nagaland. The influences by the social media platforms and also by the global outlook towards financial independence are considered as some of the contributing factors in the changed perception towards entrepreneurship in Nagaland. The real challenge remains, as to how they would make those dreams into reality and how they can overcome the trial of keeping up with the changes and most importantly, being consistent. It can be concluded that for entrepreneurship development to take place in a systematic process in Nagaland, not only the government but the socially conscious organisations like the NGO's, churches, civil societies and even the family circle can play an indispensable part in shaping and moulding the essence of entrepreneurial aspirations of the youth and the future generations.

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Digital Skills of Teachers in East and West Garo Hills Districts of Meghalaya: A Comparative Study

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Abstract

The study aims to find the digital skills of secondary school teachers in two districts of Garo Hills, Meghalaya, India and check if there is any significant difference in the skill level among the teachers working under Government, Deficit, Adhoc and Private schools. The study used a self-prepared tool based on the 'DigComp' framework developed by the International Telecommunication Union (ITU). The factors are adapted from Van Laar et al. (2020) which includes technical, information and communication, creative, critical thinking, and problem-solving skills to find out the digital skill level of secondary school teachers. It was observed that the current digital skill level in these two districts of the Garo Hills region is at an intermediate level. Comparisons were made between the digital skill levels of each category of schools and found that Private and Adhoc teachers' digital skill level was better than the other categories. This study would help to initiate future training sessions or teacher appraisal programmes to promote integrated learning in schools.

Keywords: Competency, digital, digital skill, ICT, integrated learning, skill.

1. Introduction

Technology has become a part of our day-to-day life. It influences us in every work we do. Education is a field where technology is significantly impacted. Though technology is a good thing, the investment would not benefit the greater mass if one cannot utilise it to its full potential. School is an essential part of education where various teaching communities work.

Each has a distinct way of dealing with technology. The study aimed to see how, in the remote areas of Meghalaya, India, the teachers fare in their skill to use digital gadgets, which could further help to initialise any appraisal programme by the authority.

2. Review of literature

With the growth of virtual technologies and the speedy changes they advance through time, users are challenged with new cognitive, social, and ergonomic demanding situations they want to grasp to perform effectively. In recent years, following empirical reviews on performance differences among distinct age groups, there may be a debate in the research literature concerning the nature of these variations: whether or not they reflect age-related cognitive capabilities of the users or that they may be related to the usability and revel in of customers with the technology (Eshet-Alkalai & Chajut, 2010). The digital and social fields relate to economic, cultural, social, and personal areas. Access, skills, and attitudinal aspects mediate digital activities. This study aimed to identify the current digital skill level of the teaching community concerning the use of essential digital tools. For this study, the following reviews were done on each theme.

2.1 Technical skill

For developing good software, it is necessary to have proper technical skills. Educators should possess various technology skills to perform their duties. It is also required for educators to equip themselves with adequate digital skills to teach using integrated methods (Parrot & Kok, 1997; Turner, 2005; Had & Rashid, 2019).

2.2 Information and communication skill

Searching for information in this modern world is challenging, especially for young minds, and it is about automating rather than transforming (Leidner & Jarvenpaa, 1995). During the pandemic of Covid 19, the teaching community used digital tools for searching, analysing, and creating educational study materials and communicating with the learners. The rising use of mobile devices will present various challenges to the communication process (Masterman, 1985). The most important validation of expressing one's true self would be communicating.

2.3 Creative skill

There is a need for innovation in education change, according to Fullan's study (1989). Grunberg and Summers (1992) discuss the issues while implementing innovations in schools and states that innovation would be one of the changes in education. Barna and Epure (2020) suggest the future relevant creation for developing digital skills would be private sector initiatives enhancing youth digital skills for employability. Handley (2018) considers projects by national

organisations to improve digital literacy by executing institutional programmes as positive. Shakina et al. (2021) opined that digital innovation may have a life cycle period.

2.4 Critical thinking skill

According to Potter (2008), a self-assessment tool is a helpful structure to measure the performance of students or pre- and in-service educators. Ilgan et al. (2015) differentiate and show that there is a relationship between the psychological well-being of a teacher and the quality of school work life. Różewski et al. (2019) suggest that selecting resources that best fit a user's digital profile should be used in measuring digital competency using the Dig Comp framework.

2.5 Problem solving skill

Zeitoun (2008) points out that a digitally literate person must be able to deliver learning content via electronic media that suits the environment. Mascarenhas (n.d.) considers developing soft skills as part of a teaching community would enhance learning. Kumari et al. (2017) explored the content of soft skills and opined that lack of quality among teachers is associated with inadequate employability and soft skills. Bawden (2008) thinks that correct and sensible behaviour will help improve digital literacy as a moral dimension, which can reflect how a person sets privacy and security in their digital gadgets. Proctor and Dutta (1995) state that good behaviour is acquired through practice. Gini et al. (2007) think aggressive behaviour will impact young people's decision-making difficulty. Baartman and Brunijn (2011) mention that critical self-reflection and openness are necessary to integrate knowledge, skill, and attitude. Blizzard and Abhigyan (2017) point out that the use of technology is influenced by the type of school and stream in which the teacher works.

From the above literature review, it is assumed that future education will be integrated with ICT. To get the optimal experience in teaching-learning using ICT, each teacher has to be digitally competent. A self-assessment survey measuring their cognitive digital skills is conducted in East Garo Hills (EGH) and West Garo Hills (WGH) districts with the following objectives to compare the present cognitive digital skills of the teachers in Garo Hills.

3. Objectives of the study

- i. To find out the digital skills of secondary school teachers and
- ii. To compare the digital skills of teachers in different categories of schools in East Garo Hills (EGH) and West Garo Hills (WGH) districts of Meghalaya.

4. Methodology

Using a random sampling method, 11 secondary schools from East Garo Hills and 12 schools from West Garo Hills were selected. The sample data consists of 214 respondents from these

schools chosen from the four categories of schools viz. Private, Adhoc, Deficit, and Government schools. For this study, a questionnaire-based survey method is used. After informing and receiving the permission of the Head of the institute, a semi-structured questionnaire having 24 items was prepared by the researchers and distributed to the teachers of the selected schools. All secondary and higher secondary school teachers are included as respondents. The questionnaire tool was prepared based on the DigComp framework, designed by the International Telecommunication Union (ITU). The crafted device has five factors: Technical Skills, Information and Communication Skills, Creative Skills, Critical Thinking Skills, and Problem-Solving Skills. It has a reliability coefficient by Cronbach's alpha of 0.964. It uses Lickert's scale like rating which record the skill level using Very Efficient (5) to Poor (1). Mean and Standard Deviation are calculated. Mean Rank, correlation, t-test and Duncan Post Hoc Test are used for analysis.

5. Data analysis and discussion

5.1 Demographic Profile

An individual's demographic profile provides helpful information to understand the characteristics of the respondents and the management types of the schools they work in. The data analysis and interpretation below are related to significant aspects of the respondent's gender, age, education, experience, and digital skill-related queries.

5.1.1 Management type of the schools

Table 1: Comparing Management Types of the Districts

Management Type	District(s)		Total
	EGH	WGH	
Private	20 (19%)	41 (38%)	61
Adhoc	12 (11%)	40 (37%)	52
Deficit	51 (48%)	16 (15%)	67
Govt	18 (17%)	10 (9%)	28
Other	6 (6%)	0 (0%)	6
Total	107	107	214

Source: Researchers' calculation

Table 1 explains the management type of the school where the respondents work. In EGH, 19% work in private schools, whereas 38% work in WGH. The percentage of respondents working in

Adhoc schools is 11% in EGH, whereas in WGH, 37% are working in Adhoc schools. The highest number of teachers work in Deficit schools, 51% in EGH but only 15% in WGH. The respondents working in Government schools in EGH is 17%, whereas in WGH it is 9%. The number of teachers working in Deficit schools in these two districts is the highest, and Private schools are in second place. Government schools are significantly fewer; as only few Government schools exist in these districts. Private schools are run either by an individual or a committee.

5.1.2 Location of the schools

Table 2: Location of School Building

Location	District(s)		
	EGH	WGH	
Rural	89 (83%)	12 (11%)	101
Urban	18 (17%)	95 (89%)	113
Total	107	107	214

Source: Researchers' calculation

Table 2 identifies the location of the school buildings to which the respondents belong, either in rural areas or urban areas (characterised by the municipal council). 83% responded that the school is located in a Rural area under EGH and 11% in WGH. In EGH, 17% of the schools are located in Urban areas, whereas 89% are in WGH.

5.1.3 Educational qualification of the respondents

Table 3: Educational Qualification of the Teachers

Qualification	District(s)		
	EGH	WGH	
Graduate	54 (50%)	41 (38%)	95
Post Graduate	41 (38%)	57(53%)	98
Other	12 (11%)	9 (8%)	21
Total	107	107	214

Source: Researchers' calculation

Table 3 explains the educational qualifications of the respondent teachers. 50% of the respondents in EGH are graduates, 38% are postgraduates and 11% are having other types of qualification. In WGH, 41% of teachers have graduate, 53% have post-gradute and 8% have

other educational qualifications. Other qualification includes such as Normal Train, HSLC, HSSLC, diploma in a vocation, etc.

5.1.4 The number of teachers according to age groups

Table 4: Distribution of Teachers with Age Groups

Age groups	I	Total	
	EGH	WGH	
Below 25	1 (1%)	6 (6%)	7
25-30	8 (7%)	30 (28%)	38
31-40	34 (32%)	31 (29%)	65
41-50	34 (32%)	31 (29%)	65
Above 50	30 (28%)	9 (8%)	39
Total	107	107	214

Source: Researchers' calculation

Table 4 shows the age groups of the respondents working in the four categories of schools. In EGH, the maximum number of teachers are in the age group 31-40 and 41-50 with 32%, and the second highest are in the age group >50 with 28%. The third group is 25-30, with 7%. In WGH, the maximum number of teachers is in the age group 31-40 and 41-50 with 29%, and the second highest number of teachers is in the age group 25-30 with 28%.

5.1.5 The number of teachers according to gender

Table 5: Number of Teachers According to Gender

	<u> </u>	<u> </u>	
Gender		District(s)	Total
	EGH	WGH	
Male	59 (55%)	41 (38%)	100
Female	48 (45%)	66 (62%)	114
Total	107	107	214

Source: Researchers' calculation

Table 5 shows the gender-wise distribution of the teachers working in the schools of EGH and WGH respectively. In EGH, 55% of the teachers are male and 45% are females, whereas in WGH, 38% are male and 62% are female. It shows that in EGH, the number of males is more than that of the females, whereas in WGH, the number of females is more than that of the males.

5.1.6 The number of teachers as per employee status

Table 6: Number of Teachers as Per Employee Status

Employee Status		Total	
	EGH	WGH	
Private	22 (21%)	48 (45%)	70
Adhoc	11 (10%)	34 (32%)	45
Deficit	50 (47%)	16 (15%)	66
Govt	18 (17%)	9 (8%)	27
Other	6 (6%)	0 (0%)	6
Total	107	107	214

Source: Researchers' calculation

Table 6 explains the status of the teacher's employment. In Meghalaya, schools are divided into various categories, and this study took up four main types (Private, Adhoc, Deficit, and Government), with the rest kept in others. The number of teachers working as private in EGH is 21%, whereas it is 45% in WGH. Only 10% of teachers are under the Adhoc category in EGH, whereas 32% in WGH. In EGH, 47% of teachers are in deficit, the highest number of teachers in the districts, whereas in WGH, only 15% are in deficit. In EGH, 17% are in Government, whereas in WGH, it is 8%. It is also observed that 6% of EGH teachers are in the 'other' category, which may be categorised as contractual, part-time/temporary, etc.

5.1.7 Data distribution according to experience in years

Table 7: Number of Teachers According to Experience in Years

Experience (in years)		Total	
	EGH	WGH	
Upto 5	39 (36%)	37 (35%)	76
6-10	12 (11%)	21 (20%)	33
11-15	13 (12%)	18 (17%)	31
16-20	8 (7%)	15 (14%)	23
Above 20	35 (33%)	16 (15%)	51
Total	107	107	214

Source: Researchers' calculation

Table 7 shows the distribution of teachers according to their experience in teaching with percentage. In EGH, 36% of the teachers have experience of above 20 years, whereas in WGH, it is 35%. In EGH, the second highest experience group is 11-15 years with 12%, but it is 20% in

WGH with 6-10 years. The third highest group of experience is 6-10 years in EGH with 11%, whereas it is 17% in WGH with 11-15 years.

5.1.8 The number of teachers as per their residence

Table 8: Number of Teachers as Per Their Residence

Residence	Distric	Total	
	EGH	WGH	
Rural	88 (82%)	15 (14%)	103
Urban	19 (18%)	85 (79%)	104
Semi-urban	0 (0%)	7 (7%)	7
Total	107	107	214

Source: Researchers' calculation

Table 8 shows the location of the teacher's residence. In EGH district, the maximum number of them reside in Rural areas, with 82% and in the case of WGH the maximum of them reside in urban area with 79%. In the case of EGH, 18% of teachers reside in Urban area. whereas 20nly 14% reside in Eural area in WGH. 7% of teachers in the case of WGH live in the Semi-urban area.

5.1.9 The number of teachers who took a course in computer

Table 9: Number of Teachers Who Took a Course in Computer

Computer Course	Distric	Total	
	EGH	WGH	
Yes	11 (10%)	42 (39%)	53
No	96 (90%)	65 (61%)	161
Total	107	107	214

Source: Researchers' calculation

Table 9 shows how many teachers took a computer course that could directly contribute to their digital skill level. It was found that 90% of the employees did not have a computer course in EGH whereas 61% of the teachers in WGH. In EGH, 10% of teachers took a kind of computer course and in WGH, 39% of them took a course in computer.

5.2 Mean and standard deviation of factors

By adapting the tool which was used by Van Laar et al. (2020) for surveying digital skill and 21st century skills of employees, the following variables are designed to survey the digital skills of teachers in the two districts. The factors are as Technical Skill, Information and Communication Skill, Creative Skill, Critical Thinking Skill and Problem-Solving Skill.

Table 10: Mean and Standard Deviation by Independent Samples t-test

Factors of Digital Skill	Eas	East Garo Hills		st Garo Hills
	Mean	Std. Deviation	Mean	Std. Deviation
Technical Skill	15.46	2.92	17.79	5.19
Information & Communication Skill	11.70	3.28	14.93	3.92
Creative Skill	9.59	3.65	12.68	5.02
Critical Thinking Skill	6.32	3.31	8.93	3.95
Problem-Solving Skill	10.21	5.48	14.1	6.21
Digital Skill	53.27	16.24	68.44	21.06

Source: Researchers' calculation

The 24 items in the questionnaire are divided according to the five factors related to digital skills (Van Laar et al., 2020). The mean scores are shown in Table 12. The highest mean scores in both districts are 15.46 in EGH and 17.79 in WGH respectively. They pertain to technical skills which fall in the Basic Skill Level in DigComp. Here, WGH teachers have slightly better skills than EGH teachers. In Information and Communication Skills mean of EGH is 11.70 whereas that of WGH is 14.93 that is slightly better. In Creative Skills, the means are 9.59 in EGH and 12.68 in WGH, which are at the Basic Level. In Critical Thinking Skills, EGH teachers have mean 6.32 and that of WGH teachers is 8.93. But both are below-average skill scores and are at the Basic level. In Problem-Solving Skills, EGH teachers have the mean 10.21 at the Basic level, whereas WGH has a mean of 14.10, which are also below the average. However, the standard deviation of the score in EGH is lower than that of WGH teachers. Since their total mean scores are 53.27 in EGH and 68.44 in WGH, their skill level is intermediate.

5.3 Mean rank of the teachers working under different categories of schools

Table 11: Kruskal-Wallis Test for Mean Rank Comparison Among Employee Status

Skill Group	Private	Adhoc	Deficit	Government	Other	Chi-	P value
						Square	
	70	45	66	27	6		
Technical Skill	124.01	111.34	97.09	93.48	63.58	11.52	.021
Information & Communicati on Skill	117.86	117.56	93.70	108.63	57.83	10.37	.035

Creative Skill	113.90	120.82	98.18	98.93	74.00	6.65	.155
Critical Thinking Skill	110.31	124.90	99.05	99.46	73.42	7.40	.116
Problem- Solving Skill	117.11	128.91	91.56	94.89	66.92	15.30	.004
Digital Skill	116.41	122.56	94.89	100.26	62.00	10.48	.033

Source: Researchers' calculation

The mean ranks of teachers' scores on their digital skills who are working in different categories of schools were checked using the Kruskal Wallis Test. It is found that in all the skill types, teachers who are working in Private and Adhoc schools scored better with 124.01 and 111.34 in technical skills, 117.86 and 117.56 in Information and communication skills, 113.90 and 120.82 in Creative skills, 110.31 and 124.90 in Critical thinking skills, 117.11 and 128.91 in Problem-solving skills. Deficit schools and Governemnt schools teachers score fairly similar in all the factors but lower than that of private and Adhoc schools. The degree of freedom for the data is 4.

5.3.1 Duncan Post Hoc test for mean

Table 12: One way ANOVA and Duncan Post Hoc Test for Mean Among Employee Status

Employee Status	N	Duncan Mean Scores
Other	6	46.50 ^a
Deficit	66	56.00 ^{ab}
Government	27	56.63 ^{ab}
Adhoc	45	65.22 ^b
Private	70	65.49 ^b

Sig. (p) value of a = .132, b = .175

Source: Researchers' calculation

Further, we tried to clarify if there is any significant difference among the teachers in their digital skills using the Duncan Post Hoc Test. It also pointed out that Adhoc and private teachers significantly differ in their digital skills compared to other category teachers. (Harmonic Mean Sample Size = 19.58).

5.3.2 Mann-Whitney test for mean rank among employee status

Table 13: Mann-Whitney Test for Mean Rank Among Employee Status

Factors	District(s)	N	Mean Rank	Sum of Ranks
Technical Skill	EGH	107	90.84	9720.00
2 00 2	WGH	107	124.16	13285.00
	Total	214		
	EGH	107	81.74	8746.50
Information & Communication Skill	WGH	107	133.26	14258.50
	Total	214		
Creative Skill	EGH	107	86.79	9286.00
Creative Skiii	WGH	107	128.21	13719.00
	Total	214		
Critical Thinking Skill	EGH	107	87.65	9379.00
Critical Timiking Skin	WGH	107	127.35	13626.00
	Total	214		
Problem-Solving Skill	EGH	107	84.42	9032.50
1 Toolem-Solving Skin	WGH	107	130.58	13972.50
	Total	214		
	EGH	107	83.80	8967.00
Digital Skill	WGH	107	131.20	14038.00
	Total	214		
		l.		

Source: Researchers' calculation

Mann-Whitney test shows better mean rank in WGH than EGH. In Technical skill, EGH has mean rank 90.84 and WGH has 124.16. In Information and Communication, EGH has 81.74 and WGH has 133.26 mean ranks. In Creative skill, EGH has 86.79 and WGH has 128.21 mean ranks. In Critical-thinking skill, EGH has 87.65 and WGH has 127.35 and in Problem-solving skill, EGH has 84.42 and WGH has 130.58 mean ranks. In overall, EGH has mean rank of 83.80 whereas WGH has mean rank of 131.20.

6. Conclusion

The study was conducted in the two districts of Garo Hills. The respondents were the teachers of various categories of schools such as Government, Deficit, Adhoc and Private. Some of the teachers who did not fall into any one of these categories were put under 'other' category. Maximum schools are located in Rural areas in East Garo Hills whereas in West Garo Hills maximum schools are located in urban areas. The qualifications of the teachers are either Graduate or Post Graduate with ages between 25 to 50 years. Both male and female teachers were considered. In EGH, the maximum number of teachers were from the Deficit category and in WGH, the maximum number of teachers were from the Private category. In both districts, the maximum teachers had not done any computer related courses. In both districts, teachers have higher Technical skills where WGH has mean 17.79 and EGH has mean 15.46. In Information and Communication Skill, WGH has higher mean 14.93 than EGH mean 11.70. In Creative Skill also, WGH has mean 12.68 and EGH has a mean 9.59. In Problem solving Skill, WGH has better mean of 14.1 than that of EGH 10.21. The lowest score in both the districs is Critical Thinking Skill with means 8.93 in WGH and 6.32 in EGH. Among all the categories of teachers, Private and Adhoc teachers have better digital skills. In the overall comparison, the digital skill is at the intermediate level where West Garo Hills teachers have a better digital skill than that of East Garo Hills teachers.

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Sustainability of Public Debt in Nagaland

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Abstract

Countries incur debt by borrowing funds, which can be used to finance crucial development programs and projects. However, excessive borrowing can strain a country's finances, potentially leading to default. A debt instrument is a financial obligation that requires the debtor to pay interest, principal, or both to the creditor at a future date.

A country's public debt is considered sustainable if the government can meet all current and future payment obligations without needing exceptional financial assistance or defaulting. Debt sustainability means the state can service its debt both now and in the future. Debt sustainability indicators evaluate the borrower's creditworthiness and liquidity by assessing their ability to make timely interest payments and repay the debt using current and regular revenue sources. Ideally, debt should be less than 38.73 percent of the Gross State Domestic Product (GSDP), and interest payments should be less than 10 percent of revenue receipts.

For the State of Nagaland, the debt-to-GSDP ratio ranged from 42.87 to 45.75 percent. In 2018-19, the Debt-GSDP ratio was 43.74 percent, exceeding the 38.73 percent target set by the XIV Finance Commission for Nagaland. This paper aims to examine the sustainability of public debt in Nagaland.

Key Words: Debt profile, debt sustainability fiscal deficit, public debt.

1. Introduction

Countries often incur debt through borrowing, which can be a valuable tool for financing essential development programs and projects. However, excessive borrowing can place a heavy burden on a country's finances, potentially leading to default. A debt instrument represents a

financial obligation requiring the debtor to pay interest, principal, or both to the creditor at a future date.

State-level fiscal policy plays a crucial role in interacting with citizens and enhancing their welfare. Indian states bear significant responsibility in implementing government programs and influencing social and economic parameters to achieve approximately three-fourths of the Sustainable Development Goals (SDGs) by 2030. Despite the increasing demand for public services and the need for higher capital and developmental expenditure, states must operate within their budgetary constraints. This often results in higher borrowings and increased debt, highlighting the importance of focusing on state finances for medium-term macroeconomic stability and orderly financial market conditions.

For special category states like Nagaland, an interest-free loan with rationalized public expenditure, based on growth-enhancing sectoral allocation of resources, is a critical recommendation. Unlike other states, special category states face no stringent budget constraints due to significant central transfers. The enactment of the Fiscal Responsibility and Budget Management (FRBM) Act has allowed Nagaland to benefit from debt swapping and debt relief schemes, reducing the average annual interest rate. However, fiscal imprudence through contingent liabilities can lead to a growing Debt-GSDP ratio, ultimately resulting in debt unsustainability.

Fiscal expansion financed by debt issuance and the resultant accumulation of public debt significantly impacts the economy in both the short and long term. The impact of debt depends on the utilization of borrowed funds. If used for capital formation, it can increase future generations' real income and enhance the government's repayment capacity. Conversely, using borrowings to finance only current expenditures risks pushing debt to unsustainable levels.

2. Review of Literature

In the theoretical literature, the rationale for maintaining a low sustainable level of debt is attributed, among others, to the need to ensure the sustainability of fiscal policy, provide fiscal space for undertaking counter-cyclical policy or absorbing contingent liabilities without threatening debt sustainability, reduce vulnerability to crises and optimize growth by reducing the risk of crowding out of private investment, while also considering inter-generational equity and future spending needs⁴. In the Indian context, there are a number of studies that have looked at the issue of debt and fiscal sustainability at the state level.

Rajaraman et al. (2005) examined the issue of debt sustainability at the state level covering the time period 1992-2003. The study drew attention to a sharp rise in debt of major states during the quinquennium 1997-02 over the average for the quinquennium 1992-97. As the interest rate on state debt exceeded the nominal growth rate of GSDP during 1997- 2002, it highlighted the need for fiscal correction to stabilize debt as a percentage of GSDP. The study also identified states in need of expenditure compression and improvement in own revenue collection efforts and

suggested several institutional reforms, such as the establishment of a consolidated sinking fund, guarantee redemption fund, and introduction of a cap on guarantees and fiscal responsibility legislations (FRLs).

Nayak and Rath (2009) studied debt sustainability for Special Category States covering the period 1991-2009. Using Domar's sustainability condition (real growth rate should be higher than the real interest rate), they found that the sustainability condition was achieved in all the states except Arunachal Pradesh. However, the solvency condition was satisfied only in the case of Assam.

Misra and Khundrakpam (2009) pointed out that the primary revenue balance, on average, at the state level had not been adequate enough to meet interest payments. Using the Present Value of Budget Constraint (PVBC) approach, the liabilities of the state governments during the years 1991-92 to 2007-08 were found to be unsustainable.

Dholakia *et al.* (2004) assessed debt sustainability of states in relation to a uniform target of debt to GSDP ratio of 35 per cent and the ratio of debt to state's own revenue during the period 1988-89 to 2003-04; a potential declining trend in the latter was interpreted as an indicator of sustainability. Based on the first indicator, it was observed that there was a debt problem of credible magnitude only in about half of the 25 states covered in the study. However, their analysis, based on the second measure, pointed out that there could be a serious problem of intolerable debt in the long-run equilibrium in two states where the interest payments to revenue receipts ratio was above the tolerable limit of 20 per cent.

Makin and Arora (2012) examined fiscal sustainability at the state level covering the period 1990-91 to 2009-10. They estimated primary balances required to (i) stabilize public debt levels and (ii) achieve targeted debt-to-GSDP ratios for the individual states. The empirical exercise showed that the majority of the states have stabilized public debt levels as a proportion of GSDP, reducing the risk of public debt growing without bound above present levels given the current nominal effective interest rates and the strong growth performance at the state level. However, the slowdown in economic growth could expose many Indian states to considerable fiscal risk. States, therefore, need to focus on the primary budget balance to lower their public debt to income levels.

Dutta *et al.* (2010) in their study on fiscal and debt sustainability of Assam, covering the period 1991-2010, pointed out that a higher proportion of revenue deficit in fiscal deficit had created the problem of fiscal instability in some years during the period of study. However, the debt-GSDP ratio declined, reflecting a positive 'Domar gap' (*real GSDP growth exceeded the real interest rate*) and primary surplus enjoyed by the state in some years during the period under study. Using cointegration analysis, it was found that the state could maintain fiscal sustainability during the period under consideration.

Ianchovichina *et al.* (2006) studied fiscal sustainability in the state of Tamil Nadu in terms of the response of key components of the state's fiscal accounts to reforms and shocks. The results of the study, covering the period 1990-91 to 2003- 04, showed that Tamil Nadu had embarked on a fiscally sustainable path with its debt projected in the 'baseline scenario' to decline from 28 per cent of GSDP in 2003-04 to 16 per cent by 2026-27. However, with a positive shock of one standard deviation to the real interest rate above its historical average, and a negative shock of one standard deviation below the historical averages of GSDP and primary balances, the debt of the state was projected to grow to around 34.6 per cent in 2026-27, which was twice the 'baseline ratio'. The fiscal adjustment path was considered to be ambitious by historical standards and politically challenging, but it left fiscal space for increases in infrastructure investment which may be achieved without threatening fiscal sustainability. It was, therefore, suggested that the state should run primary surpluses between 2 and 3 per cent of GSDP to avoid further increases in the debt-GSDP ratio assuming no improvement in growth and no decline in real interest rate.

Dasgupta *et al.* (2012) examined the debt sustainability of six of the Indian state governments during the period 2003-12. Of the six states, three states financed their revenue expenditure largely through tax receipts while the other three did not. In the process, the states in the first group could use their borrowings to finance capital expenditure that would add to their future productive capacity. Nevertheless, there was a reduction in debt-GSDP ratios of all the states during 2003-12, reflecting their adherence to Fiscal Responsibility and Budget Management Acts. Overall, the empirical studies on debt sustainability at the state level in India indicate a mixed picture. While some of the studies point out that the debt position of states is unsustainable, others have drawn attention to the declining debt-GSDP ratios at the state level and attributed the improvement to the strong growth performance and implementation of Fiscal rules during the 2003-2012 period. However, it is also recognized that a slowdown in growth momentum could pose risk to the achievement of envisaged gross fiscal deficit and debt-GSDP targets under the medium-term scenario.

3. Public debt

A government experiences a fiscal deficit when its expenditures each year exceed its earnings from non-debt creating receipts (both revenue and capital). This shortfall is covered by borrowing, which contributes to the accumulation of public debt⁵.

Nagaland, similar to many other Indian states, has borrowed funds to finance development projects. Effective debt management requires careful monitoring and control of the state's debt levels to ensure they remain sustainable. Borrowing should be strategically directed towards productive purposes that generate returns, thereby avoiding an unsustainable debt burden.

As recommended by the Fourteenth Finance Commission (XIV FC), the Union Government on 06.04.2016 has approved the year-to-year flexibility for additional fiscal deficit to States for the period 2016-17 to 2019-20 to a maximum of 0.5 percent over and above the normal limit of 3 percent in any given year to the States subject to the States maintaining the debt-GSDP ratio within 25 percent and interest payments-revenue receipts ratio within 10 percent in the previous year. However, the flexibility in availing the additional fiscal deficit will be available to a State if there is no revenue deficit in the year in which borrowing limits are to be fixed and immediately preceding year.

The FC-XIII, FC-XIV, and the FRBM Review Committee (Chairman: Shri N. K. Singh) recommended debt targets for states. In 2018-19 RE, while many states were below the 3 percent of GFD-GDP threshold, the 25 percent debt to GDP threshold stands breached by many states. A slightly stringent criterion as prescribed by the FRBM Review Committee and in line with the revised FRBM implied debt target of 20 percent will put most of the states above the threshold.

The 15 Finance Commission (15 FC) mentioned that Nagaland had the second highest debt in the country. Though the State's Debt/GSDP had reduced from 55.5 percent in 2011–12 to 42.7 percent in 2018–19, 15th FC states that it was still much higher than the National Health Education Standards (NEHS) average of 29.61 percent.

Debt management is the process of establishing and executing a strategy for managing the Government's debt in order to raise the required amount of funding, achieve its risk and cost objectives, and meet any other sovereign debt management goals that the Government may have set through enactment or any other annual budget announcements.

The details relating to the outstanding debt of Nagaland during the years 2000-01 to 2019-20 are given in Table 1.1 below.

Table 1.1: Composition of Debt Stock

(₹ in

crore) 2000-01 2001-02 2002-03 2003-04 2004-05 2005-06 2009-10 2006-07 2007-08 2008-09 Source 578.22 733.97 901.47 1187.54 1326.49 1540.67 1782.66 2072.45 2437.95 2878.76 Market Loans 459.06 481.15 903.91 395.10 434.58 590.79 403.66 388.44 366.84 329.48 Central Government Financial 392.77 480.81 296.94 341.76 385.22 420.80 735.69 700.37 700.49 824.69 Institutions 477.64 499.38 419.13 **Small Savings** 405.46 437.48 456.02 515.30 436.91 564.49 590.58

(incl. PF)										
Other Obligations (Civil Deposits etc)	94.09	80.95	161.59	141.31	168.15	123.59	216. 12	287.47	501.93	515.96
Total	1929.6	2214.36	2719.93	2543.35	2813.82	3191.15	3341.14	3185.27	4571.70	5139.47
Debt-GSDP ratio	38.90	41.00	44.30	36.70	37.10	43.44	42.00	54.14	61.00	63.74

(Rs. in Crore)

	(RS. III CIOIC)									
Source	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
2.5 1 2	210100	2.122.12	2004 44	1010 11	1= 11 12	701000	1002.01	40.40 = 4	 204.00	
Market Loans	3106.90	3432.40	3901.41	4312.61	4764.65	5362.38	6083.81	6849.76	7204.80	7627.39
Central Government	306.60	289.11	267.14	244.63	228.33	206.78	185.50	164.11	146.37	131.16
									- 10101	
Financial	804.28	1013.99	956.12	794.05	771.47	719.39	700.08	790.70	764.35	696.22
	804.28	1015.99	930.12	794.03	//1.4/	/19.39	700.08	790.70	704.55	090.22
Institutions										
Small Savings	696.39	735.37	805.63	937.40	1006.50	1044.72	891.18	952.72	1569.34	2131.38
Sinan Savings	070.37	755.57	005.05	257.10	1000.50	1011172	071.10	752.72	1507.51	2131.30
(in al. DE)										
(incl. PF)										
Other Obligations	950.36	1289.00	1522.24	2068.23	1206.84	434.10	927.05	803.29	891.54	960.34
(Civil Deposits etc)										
(CIVII Deposits Cic)										
Total	E9(4 E2	(750.97	7452 54	9257 92	7077.70	9277 27	9797 (3	05/0.50	10577 40	11546 40
Total	5864.53	6759.87	7452.54	8356.92	7977.79	8276.37	8787.62	9560.58	10576.40	11546.48
Debt-GSDP ratio	38.36	41.05	38.53	34.84	43.22	45.75	44.00	42.87	43.74	39.92

Source: C&AG Report on State Finances and Statement under NFRBM Act 2005, GoN.

Market loans have been the primary source of debt for Nagaland, indicating that the state has been relying heavily on borrowing from the market to meet its financial needs. The overall trend shows a significant increase in debt, which implies a growing financial burden on the state government. Table 1.1 above reveals that the Debt-GSDP ratio is high and unstable.

4. Public

in order to raise the required amount of funding, achieve its risk and cost objectives, and meets any other sovereign debt management goals that the Government may have set through enactment or any other annual budget announcements.

Nagaland's public debt situation has been a cause for concern, with the state having one of the highest debt levels in the country. While the debt-GSDP ratio decreased from 63.74 percent in 2009-10 to 39.92 percent in 2019-20, it remains higher than the national average. Market loans have been a primary source of debt, indicating a heavy reliance on borrowing to meet financial requirements. Effective debt management strategies are essential to ensure sustainable fiscal health.

5. Debt profile: Components

Total debt of the State Government constitutes Internal debt of the State (market loans, ways and means advances from RBI, special securities issued to National Small Savings Fund and loans from financial institutions, etc.), and loans and advances from the Central Government. The details relating to total debt received, repayment of debt, ratio of debt to GSDP, and the actual quantum of debt available to the State during the five years 2015-16 to 2021-22 are given in Table 1.2.

Table 1.2: Component-wise Debt Trends

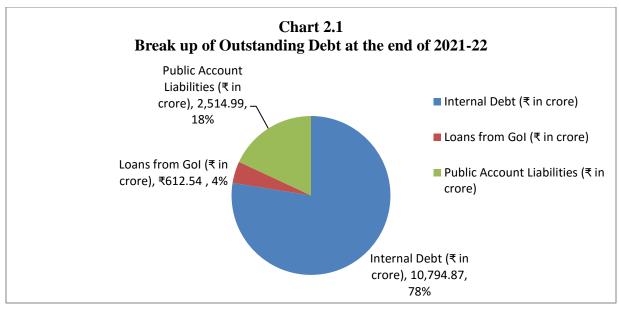
(₹ in crore)

		2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Outstanding Debt (A	Outstanding Debt (A+B)		9,557.35	10,409.15	10,545.76	12,179.10	13,471.67	13,922.40
(A) Public Debt	Internal Debt	6,529.46	6,930.06	7,640.46	7,969.15	8,986.93	10,331.14	10,794.87
	Loans from GoI	206.78	185.50	164.11	146.37	131.16	317.89	612.54
(B) Public Account Li	iabilities	2,195.41	2,441.79	2,441.79	2,604.58	3,061.01	2,822.64	2,514.99
(C) Off Budget borro	wings	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rate of growth of outs	Rate of growth of outstanding debt		7.01	8.91	1.31	15.49	10.61	3.35
(per cent)								
Gross State Domestic	Product (GSDP)	19,523.95	21,722.45	24,392.96	26,527.42	29,535.93	29,312.83	32,423.73
Debt/GSDP (per cent)		45.75	44.00	42.67	39.75	41.23	45.96	42.94
Total Debt Receipts		4,705.37	6,514.27	6,217.03	4,758.32	10,059.01	9,370.26	10,031.91
Total Debt Repaymen	ts including interest	4,313.90	6,524.07	6,042.98	4,289.24	8,681.42	9,462.83	10,513.26
Total Debt Available		391.47	-9.80	174.05	469.08	1,377.59	-92.57	-481.35
Debt Repayments/Debt Receipts		91.68	100.15	97.20	90.14	86.30	100.99	104.80
(In per cent)								

Source: C&AG Report on State Finances & Directorate of Economics and Statistics, GoN

The total outstanding debt of the State Government stood at ₹ 8,931.65 crore during 2015-16 and increased to ₹ 13,922.40 crore at the end of 2019-20. Component-wise break-up of debt is shown below in Chart 2.1.

In the four years from 2015-16 to 2018-19, the growth of outstanding public debt has a static growth. It is evident from Table 1.2 that the outstanding liabilities of the state government have increased from $\stackrel{?}{\underset{?}{?}}$ 2,195.41 crores in 2015-16 to $\stackrel{?}{\underset{?}{?}}$ 2,514.99 crores in 2021-22 which is 14.55 percent increase in 7 years.



Source: CAG Report on State Finances, 2021-22

6. Debt profile: Maturity and repayment

Debt maturity and repayment profile indicates commitment on the part of the Government for debt repayment or debt servicing. The outstanding debt of the State was ₹ 11,407.41 crore as on 31st March 2022. The maturity profile of the outstanding public debt stock along with interest payable thereupon during the next 10 years is as indicated in Table 1.3 and Chart 2.2.

Table 1.3: Debt Maturity profile of repayment of Public Debt

(₹ in crore)

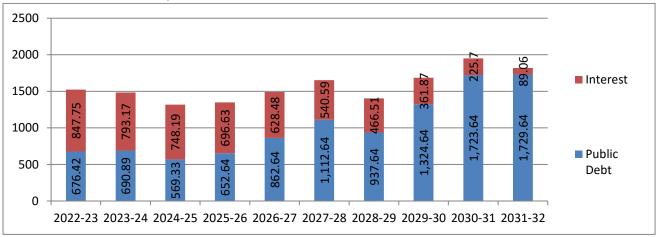
	Repayment of								
Year		Principal							
	Internal Debt	Loans from GoI	Total	Interest #	Total				
2022-23	655.00	21.42	676.42	847.75	1,524.17				
2023-24	670.00	20.89	690.89	793.17	1,484.06				
2024-25	565.00	4.33	569.33	748.19	1,317.52				
2025-26	650.00	2.64	652.64	696.63	1,349.27				
2026-27	860.00	2.64	862.64	628.48	1,491.12				
2027-28	1,110.00	2.64	1,112.64	540.59	1,653.23				
2028-29	935.00	2.64	937.64	466.51	1,404.15				

2029-30	1,322.00	2.64	1,324.64	361.87	1,686.51
2030-31	1,721.00	2.64	1,723.64	225.70	1,949.34
2031-32	1,727.00	2.64	1,729.64	89.06	1,818.70

Source: C&AG Report on State Finances 2021-22

#Interest has been calculated on the basis of five years' average of 'Average Interest Rate of Outstanding Debt' (2017-18: 8.23 percent; 2018-19: 8.40 percent; 2019-20: 8.02 percent; 2020-21: 7.40 percent; and 2021-22: 7.45 percent), i.e., 7.90 percent; on closing balances of Outstanding Debt.

Chart 2.2: Debt Maturity Profile



Source: CAG Report on State Finances 2021-22

The maturity profile of outstanding stock of public debt as on 31 March 2022 indicates that out of the outstanding public debt of ₹ 11,407.41 crore, 48.23 percent of outstanding public debt (₹ 5,502.20 crores) needs to be repaid within the next seven years while the remaining 51.77 percent (₹ 5,905.21 crores) of outstanding public debt is in the maturity bracket of more than seven years. Of the total outstanding public debt, internal debt consisting of market borrowings, loans from LIC, GIC, NABARD, etc. constituted 94.63 percent (₹ 10,794.87 crores).

Further, based on the outstanding public debt stock as on 31 March 2022, repayment of Public Debt and Interest would increase from ₹ 1,524.17 crore in 2022-23 to ₹ 1,818.70 crore in 2031-32 (19 percent). Since the calculations of repayment of Public Debt and interest thereupon have been done based on the Outstanding Public Debt as on 31 March 2022, the repayment of Public Debt and interest thereupon is bound to increase because of the trends of borrowings by the State Government.

Moreover, out of $\ge 11,407.41$ crore, $\ge 10,215.03$ crore was the principal amount of market loan taken by the State. The State is liable to pay an interest of $\ge 5,148.04$ crore at the end of repayment of these loans if the loans are repaid as per the maturity profile.

7. Debt sustainability analysis (DSA)

Debt is considered sustainable if the borrower, in this case, the State, is in a position to service its debt now, and in the future. Debt sustainability indicators accordingly seek to assess the creditworthiness and the liquidity position of the borrower by examining their ability to service the debt through timely interest payments and repay the debt out of current and regular sources of revenue.

Government of India enacted Fiscal Responsibility and Budget Management (FRBM) Act in 2003 on the presumption that fiscal imbalance is the key parameter adversely affecting all other macroeconomic variable. It aims at reducing debt to GDP ratio. Apart from FRBM Act time to time the Government of India has taken fiscal initiatives to inculcate fiscal discipline or to achieve debt sustainability. The State of Nagaland enacted the Nagaland Fiscal Responsibility and Budget Management (NFRBM) Act in 2005.

This section assesses the sustainability of debt of the State Government in terms of debt/ GSDP ratio, Fiscal Deficit, burden of interest payments (measured by the ratio of Interest Payments to Revenue Receipts), and maturity profile of the State Government debt. Table 1.4 shows the debt sustainability of the State according to these indicators for the six-year period beginning from 2016-17 and Chart 2.1 predicts the trends of debt sustainability indicators for the five years.

Table 1.4
Trends in Debt Sustainability Indicators

Debt Sustainability Indicators	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Outstanding Public Debt*	7,115.56	7,804.57	8,115.52	9,118.09	10,649.03	11,407.41
(₹ in crore)						
Rate of Growth of Outstanding	5.63	9.68	3.98	12.35	16.79	7.12
Public Debt						
GSDP (₹ in crore)	21,722.45	24,392.96	26,527.42	29,715.87	30,425.11	32,423.73
Rate of Growth of GSDP	11.26	12.29	8.75	12.02	2.39	6.57
Debt/GSDP	32.76	32.00	30.59	30.68	35.00	35.18
Debt Maturity profile of repayment	513.35	546.01	636.89	746.08	514.74	658.6
of State debt – including default history, if any (₹ in crore)						

Average interest Rate of Outstanding Public Debt (per cent)	8.33	8.23	8.40	8.02	7.40	7.45
Percentage of Interest payment to Revenue Receipt	6.73	6.15	6.75	7.12	7.50	6.93
Percentage of Debt Repayment to Debt Receipt	43.4	44.21	67.19	68.74	25.52	31.23
Net Debt available to the State# (₹ in crore)	669.35	689.01	310.95	339.24	1,502.37	1,450.28
Net Debt available as per cent to Debt Receipts	3.67	3.58	7.09	6.33	1.27	1.48
Debt Stabilisation (Quantum spread + Primary Deficit)	770.21	804.16	-165.05	-22.59	-1,022.10	638.16

Sources: State Finances, Audit Report of the Comptroller and Auditor General of India.

#Net debt available to the State Government is calculated as excess of Public debt receipts over Public debt repayment and interest payment on Public Debt.

80 70 60 50 40 30 20 10 0 Rate of Growth of Rate of Growth of Debt as per cent of Percentage of Percentage of Public **Outstanding Public GSDP GSDP** Interest payment to Debt Repayment to Debt Revenue Receipt Public Debt Receipt ■ 2016-17 **2017-18 2018-19 2019-20** 2020-21 2021-22

Chart 2.3: Trends of Debt Sustainability indicators

Source: CAG Report on State Finances 2020-21 & 2021-22

8. Conclusion

In summary, the state of Nagaland has experienced a high debt-to-GSDP ratio over the years. However, there was a notable decline in this ratio to 39.75 percent in 2018-19. The state has successfully maintained a stable debt-to-GSDP ratio in recent years, primarily due to the higher

^{*}Outstanding Public Debt is the sum of outstanding balances under the heads 6003-Internal Debt and 6004- Loans and Advances from the Central Government.

growth rate of GSDP compared to the effective interest rate on public debt. Except for 2018-19, the GSDP growth rate consistently outpaced the effective interest rate on public debt.

Despite this, it is crucial for the state government to implement corrective measures to ensure the debt remains sustainable. Failure to do so could necessitate increased borrowing to meet debt obligations, including principal and interest payments. This could result in a shortage of funds for other critical activities, such as capital expenditure and development projects, ultimately leading to an increase in the state's public debt.

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Unlocking Entrepreneurial Opportunities in Nagaland: A Literature Review

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Abstract

Nagaland, a small state in North East India, is rich in natural resources like minerals, hydropower, and petroleum, yet it has the highest unemployment rate, as shown in the Periodic Labour Force Survey (PLFS) 2017-18. The lack of industrial growth has limited job opportunities, which has led many people in the state to turn to entrepreneurship as a new way to create jobs and boost the economy. The state offers great potential for business in areas like horticulture, agro-based industries, mining, food processing, tourism, and handicrafts, supported by favorable government policies. However, Nagaland's entrepreneurship ecosystem is still developing and faces several challenges. This literature review looks at how entrepreneurship can help reduce unemployment in Nagaland by exploring the state's opportunities, policies, and emerging business trends, while also identifying the existing challenges that need to be addressed to support long-term economic growth. This review is based on existing journals and research studies on entrepreneurship in Nagaland.

Keywords: Entrepreneurship, Unemployment, Challenges, Opportunities, Nagaland, Economic Development.

I. Introduction

Entrepreneurship has been considered one of the major universal drivers of economic development, and sustainable development also contributing to the growth of a country (Diallo et al., 2023). Entrepreneurship is not just "starting a company". Entrepreneurship is a mechanism that recognises opportunities, allocates capital, and generates values (Dickson et al.,2020). An entrepreneur leads and implements the correct conceptions, which is highly serviceable for

society and results in the monetary improvement of a nation (Sahoo, 2022). Entrepreneurship plays an important role in solving the major issues of a country such as unemployment, low level of national income and per capita income. Young people possess entrepreneurial mindset (Lehal, 2022). The beginning of 2000s saw scarce in entrepreneurial aspiration among people in Nagaland. However, the rise in educated employment and paucity in job in government sector has pushed young people to embark on entrepreneurship career. The challenges still persist owing to insufficient infrastructure in the state. As a result of these challenges, this study endeavors to uncover the prospects and challenges of entrepreneurship. The findings of this study would benefit upcoming entrepreneurs, motivate youngsters to venture into entrepreneurship and address unemployment issues.

II. Review of literature

In the late 90s, Entrepreneurship was still at the nascent stage in Nagaland. For first generation of entrepreneurs to set up an enterprise and run it successfully, proper infrastructure facilities and financial assistance is necessary. Entrepreneurs cannot function in solitary confinement; they need the right atmosphere to succeed (Dickson et al., 2020). During this stage, government incentives like – central subsidy for the development of infrastructure and financial assistance have been initiated to encourage and support some people to take up entrepreneurship as a career but due to lack of proper implementation of policies and continuous bureaucratic intervention, most of the entrepreneurial initiatives were unsuccessful. Panda (1999) conducted research on the development of entrepreneurs in Nagaland, focused only on hotel enterprises. It was found that hotel entrepreneurship has emerged as a diversified occupation only after accumulating funds from the previous occupation. Earlier, people believed in the concept that 'entrepreneurs are born' and only those who are born with a rich fortune can become entrepreneurs. They venture into entrepreneurship with a desire for higher income or additional income along with the income from existing jobs. Any comprehensive study on any field of Entrepreneurship (rural entrepreneurship, agri-preneurship, women entrepreneurship, etc.) served not only as a pioneering work to lead the future growth of the state but also as a base literature in the field.

Currently there are numerous entrepreneurial opportunities in Nagaland. The people of Nagaland could utilize the available resources efficiently and effectively. Though many youngsters depend on government jobs and are reluctant to work in the private sector. Educated people consider working in the private sector as unemployment; the mindset of the people and their inability to look beyond the conventional employment sectors gives a meteoric rise in unemployment. Looking at the prospects of entrepreneurship being unemployed is a choice in Nagaland. People should change their notion of secure and comfortable jobs in a government office; the educated youth should not depend on the government to provide them with jobs. Self-employment was the best solution to this unemployment problem; the youths should not remain idle after completing their studies. They should engage themselves in various sectors of self-employment like Agricultural farming, poultry farming, fish cultivation, livestock rearing, handicrafts, etc. When

someone starts their own business, it creates employment opportunities for others. Solo (2017) has proposed that the following areas- Sericulture, Horticulture, Floriculture, Small Scale and Cottage Industries, Essential oils and Aromatic Chemicals, and Handlooms & Handicrafts are considered as possible developments in the entrepreneurial scene have good prospects for entrepreneurs in the north-east region. Therefore, there is a need to promote entrepreneurship development in Nagaland which will encourage the younger generation to take up entrepreneurial activities and help to tackle unemployment issues. Keeping the above issues in mind, some researchers started their research on different domains of entrepreneurship which includes a study on women entrepreneurship (Longchar, 2016); bamboo-based entrepreneurs (Mpanme, 2016); entrepreneurship development (Nagi, 2018); role and performance of entrepreneurs (Imtiwala, 2018); entrepreneurship, a gender perspective (Aier, 2019); women entrepreneurship through microfinance (Kumar, 2019). According to Sinha (2017) entrepreneurship has grown over the course of time particularly at the local level in terms of fashion along with others such as dining and eateries. The key reason for the development of these sectors is the shift in the perspective of youth towards entrepreneurship and government jobs. Not only men but women entrepreneurs are influenced by various motivational factors some of them are to become self-employed, to utilise one's talent and capabilities and to have personal freedom and independence (Ozukum, 2022). According to Tep (2022), "Youth entrepreneurship in Nagaland has a high potential of succeeding as the market is still untapped in many parts of the region or districts". Self-employment is the best solution to this unemployment problem; the youths should not remain idle after completing their studies. The field of entrepreneurship is viewed as economic opportunity as well as a path ahead for social harmony and peace. As for Generation Z, entrepreneurship is not a new concept in Nagaland. Kumar & Shobana (2022) investigated on the various entrepreneurial schemes and major skill training and vocational education in Nagaland. Today, many entrepreneurs are actively running their enterprises despite the issues and challenges faced by them. To help aspiring and budding entrepreneurs in understanding their problems and opportunities some researchers have conducted a study on the opportunities and challenges of entrepreneurs. Nagi (2018) asserted lack of skilled labour to be a major limitation in Nagaland. Some primary concerns namely insufficient outlets, limited capital and inadequate institutional support of finance. In addition, challenges such as limited market knowledge, absence of viable plan, technical and managerial skills, advertisement and awareness, and lack of technical knowhow of Naga entrepreneurs. Similarly, Lipoktoshi (2022) pointed out the land terrain issue of Nagaland along with other challenges namely infrastructure, transportation, storage, finance, marketing, manufacturing and personal. However, the ranking in Ease of Doing Business Index of Nagaland as 29th rank in 'Aspires' category in 2019 indicate the willingness to draw in investment in the state. The state government through the Department of Industry and Commerce has been trying to boost the entrepreneurs by way of rendering training programmes (Kikon, 2021). But there is still a need to widen the scope of entrepreneurship developments programmes (EDPs) in the state by including other aspect apart from technical trainings such as risk and human resource

management programmes in order to facilitate the entrepreneurs in fully realising the dynamics of entrepreneurship.

III. Objective

The objective of this paper is to highlight how entrepreneurship can reduce unemployment by reviewing existing literatures on entrepreneurial opportunities, policies and challenges in Nagaland.

IV. Methodology

This study is based totally on the review of literature of research papers, theses, articles and journals particularly on entrepreneurship in Nagaland and North eastern parts of India.

Table 1 *List of journals on entrepreneurship in Nagaland*

Sl. No.	Name of the author and Year of publication	Title of the paper/ Journal and Theses	Objectives of the paper/journal/ theses
1.	Panda, N. M. (1999)	Development of entrepreneurship in Nagaland with special reference to hotel enterprises, Doctoral Thesis, Manipur University, Imphal, Manipur	The objectives of this research were to analyse the growth of entrepreneurship in Nagaland's hotel industry, evaluate framework supporting entrepreneurship, examine the economic, social, educational, and occupational background of the hotel entrepreneurs, identify the challenges faced by entrepreneurs and suggest the measures to enhance the flow of entrepreneurs and improve management practices in hotel enterprise in Nagaland.
2.	Longchar, M. (2016)	Women entrepreneurship: The case of the Aos in Dimapur, Nagaland Doctoral dissertation, Guwahati University, Assam	The objectives of this study were to identify the factors that motivated the Ao women to engage in entrepreneurship, explore their socio-economic background, understand the nature and management of their enterprises, classify the different business ventures they have undertaken, and examine the challenges they face both at home and in their work.

3.	Mpanme, D.(2016)	Entrepreneurship in Nagaland a study of bamboo-based entrepreneurs in Dimapur district, Doctoral Thesis, Department of Management, North- Eastern Hill University, Meghalaya	This study examined the stages involved in bamboo-based enterprises, explore the entrepreneurial traits developed among trained and untrained entrepreneurs, analysed intervention by development institutions to promote entrepreneurship, and identified the challenges faced by both development agencies and bamboo-based entrepreneurs in Dimapur district, Nagaland.
4.	Sinha, S. (2017)	Trends & Challenges of Entrepreneurship in Northeast India- A study of Nagaland. ITIHAS the journal of Indian Management	This study aimed to understand the nature of entrepreneurship in Nagaland and identify the key issues and challenges faced by entrepreneur in the region.
5.	Solo, N.M. & Nagi. K. (2017)	Prospects for entrepreneurs in North- East India: A case study, International Journal of Research in Business Studies	This study examined the role of private agencies in providing assistance to potential entrepreneurs in North East India, evaluated the role of EA in promoting international trade in South East Asia, and identified the prospects for entrepreneurs in North East India with the effective implementation of India's Act East Policy.
6.	Nagi, K. (2018)	A study of entrepreneurship development in Nagaland with special reference to Kohima and Dimapur district, Doctoral dissertation, Nagaland University	This study examined the current state of entrepreneurship in Nagaland, evaluate the role of government and nongovernmental agencies, analysed the challenges faced by entrepreneurs in Kohima and Dimapur and assessed the effectiveness of Entrepreneurship Development Programmes (EDPs).
7.	Imtiwala (2018)	Role and performance of entrepreneurs and small business in Nagaland: A	This study assessed the socio-economic status of women entrepreneurs in Nagaland, explored the factors

		agga study of	motivating them to purey
		case study of	motivating them to pursue
		Mokokchung district,	entrepreneurship, and evaluate their
		Tetso Interdisciplinary Journal	empowerment levels before and after
		Journal	establishing business. It also examined
			the role of government, financial
			institutions, and NGOs in supporting
			their growth, analyzed performance
			through selected case studies, and
			identified the challenges they faced.
8.	Aier, B.	Entrepreneurship in	This study explored the socio-
	(2019)	Nagaland: A gender	demographic differences between male
		perspective, Doctoral	and female entrepreneurs, compares
		Thesis, Mizoram	their enterprise performance, identified
		University, Mizoram	motivating factors influencing their
			entrepreneurial journey, and examined
			gender specific challenges in finance,
			marketing, labor and personal aspects.
9.	Kumar, S.	Women entrepreneurship	This study examined the socio-
	(2019)	through Micro-Finance	economic status of women
		in Nagaland: with special	entrepreneurs, evaluates the role of
		reference to Dimapur	Micro Financial Institutions (MFIs) in
		district in Nagaland state,	poverty alleviation, analyzes the
		Doctoral Thesis, ICFAC	contributions of government and NGOs
		University, Dimapur,	in promoting women entrepreneurship
		Nagaland	and proposes a framework for their
			further development in the study area.
10.	Kikon,R.K.	Promotion of	Studied the various training
10.	(2021).	entrepreneurs through	programmes of the state government.
	(2021).	Entrepreneurship	programmes of the state government.
		Development	
		Programmes (EDPs) and	
		its challenges in	
		Nagaland. International	
		journal of creative	
		research thoughts	
		(IJCRT)	
11.	Tep, S.	Challenges and	This study explored the status of
	(2022)	opportunities of	entrepreneurs in Nagaland, with a focus
		entrepreneurs: A study	on youth entrepreneurs, their socio-

		with special reference to Naga youth in Dimapur and Kohima districts of Nagaland, Doctoral thesis, St. Joseph University, Dimapur, Nagaland	economic conditions, challenges, and opportunities. It aimed to propose policies to enhance youth entrepreneurship in the region.
12.	Kumar, S. & Shobana, D. (2022)	Role of entrepreneurial schemes in the development of entrepreneurship in Nagaland, EPRA International Journal of Agriculture and Rural Economic Research	This study investigated entrepreneurial schemes and examined major skill training and vocational education initiatives in Nagaland.
13.	Lipoktoshi, (2022)	Rural entrepreneurship in Nagaland: Problems and prospects, Doctoral Thesis, Nagaland University, Nagaland	This study reviewed the state of rural entrepreneurship in Nagaland, assessed the socio-economic conditions of rural entrepreneurs, evaluated the role of government and NGOs in promoting their growth, and identifies the challenges they face.
14.	Ozukum, Y. (2022)	Women Entrepreneurs of Nagaland. A Sociological Study, Doctoral Thesis, North-Eastern Hill University, Meghalaya	This exploratory and analytical study examined the socio –economic status, motivational factors and challenges of women entrepreneurs in Mokokchung town and Dimapur city, by using the theoretical framework of Brush et al to analyze empirical data.

Source: Literature Review

The above studies collectively highlights varied dimensions of entrepreneurial studies in Nagaland such as hospitality, bamboo-based enterprise, rural, youth and women entrepreneurs.

V. Discussions and findings based on the review of literature

1. The state of Nagaland is rich in Agriculture, forest resources, mineral resources and the tourism industry; therefore there is a need to make efficient and effective use of these available

resources which is possible through entrepreneurship which in term will create job opportunity and reduce unemployment.

- 2. Nagaland has witnessed a surging growth in entrepreneurship over the years especially in locally made brands of food products, fashion, restaurants and hotels etc. Many entrepreneurs have come up with their own food processing unit, pickle-making, own clothing brand, restaurants and cafes. Kuman and Shobana (2022) viewed entrepreneurs as key job creators in the state given the limited corporate houses.
- 3. There are numerous opportunities for entrepreneurship in Nagaland which includes the following areas- Agricultural farming, Poultry farming Sericulture, Horticulture, Floriculture, Small Scale and Cottage Industries, Essential oils and Aromatic Chemicals, Handlooms & Handicrafts and many more.
- 4. With a change in the mindset of the people and to tackle unemployment issues, many youngsters are now venturing into entrepreneurship and the number of entrepreneurs and enterprises is increasing day by day. Solo (2017), stated that to give opportunities to the rising of enterprises, some Non-Governmental Organisations (NGOs) are providing institutional and financial support to aspiring entrepreneurs. In Nagaland, there are three NGOs namely YouthNet, Entrepreneurs Associates and Business Association of Nagas which help both aspiring and existing entrepreneurs by imparting training and extending credit.
- 5. Though there are numerous opportunities, entrepreneurs also face various problems and challenges in running their enterprise infrastructural problems, transportation problems, storage problems, financial problems, marketing problems, manufacturing problems and personnel problems. Some common challenges faced by Naga entrepreneurs and other stakeholders in setting-up and sustaining the enterprises are lack of market familiarity, lack of viable concept, lack of technical and managerial skills, lack of proper advertisement and awareness, and lack of business technical know-how. From the review of literature it was found that in Nagaland, though absolute labour is available, dearth of skilled labour is a great limitation.
- 6. Nagaland Industrial Development Corporation (NIDC), National Small Industries Corporation (NSIC), Small Industrial Development Bank of India (SIDBI), National Schedule Tribes Finance and Development Corporation (NSTFDC), National Minorities Development and Finance Corporation (NMDFC), North East Industrial Development Finance Corporation (NEDFI) and District Industry Centre (DIC) are some of the organisations/ institutions that provide entrepreneurial support in Nagaland.

VI. Conclusion

In reviewing the literature, it was found that the state is still at an early stage of building an entrepreneurship ecosystem. Therefore, the central government, state government, educational institutions and some non-profit organisations in the state are taking the initiative to promote and create awareness of entrepreneurship through various Entrepreneurship Development Programme (EDP) and Skill development courses and in the meantime local people should change their mindset that only government job can create a stable job or solve unemployment problems.

Based on a review of past studies on entrepreneurship, it was found that only a few researchers and scholars have conducted studies on entrepreneurship in Nagaland. As entrepreneurship is considered to be the driving force of the state and it is the best way to tackle state's issues like unemployment there is a need for more research. Looking at the current situation of the state, more research on agri-preneurship, tourism entrepreneurship rural entrepreneurship and women entrepreneurship is highly recommended. As the business environment keeps on changing, continuous research on the prospects, challenges and problems of entrepreneurs is necessary.

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Managing Media for Development: Evaluating AIR's Impact on Awareness and Attitudes

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Abstract

This study examines the effectiveness of All India Radio (AIR) in promoting developmental awareness and influencing the attitudes and decisions of its listeners. Using an ex-post facto research design, the research assesses the impact of AIR's programmes on developmental issues like health, education, and economic growth across diverse demographic segments. The research employs surveys with ANOVA analyses to measure changes in listener engagement and decision-making behaviours before and after exposure to radio content. A sample size of 200 individuals from Kohima and Mon districts in Nagaland were selected via convenience sampling to provide a culturally and socio-economically diverse context.

The findings indicate significant variations in how radio programme is perceived between the two districts. Kohima shows greater variance in perceptions of radio's effectiveness in content dissemination and personal development, suggesting the need for targeted programming. In contrast, Mon displays less variability but highlights significant differences in decision-making processes. These results suggest that tailored radio programming strategies could significantly enhance the utility of radio as a developmental communication tool. By addressing specific district and demographic needs, AIR can optimize listener engagement and satisfaction, thereby enhancing the overall impact of its developmental broadcasts.

Keywords: AIR, decision-making, demographic variations, developmental awareness, listener engagement, radio effectiveness, tailored programming.

1. Introduction

Mass media are useful for spreading information, creative use can transform them into tools for inspiring and even organizing people. This could transform development into a programme for the people, with the government serving as a facilitator (Menon, 1997). Getting the print or broadcast media to consistently and frequently cover issues, events, and concerns seemed to be

particularly successful for some organizations or groups. The majority of development organizations and groups, on the other hand, frequently receive ignored or passing coverage that rarely does them justice for the significant work they carry out and the important information they could provide to the public (Ahuja & Chhabra, 2013). By utilizing the opportunities at hand and working, investing, and innovating to improve living standard, individuals, families and communities can reduce poverty. The degree of change (if any) depends on how differently each audience member feels about themselves as individuals and as members of various social and cultural groups in response to various stimuli from the mass media (Kumar, 2020).

Change can never be replaced by communication. It must be ensured that information makes a meaningful contribution to the reduction or solution of specific problems. If facilities are available but are not utilized, communication problems may exist. To determine how motivated information activities are and what outcomes can be anticipated, problems must be carefully examined. Structure and communication issues frequently coexist in problems (Kumar, 2013). It will take some significant changes on the part of the populace, some from the government, and an effective establishment to link up what occurs at the centre with what actually occurs locally, as well as what tends to happen in the media with local communication in order to implement a local plan effectively (Schramm, 1979). Although information failures may never be completely eliminated, understanding them and taking steps to rectify them is essential for efficient markets, which in turn is essential for quick, equitable, and long-lasting prosperity.

The flow of information through media has the power to influence public opinion, keep track of public behaviour and mobilize support for institutional change. Print, electronic and new media through the Internet have encouraged competition in economic and political markets and assisted in creating incentives for public and private agents to become more accountable in both developing and developed nations. Media influence development activities significantly, whether it be through passive or active means, as information dissemination or public engagement to express opinions.

For a variety of reasons, radio has played significant role in research and practise of communication for national development and social change. Radio is an appealing medium for authorities wanting to work with impoverished populaces who have little or no access to schools or other literacy-training resources. Radio also enjoys widespread diffusion among rural residents with limited resources for content related to their basic needs because it is an inexpensive medium for its audience. With radio's development and widespread use have come the emergence of a vast array of methodologies and approaches.

In the 1960s, the Indian government explored the potential of radio to bring about comprehensive changes in the social and economic development of India and its population. Radio not only played a significant role in the field of agriculture but also effectively propagated various development programs among the Indian population. The Government of India extensively used radio to communicate its policies and programs to rural masses for the sake of their social and economic development. This was particularly vital in hilly areas where the reach of other media, like television, was not only challenging but also prohibitively expensive for the

rural poor. The Government of India extensively employed radio to connect with the masses and promote its programs and policies, especially in the North Eastern states. Radio proved to be a versatile medium, particularly in the hilly areas of the North East, due to its broad reach and ease of access.

AIR under Prasar Bharti one of the earliest broadcasting media set up and operational in Nagaland. AIR Kohima was set up in 1962 as the 36th station in the country. Throughout the state, there are three transmitters- MW Tr. – 100 KHz, SW Tr. – 50 KW and FM Tr. – 1 KW, while area covered at 45 Sq. Km (Radial District). AIR airs in 14 local dialect and provide news in 16 bulletins out of which 14 air in local dialects and 2 regional bulletins in Nagamese and English. Programs such as- "Lunch Hour Western Music programme" and for the evening session "calling all Nagaland". To provide to the information needs of farmers, Naga population being predominantly jhum cultivators, a programme called "Mila-Mili" which was renamed as "Bosti Manu Hor Karone: Programme for rural listeners" in the farm and home unit was inserted. The station also broadcasts FM Tragopan (AIR FM Tragopan 103 MHz). It debuted on October 2, 2017, and is accessible in Kohima on frequency 103 MHz. Additionally, DD Free Dish offers it. FM programming is broadcast by AIR FM Tragopan from 6:30 am to 9:30 pm. English, Nagamese and Hindi are the three primary languages used in programming.

2. Review of literature

Rafiq and Chashoo (2018), evaluated different ways that the media has an impact on culture and society. Through a theatrical lens, the study sought to explain how the media interact with one another and shape culture. The study identifies that researchers are promoting greater interactivity, transparency, and sensitivity in place of earlier models of social change. Even though the influence of the mass media is indirect and challenging to observe, quantify, and comprehend, it is still a vital tool to be used in ongoing efforts to raise people's standards of living.

Vagdevi et al. (2016), examined the significance and roles played by Kissan Call Centers in India using the conceptual framework developed by Wilbur Schramm for his research on communication for development. The research is supported by secondary data. The study suggests more creative methods for disseminating relevant information in rural dialect must now be employed if information is to be effectively spread. Additionally, more funding should be allocated for Research and Development in agricultural communication.

Hemer and Tufte (2005), pointed out that in order to improve everyday life, communication can be used as a tool and a means of articulating processes of development and social change. The book explores the potential and limits of communication giving people the power to affect both their own and those of their neighbors. The authors observe that the field of communication for development is currently at a crossroads, and the methods used in the previous few decades need to be thoroughly rethought.

Agashe et al. (2022), analyzed "Kisanwani" programme a message based on the weather forecast prepared by a team of scientists from Krishi Vigyan Kendra Balaghat and sent to AIR station. The study was carried out in Madhya Pradesh's Balaghat district. To improve implementation, the Agro-met Advisory Bulletin is recommended to be broadcasted twice a week and repeated 2 to 3 times daily, as it significantly aids farmers in planning their operations. Continuing its broadcasting is advised due to its crucial role in agricultural planning.

Odishika and Chukuka (2021), examined the effectiveness of radio in Nigeria in tackling national security and sustainable development issues, focusing on the "Watch 360" program by the Federal Radio Corporation of Nigeria (FRCN). The study recommended that FRCN should ensure all its stations nationwide broadcast the program and introduce live streaming and vernacular editions in Hausa, Ibo, and Yoruba for broader reach and greater impact. These measures aim to maximize the program's benefits in promoting security and development.

Sharma et al. (2021), observed that the mainstream media has largely ignored the significance of indigenous peoples and their cultural heritage. This oversight has led to a demand for community-based media, as mainstream outlets struggle to reach and engage local communities.

Butala (2020), investigated the impact of All India Radio's expanded national coverage on financial inclusion in the early 2000s. Owning a bank account is the dependent variable, and sub district radio coverage is the explanatory variable of interest. The result of the study differed between rural and urban areas, with rural areas feeling the effects of radio coverage more so than urban areas. The results are supported by a number of robustness checks. The policy ramifications are twofold- expanding radio broadcast access and language and geographic coverage across India are anticipated to boost financial inclusion.

Shukla and Munshi (2019), examined the impact of radio campaigns on Ahmedabad residents. The results of the study demonstrated that despite some flaws in radio commercials, radio has a significant impact on people's lives. The FM stations and AIR have developed compelling campaigns to address the problems, and those have helped Ahmedabad residents change their way of life. The study observed that the campaign from AIR is less well-liked in urban area because private FMs must compete with public FMs and is not frequently listened to on mobile phones.

Palvi et al. (2018), seeked to understand the demographics of the farmers who listen to AIR's Kisanvani programme in Madhya Pradesh's Shahdol district. The coefficient of correlation showed significant relationship between listening behavior and the following variables: education, land ownership, annual income, farm power, extension participation, social participation, economic motivation, attitude towards adoption of improved production technology, information seeking behavior, and opinion towards adoption of improved production technology. Age, family type, and family size had no relation to listening behavior that was significant.

Sharma et al. (2018) noted that programming on AIR and Doordarshan Kendra, Imphal, spans a wide geographic range, benefiting the general public. The study found these platforms play a crucial role in educating people, especially women, illiterates, and dropouts, by disseminating knowledge and raising awareness. Their diverse programs cater to a broad audience, significantly enriching knowledge among both literate and illiterate adults. The broadcasts provide valuable information, directly or indirectly benefiting the masses regardless of gender or literacy level.

3. Research gap

There is lack of prior research on impact of media in Nagaland, which illustrate the need for additional research in the field. Radio as a medium in research studies are mostly confined to community radio. There is only few research on AIR. Most researches undertaken confine to limited aspect of development.

4. Research objectives:

- To examine the effectiveness of radio programming in increasing developmental awareness and disseminating information related to development among audiences of AIR.
- ii. To assess the impact of radio content on shaping the attitudes, values, and decision-making behaviours of AIR listeners with respect to development issues.

5. Understanding objectives

Research Objective 1:

The primary aim of this research objective is to evaluate how effectively AIR uses its programming to foster awareness about various development issues such as health, education, and economic growth.

Research Objective 2:

This objective focuses on understanding the influence of AIR's programming on the personal and communal values of its listeners, particularly regarding development-related issues. Additionally, the objective considers the practical outcomes of any shifts in attitude, specifically looking at decision-making behaviours.

6. Research method

Ex-post facto research is a methodological approach is applied where the researcher cannot manipulate variables directly due to ethical or practical limitations. Instead of controlling the independent variable to determine its effects on the dependent variable, the researcher observes how differences in the independent variable are associated with changes in the dependent

variable. This retrospective approach is often applied to study the potential impact of naturally occurring variables. The survey method, a popular data collection technique employed in both ex-post facto research and other study types, involves gathering information from a sample of individuals through their responses to questions based on the research objectives.

A small sample survey is a research method where data is collected from a limited number of participants, chosen from a specific population. This approach is often used when resources are constrained, when the target population is very small, or when a preliminary exploration is desired before launching a more extensive study. Small sample surveys can provide quick insights and are particularly useful in qualitative research where the depth of information obtained is more critical than the breadth.

6.1 Tool for data collection

To achieve the goals of the study, a set of seven questions was formulated and asked to inhabitants of Jakhama village in Kohima district and Tobu village in Mon district, both located in Nagaland. These questions were carefully crafted to probe into different facets of media use, including the advantages people gain from using media, the impact of various media platforms on social and cultural progress, and the role of radio in personal life, specifically its influence on decision-making and community engagement.

Additionally, the survey sought to measure how effectively radio programs communicate development-related information, and to evaluate the support that these broadcasts offer in fostering personal values, attitudes, and development. The questionnaire also invited participants to consider the practical usefulness of the knowledge gained from radio broadcasts, and to express their satisfaction with the content provided by AIR. Finally, the survey asked for participants' feedback on their satisfaction with development-focused programming from AIR.

6.2 Sample and sample size

In an exploratory study investigating the role of radio in development communication within Nagaland, researcher employed a convenience sampling strategy to select 100 individuals each from Jakhama village in Kohima District and Tobu village in Mon District. Jakhama, with a population of 4,695, and Tobu, with 5,076 residents, were chosen to represent distinct cultural and socio-economic backgrounds within the state, providing a diverse context for the study.

The focus of this research was to assess how effectively radio serves as a tool for development communication, influencing areas such as education, health awareness, and agricultural practices. The choice of convenience sampling allowed the researchers to quickly gather data from individuals who were readily accessible and willing to provide insights into their daily radio listening habits and its perceived impact on their lives.

Those more likely to be at home or in central village locations, for instance, might have been overrepresented in the sample. Despite these limitations, the study provided valuable qualitative insights into how different demographic groups in Jakhama and Tobu perceive and utilize radio broadcasts for informational and educational purposes, setting a foundational understanding for potentially more detailed, representative research in the future.

6.3 Analysis design

The use of Analysis of Variance (ANOVA) a parametric statistical method is integral to evaluating the effectiveness of radio in promoting developmental awareness and influencing attitudes and decisions among AIR audiences. This method provides a structured and quantifiable way to assess the impact of media campaigns and programming. ANOVA is employed to compare means across three or more independent groups to ascertain if differences are statistically significant. This is particularly relevant in examining how different radio content or programming formats affect various listener groups in terms of developmental awareness and changes in attitudes.

7. Data analyses and findings

The tables (1 & 2) highlight the result of analyses.

Table 1: ANOVA on Impact of Radio on Personal Development and Decision Making with Age Variable

Distt			Sum of	df	Mean	F	Sig.
			Squares		Square		
Kohima	Q9 Do you think	Between	15.907	3	5.302	12.139	.000
	radio programmes	Groups					
	are effective in	Within	41.933	96	.437		
	dissemination of	Groups					
	development	Total	57.840	99			
	related content?						
	Q10 To what	Between	5.668	3	1.889	2.975	.035
	extent do you	Groups					
	think radio is	Within	60.972	96	.635		
	impacting your	Groups					
	decision making?	Total	66.640	99			
	Q11 How helpful	Between	55.950	3	18.650	15.837	.000
	was radio on your	Groups					
	values, attitude	Within	113.050	96	1.178		
	and personal	Groups					
	development?	Total	169.000	99			
Mon	Q9 Do you think	Between	1.687	3	.562	2.261	.086

radio progra	mmes Groups					
are effective	in Within	23.873	96	.249		
dissemination	on of Groups					
developmen	t Total	25.560	99			
related conte	ent?					
Q10 To wha	t Between	3.239	3	1.080	3.976	.010
extent do yo	u Groups					
think radio i	s Within	26.071	96	.272		
impacting yo	our Groups					
decision mal	king? Total	29.310	99			
Q11 How he	elpful Between	.221	3	.074	.178	.911
was radio or	your Groups					
values, attitu	ıde Within	39.779	96	.414		
and personal	Groups					
developmen	t? Total	40.000	99			

Source: Researcher's calculation

The ANOVA explores the impact of radio programmes across different respondent age groups, focusing on their effectiveness in areas like development-related content dissemination, decision making, and personal development, segmented by district (Kohima and Mon) and specific survey questions.

Each district shows varying responses to the effectiveness of radio as assessed through the questions posed. In terms of table metrics, "Sum of Squares" measures the total variance in the responses, divided into "Between Groups" (differences across groups) and "Within Groups" (differences within each group). "Degrees of Freedom" (df) refers to the number of values in the final calculation that are free to vary, with calculations for between and within groups separately. The "Mean Square" is derived by dividing the Sum of Squares by the corresponding df, crucial for calculating the "F-statistic," which compares the variance between groups against the variance within groups. A higher F-statistic suggests significant differences between group means. The "Significance" value or p-value indicates the probability that the observed differences are due to chance, with values below 0.05 generally pointing to significant differences.

In Kohima, substantial variations are observed: Q9's high F-value (12.139) and a p-value of .000 indicate significant disparities in perceptions about the effectiveness of radio programs in content dissemination. Q10, while also significant (p-value of .035), shows a lesser degree of variation (F-value 2.975) in how radio impacts decision making. Q11 reports the strongest variance (F-value 15.837 and p-value of .000), suggesting pronounced differences in how respondents feel radio aids in personal development.

Conversely, in Mon, results are more mixed: Q9's lower F-value (2.261) and a p-value of .086 suggest fewer consensuses on radio's effectiveness in content dissemination, indicating no statistically significant difference. Q10, however, shows a statistically significant variation (F-value 3.976, p-value .010) in perceptions regarding decision-making influence. Q11 shows negligible differences (F-value .178, p-value .911) in attitudes towards personal development through radio, indicating uniformity in responses.

In summary, the analysis highlights that the impact of radio varies significantly based on the district and specific aspects assessed. Kohima exhibits more pronounced differences across all queried domains, suggesting variable perceptions or effectiveness of radio programs among respondent's age groups. Mon shows significant effects primarily in decision-making, with minimal impact on content dissemination and personal development. This analysis underscores the need for targeted interventions to enhance the efficacy of radio programs, tailored to specific district needs and content areas.

Table 2: ANOVA on Effectiveness of Radio Programs in Providing Information and Development Content with Age Variable

Distt			Sum of	df	Mean	F	Sig.
			Squares		Square		
Kohima	Q24 How useful is	Between	28.393	3	9.464	7.795	.000
	the knowledge	Groups					
	acquired through	Within	116.567	96	1.214		
	the radio	Groups					
	programme?	Total	144.960	99			
	Q25 Are you	Between	23.549	3	7.850	7.319	.000
	satisfied with the	Groups					
	information	Within	102.961	96	1.073		
	provided by AIR?	Groups					
		Total	126.510	99			
	Q30 Are you	Between	8.177	3	2.726	4.687	.004
	satisfied with	Groups					
	development	Within	55.823	96	.581		
	programmes that	Groups					
	you listen through	Total	64.000	99			
	AIR?						
	Q31 How often do	Between	26.441	3	8.814	8.990	.000
	you listen to	Groups					
	development	Within	94.119	96	.980		
	related	Groups					

	news/information?	Total	120.560	99			
Mon	Q24 How useful is	Between	.339	3	.113	.223	.880
	the knowledge	Groups					
	acquired through	Within	48.621	96	.506		
	the radio	Groups					
	programme?	Total	48.960	99			
	Q25 Are you	Between	1.697	3	.566	.852	.469
	satisfied with the	Groups					
	information	Within	63.693	96	.663		
	provided by AIR?	Groups					
		Total	65.390	99			
	Q30 Are you	Between	.720	3	.240	.464	.708
	satisfied with	Groups					
	development	Within	49.640	96	.517		
	programmes that	Groups					
	you listen through	Total	50.360	99			
	AIR?						
	Q31 How often do	Between	11.766	3	3.922	5.343	.002
	you listen to	Groups					
	development	Within	70.474	96	.734		
	related	Groups					
	news/information?	Total	82.240	99			

Source: Researcher's calculation

The ANOVA provides insights into how different age groups in the districts of Kohima and Mon perceive the utility and satisfaction of radio programs. The analysis includes responses to four survey questions concerning these perceptions.

In Kohima, significant age-related differences emerge in the responses. The usefulness of knowledge acquired from radio programs (Q24) varies markedly by age, with a between-groups sum of squares of 28.393, a mean square of 9.464, and a significant F-value of 7.795, indicating strong age-based differences in opinions. Similarly, age groups significantly differ in their satisfaction with the information provided by AIR (Q25), demonstrated by an F-value of 7.319. Although the F-value is lower for satisfaction with development programs (Q30) at 4.687, it still indicates significant differences by age. The most pronounced variation among the age groups in Kohima appears in the frequency of listening to development-related news (Q31), where the highest F-value of 8.990 suggests significant variability in listening habits.

Conversely, in Mon, the analysis shows a largely uniform response across age groups regarding the utility and satisfaction derived from the radio programs, except in one area. Specifically, no significant age effects are seen in perceptions of the usefulness of the radio program's knowledge (Q24) or satisfaction with the information from AIR (Q25) and development programs (Q30), with F-values of 0.223, 0.852, and 0.464, respectively. However, the frequency of listening to development-related news (Q31) differs significantly among age groups, with an F-value of 5.343, pointing to varying engagement levels in listening habits among different age categories.

In summary, while Kohima displays significant age-related variations across all queried aspects of radio program engagement, indicating that age significantly influences how radio content is perceived and interacted with, Mon shows more uniform perceptions and satisfaction across different age groups, with the exception of how frequently they listen to development-related news.

8. Summary and conclusion

The provided ANOVA table examines the effectiveness of radio programs in two distinct districts—Kohima and Mon—across three specific areas: dissemination of development-related content (Q9), influence on decision-making (Q10), and impact on personal development (Q11). The analysis is segmented by district and further broken down by age groups. The data measures variability within and between these groups using Sum of Squares, Degrees of Freedom, Mean Square, and the F-statistic, which helps determine whether the variances in responses are statistically significant.

Overall, the ANOVA analysis reveals that radio programs' impact varies considerably by district and demographic groups, with Kohima showing more pronounced differences than Mon. This suggests a need for tailored radio programming that addresses the specific needs and perceptions of each district and respondent group. In Kohima, there is a clear indication of varied effectiveness, which implies that interventions could be targeted more effectively based on these insights. In contrast, Mon's results suggest a different strategy might be necessary, focusing more on enhancing radio's role in decision-making while maintaining the current approach in other areas. This analysis underscores the importance of demographic-specific research in designing and implementing development communication strategies through radio.

The ANOVA analysis examines the impact of different age groups on perceptions of radio programs' utility and satisfaction in Kohima and Mon districts, focusing on responses to four specific survey questions. In Kohima, distinct age-related differences are evident across all queries, with substantial variances indicated by significant F-values, particularly concerning the usefulness of knowledge (Q24) and the frequency of listening to development-related news (Q31). These results suggest strong age-based differences in opinions and listening habits in Kohima.

In contrast, the Mon district presents a different scenario where responses across age groups show more uniformity in their perceptions and satisfaction with the radio programs, with the exception of Q31 regarding the frequency of listening to development-related news, where a notable F-value of 5.343 highlights differences in engagement levels among age categories. This indicates that while age may significantly influence listening habits, it does not greatly affect the perceived utility or satisfaction with the content itself in Mon.

9. Conclusion

In conclusion, the ANOVA analyses reveal distinct differences in how radio programs are perceived and their effectiveness across the districts of Kohima and Mon, influenced by demographic and socio-economic factors. Kohima exhibits more significant variances among different groups regarding their perceptions on the effectiveness of radio in content dissemination, decision-making, and personal development, suggesting a highly segmented audience with specific needs and responses to radio content. In contrast, Mon shows less variability in perceptions, especially in content dissemination and personal development, indicating a more uniform audience response, albeit with some significant differences in decision-making perceptions.

These findings highlight the necessity for tailored radio programming strategies that address the distinct needs and perceptions of each district and demographic group. For Kohima, a targeted approach that considers the different impacts on various groups could enhance the effectiveness of radio interventions. Meanwhile, in Mon, strategies might need to focus on enhancing the influence of radio on decision-making while maintaining or subtly adjusting current strategies in other areas. Such a customized approach not only promises to improve the engagement and satisfaction of the listeners but also optimizes the utility of radio as a tool for development communication. This demographic-specific insight is crucial for designing effective media interventions that resonate well with and meet the diverse needs of different listener groups.

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The Bell Metal Industry: Growth and Challenges with special reference to the Bell Metal Manufacturers of Sarthebari, Barpeta District, Assam

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Abstract

The Assamese bell metal business is vital to the state's efforts to preserve its cultural legacy, create jobs, encourage tourism, maintain traditional handicrafts, and instil a sense of pride in the state's people. Its significance is social, cultural, and historical in addition to being purely financial. Bell metal work is a craft that has been passed down through the years, helping to preserve cultural identity. The researcher analysed the existing challenges faced by the bell metal industry of Sarthebari and its artisans. The study is based on both primary and secondary data. The researcher found that government can play important role in the development of this age-old tradition by implementing new schemes and making entrepreneurs more aware about the schemes.

Key Words: Bell metal, cultural legacy, entrepreneur, traditional handicraft.

1. Introduction

The growth of the cottage industries has been one of the most significant features of industrial development in India. This sector plays an important role in the economy of Assam. Assam has the distinction of first bell metal industry in the country. In Assam, Sarthebari in Barpeta District, is the main area of this type of tradition cottage industry. This is a household industry; workers are paid members of the family. Situated at about 90 Kms away from Guwahati city, Sarthebari is a town and a town area committee situated in the eastern most part of the Barpeta District of Assam. Sarthebari is the home of bell metal industry. Bell Metal is alloy of copper and tin (4:1 ratio of copper to tin). The artisans, known as *Kahaar or Orja*, continue to use the antiquated instruments needed for burning and shaping the metal. A variety of bell metal products are produced by the artisans like'Kahi','Bati','Bota','Taal',etc. In Assam, bell metal objects are used in religious ceremonies and marriages and have both practical and decorative significance.

Some historical event and local people reveal the existence of the bell metal since Mayuran period. Written documents trace its existence to the 7th century A.D. when Kumar Bhaskar Barma presented a 'Kangshapatra' (a bell metal item) to king Harshavardhan.

2. Review of literature

Choudhury (1966) opined that Kamrupa earned a good amount of foreign currency by exporting bell metal utensils during the Medieval Period (1200-1800). Kalita (2008) studied the problems of bell metal industry in Sarthebari. The study found the problems like lack of finance, scarcity of raw materials, lack of marketing information, lack of government attitude etc. Again, Taukdar (2010) in the study titled "Asom Gaurav Sarthebarir kanh silpar Samashya Aru Samadhan: Ek Parjyalochana" discussed the history of bell metal industry in Assam. Ahom regime gave lot of respect to the artisans. Ganguly et al. (2016) studied on the bell metal industry in West Bengal. The researchers studied the nutritional status, socio-economic background and occupational health hazards of bell metal industry workers of Bankura. The study was based on primary data and convenient sampling technique was used by the researchers. The researchers found that most workers were with age group 36-45 years. The gender wise mass of the population was males and majority of workers belonged to medium sized family system with joint family. The researchers also found that the average income is very low with Rs. 6,062 and the workers are thriving in poverty. Another important finding of the study was that the workers suffered from hypertension, vision disorder, respiratory trouble and musculoskeletal pain. In another study, Saloi and Barman (2020) highlighted the attractiveness of bell metal industry towards the new entrepreneurs in future. The researchers applied SWOT analysis and Porter's five force model to measure the attractiveness. The researchers found that there is lack of financial assistance and raw materials. The young educated youth are not attracted towards the profession. Another important finding of the study is that the bargaining power of buyer is high in case of bell metal industry. The artisans feel threat from the substitute product against the bell metal products. The researchers suggested to provide geographical indication on the bell metal products of Assam for unique identity. In the same measure, Bhuyan and Singha (2023) studied the socio- economic condition of bell metal artisans. The study found that the bell and brass metal artisans earns between Rs. 6000 and Rs. 15000 and 75% of the artisans have no savings and the standard of living of the artisans are at average.

At the above backdrop, and emphasizing for further development of this industry, a piece of research on the growth and challenges of bell metal industry is considered.

3. Objectives

The study has the following objectives-

- a) To examine the current status of the bell metal industry of Sarthebari.
- b) To analyse the existing challenges faced by the bell metal industry of Sarthebari and its

artisans.

c) To examine the Government assistance for the upliftment of bell metal industry.

4. Research methodology

The study is descriptive and exploratory in nature.

4.1 Size of the universe

The size of the universe is the whole village of Sarthebari of Barpeta District, Assam. There are about 300 units in the village, manufacturing varied bell metal products with 3100 artisans approximately, who are permanent, part time and temporary workers respectively, producing the bell metal products.

4.2 Sample size

The sample size for the study is 50 units, who are manufacturer of bell metal products.

4.3 Sampling technique

Snowball sampling technique has been used to select the sample at Sarthebari, Barpeta District. For the study Namsala village, Gomura village, Karakuchi village, Dabar supaand talukdar and Supa Village has been selected as study sample area and from each sample area 10 sample units has been selected, measuring at a total of 50 sample units.

5. Bell metal industry in Sarthebari, Assam and bell metal item making process

Sarthebri in Barpeta District is the second largest handicraft centre of Assam. About 40 percent of the people in the village are engaged in the cottage industry. The community engaged in the bell metal industry have a unique character in terms of livelihood, options, attitude towards life and cooperation of the people in the area. On 31st December,1995, Sarthebari was declared as a town, but society, manners, customs, conduct, and tradition made it free from urban life style and reflects traditional rural system. The village development committee is formed by selecting the experienced people where Kanhar (Bell metal workers) are also involved as representative. The bell metal workers joined in the celebration of socio-cultural events. The making process of bell metal items is highlighted below:

Carving imprints on the bell metal ware

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Bhor mara or carving rings on the bowl

Table 1(a) and 1(b) shows the opportunity mapping of the Sarthebari Bell Metal Cluster and Table 2 highlights SHOT Analysis.

Table 1 (a): Opportunity mapping of the Sarthebari Bell Metal Cluster

Raw Material	Health and Safety	Sheet Making	Process	Ergonomics
Local community store	Better	Roller machine,	Skill upgradation and	Right body
for better quality raw	hospital, mask	sheet cutting	training from time to	postures,
material and its	& safety kits	machine	time, awareness of	awareness
availability,			modern trend	about
Training centre				techniques

Source: Field survey

Table 1 (b): Opportunity mapping of the Sarthebari Bell Metal Cluster

Stacking & Packing	Transformation	Branding & marketing	Dealers	End users
Better stacking & space for storage, better display or exhibition room	Better connectivity with internal roads, A common vehicle for the cluster	Establishment of a cluster brand, proper branding & marketing	Looking for other dealer, fixing base rate according to the raw material	Aesthetic products, targeted area

Source: Field survey

Table 2: SWOT Analysis

	v
Strength	Weakness
a. Skills to make handmade utensils	a. Depending over dealers
b. Government support	b. Shortage of raw material
c. Work potential	c. Limited products range, surface
d. Common facility center	finishes and quality
e. Family business	d. Lower wages
f. Traditional craft skills	e. Traditional tools and equipment
g. State identity	f. High competition within the cluster

h. Having association	g. Unaware with latest technology and working processh. Casual attitudei. Financial condition.		
Opportunity	Threat		
 a. Need modern machines to avoid health problems and to save time for their over life b. Expansion of market at national and international levels. c. Training program could be organized from time to time d. Establishment of brand identity as a cluster e. Joint endeavor to increase the production and sell f. New and diverse range of products g. Variation & value addition to enhance the quality. 	 a. Shortage of raw material & unavailability throughout the year. b. Monopoly of dealers and intermediates. c. Young generations morning towards town to find other jobs. d. Competition and expansion of market at national and international level e. Other materials products are taking place instead of bell metal products. 		

Source: Field survey

6. Challenges

Despite being an important component of Assamese tradition and culture, the bell industry is facing number of challenges. The industry is facing competition from machine made products from outside Assam. Challenges faced by bell metal industry and workers are as:

- a. Lack of capital and fund: There is an acute dearth of capital for the artisans. Lack of awareness of various programmes and schemes as well as hesitations and illiteracy act as a major hindrance in the procurement of fund.
- b. Raw material problem: The major raw material problems for the artisans are
 - i. Availability and price of raw material control by traders resulting the production of artisans, firms depend on whims of the traders.
 - ii. Cost of energy seems to be high which affects the competitiveness of products.
 - iii. Scrap quality is poor as a raw material which often causes cracking and spillage during casting. The wastages add to the cost of production.
- c. Dependence on Mahajan: Artisans must depend upon Mahajan for scrap and funds and most of the time the profit earned by the artisans have to use for payment to the Mahajan.

- d. Training problems: The training provided to the artisans is not sufficient because it is theoretical in nature and there is lack of practical knowledge.
- e. Pollution from smoke and metal fumes: Artisans does not use pollution abetment measure and as a result they inhale large amounts of smoke and metal fumes as there is no chimney and exhaust fans.

7. Government's assistance to the bell metal industry

The Ministry of Micro, Small and Medium Enterprises (MSMEs) is implementing the National Manufacturing Competitiveness Programme, MSME Cluster Development Programme and Credit Linked Capital Subsidy Scheme for providing assistance towards modernization. The benefits are also provided under North East Industrial and Investment Policy (NEIIP) and under the State Industrial Policy to bell metal industry in Assam. Development Commissioner (Handicrafts), Ministry of Textiles is implementing various generic schemes for promotion and development of handicrafts including bell metal, namely Baba Sahib Ambedkar Hastshilp Vikash Yojna, Design and Technology Upgradation Scheme, Handicraft Artisans Comprehensive Welfare Scheme and Infrastructure and Technology Development Scheme.

8. Findings and Suggestions

Following are findings of the study:

- i. The study found that manufacturers are male and they are between 30 to 50 years. Majority of the *kahaar saals* (the place where bell metal products are manufactured) have between 5 to 10 workers employed in it.
- ii. Raw materials are procured directly from local cooperative of Sarthebari and remaining procure it from within or outside the Sarthebari location apart from the Sarthebari cooperative.
- iii. The main problems faced by the units are a smaller number of raw material supplier, lack of transport facility, financial problem and lack of market information.
- iv. Manufacturer mainly use handmade tool to manufacture bell metal products and only a few use light machineries with handmade tools.
- v. The peak season for getting orders of the bell metal items are throughout the year. Products are used daily basis or on yearly contract basis.
- vi. Units are not aware about government sanctioned funds only a few get practically funds though they are not satisfied with the assistance.
- vii. The Sarthebari bell metal industry is creating employment opportunity for *Kahaar* communities, that is a growth prospect indicator.

Based on the findings, it is suggested that:

- i. The supply of raw materials should be made available. Government should take proper initiative to provide adequate supply of raw materials at affordable price.
- ii. The bell metal products should be more diversified and modernized to cope up with the changing taste and preference of the customers.
- iii. The government should take initiative to provide financial assistance to the manufacturers. Health awareness camps should organize and schemes should be introduced for health securities for the manufacturer and artisans.
- iv. The region should be developed as a tourist center. Since the region is famous for ethnic and traditional products, by attracting tourist there will be exposure of this sector.

9. Conclusion

The Sarthebari bell metal industry seems to be the best bell metal industry in the country. Majority of the population is engaged in the bell metal manufacturing items and has *kahaar saals* which are even more than 100 years of age with average annual revenue of Rs. 1 lakh to 5 lakhs. Assam's Sarthebari bell metal crafts represent a vibrant and age-old tradition of designing that has gained recognition all over the world. With proper initiative of the concerned cooperatives, the design institutes, Government and the challenges can be overcome and the industry can have a better growth prospect in the coming days.

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Unveiling the Complexities and Challenges faced by Women in Administrative Positions in Nagaland University and Affiliated Colleges under Nagaland University

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Abstract

The underrepresentation of women in administrative positions within higher education institutions in Nagaland is highly concerning. The past few decades have shown striking progress in gender equity in academia, but women remain disproportionally scarce in administrative positions. There is gender disparity in academic administrative positions. Some concealed barriers and challenges hinder women's advancement in administrative roles. Gender stereotypes, structural inequalities within the institution, social mindset, lack of role models, familial responsibilities and some other multifaceted factors may lead to women's underrepresentation. The present paper tries to understand the various grounds of underrepresentation and suggests ways to overcome the barriers causing the underrepresentation of women in administrative positions.

Keywords: Gender equity, Underrepresentation, Administrative position, Role models

1. Introduction

The past few decades have made academic accomplishments conspicuously known for women with the increase in women's participation in higher education. Studies advocate that a rise in higher education for women enhances the standard of living and decision-making power. Despite these expansions, women remain significantly underrepresented within higher education institutions as academic leaders. This matter has far-reaching implications for the effectiveness of the organization and diversity. Some complex factors lead to the underrepresentation of

women in administrative positions in higher education. The research paper aims to shed light on the barriers that hinder women's advancement as academic leaders by delving into the underlying causes. The present issue is multifaceted and influenced by various factors such as personal, historical, societal, and institutional. Stereotypes and discriminatory factors disadvantage women in academic leadership. Men and women hold ingrained beliefs associating leadership qualities with masculine traits. However, women in academia face unique challenges related to work-life balance, caregiving responsibilities, societal expectations, motherhood, mentorship, unseen gender discrimination, and other opportunities.

The history of higher education is male-dominated. Women faced substantial challenges in accessing education and opportunities professionally. To dismantle these barriers, strides have been made across the globe. Gender discrimination in certain areas remains a reality and continues to influence the configuration of leadership positions. Stereotypes and gender discrimination play a substantial role. Further, the lack of female role models and mentors worsens the situation of underrepresentation of women in managerial positions within higher education. The absence of female leaders in higher education deprives aspiring women of essential guidance and support obligatory for piloting the complexities of academic leadership.

Statistics show, that in academia, women have refitted men in pursuing higher education in Nagaland. Studies found more women are attending colleges at both college and university levels in the quest for higher education. In the highest level of education which is the doctorate of philosophy out of 232 scholars,138 are female scholars and 94 male scholars (AISHE Report 2016-2017). Female teachers are much ahead of male teachers in higher education in Nagaland in the various teaching positions. Females are way ahead of males when it comes to teaching positions. The report says 2193 teachers are teaching at various levels of higher education out of which 993 are men and 1205 are women and 02 persons with disability. For professors and other senior positions males outnumber females with a ratio of 108 males and 45 females but when it comes to lecturers and assistant professors, women are much ahead of men with a ratio of 955 women and 701 men. Nagaland: Women surge past men in higher education, (2011) While there is a higher representation of women in teaching roles, men tend to outshine women in senior positions such as professorships and higher roles of administrative positions which is a matter of great concern. The present paper tries to understand the various complexities around why there are very few women in higher administrative positions even though women outnumber men in higher education and teaching positions. The present paper aims to explore the barriers by probing into the magnitudes of the issue, illuminate the pathways by highlighting the various causes, identifying the gaps, and proposing innovative solutions.

2. Objectives of the study:

The objectives of the study are

- i. To identify the barriers that prevent women from advancing to managerial positions in higher education.
- ii. To investigate the policies and strategies to navigate the barriers causing women's progress
- iii. To examine the various factors causing the underrepresentation of women in administrative positions in higher education.

3. A brief review of the related research

Shimray,(2004) in the study Women's Work in the Naga Society: Household Work, Workforce Participation and Division of Labour, the study found Nagas follow a nuclear family so there is no joint family system among the Naga society with a division of labour based on gender. The study also found that Naga women at present are working outside the household but at the same time have no relaxation in the household chores women have to take the extra responsibility of maintaining the household chores invariably, as there is no system of joint family in the Naga society, therefore Naga women have to take care of the entire responsibility of household chores along with outside office activities.

McIntosh, et.al (2012) studied Motherhood and its Impact on Career Progression. The study highlights motherhood limits career progress in women. The study finds that motherhood is unfavourable to career progression due to countless multifaceted factors such as career breaks, dependent children, working hours, etc. Women's career progress is restricted due to school-going children who are fully dependent causing career breaks in women. The study further confirms that gender has a relatively positive impact on career progression, women's progression is reduced incrementally as she has more children.

Baksh, (2013) attempted a study on Problems faced by Married Women Teachers having Multiple Roles, the study is descriptive where a sample of 192 women teachers from Himachal Pradesh was taken for the study. An interview schedule was used for primary data. The main findings of the study were working women are under the pressure of double ambitions such as a flawless wife and an intelligent mother and a fruitful working woman in the office demands energy and time leading to many conflicting situations at home and other issues. The study found anxiety, headache, weakness tiredness etc. along with depression, stress and frustration are visible in working women. Problems of personal care are seen within the age group of 31-40 years and 51-60 years. The age group between 21 and 40 face personal problems and does not enjoy much freedom economically. The study further found that the status of women is hampered due to the appointment structure, incentives and pay scale. The study further found

those women in joint families face more personal life problems due to family restrictions from the elders. Working women face another major issue of childcare because of time constraints and the unavailability of childcare centres.

Thirumal & SP, (2016) conducted a study on Women and Leadership -A Critical Evaluation of barriers in India. The study found an increasing trend in women in the workforce. The study found despite the increase in the number of women in the workforce, there are some unseen barriers for women to reach the top positions. The study found both men and women are equally intelligent, determined, and have abilities, men are dominant over women, blocking their promotions which are silently done and is a major hurdle for women in reaching top positions. There are societal barriers. Men are appraised and women are discouraged in achieving top administrative positions.

Longkumer & Bokth, (2020) conducted A case study on Ao Nagas of Nagaland on the issues of gender justice. The study exposed that Ao Naga women have been inferior to men since time immemorial which is not only because of the customary laws prevailing among them but because of the societal activities and the customary laws and the formation of the village where men played a projecting role and the traditional policies which was set denied to women till date. The study revealed that women were kept away from Ariju, the Morung's administration. Strong inheritance and clanship rules among the Ao nagas have affected women's lives greatly. Men enjoyed high status which prevails even today. The inequality in the power of power among the Ao Nagas has deeply affected the lives of Ao Naga women.

Ravindran & Anita,(2020) found that despite the increase of women in higher education in the past few decades, women's participation in the workforce and representation of women in authority are fewer. The study suggested if certain guidelines are implemented in the provision systems, such as attaching creches or daycare facilities in the workplace, community-based care centres for elders, enrolment of labour laws that allow men and women to be equal partners in raising children, improving transport facilities both in urban and rural areas can attract more women in the workforce. The study suggested that curriculums at all levels should avoid gender-based roles so that the outlook of the generation changes.

Singh & Sharma, (2020) attempted to study the Life Balance of Married And Unmarried University Teachers In Punjab State, the study exposed unmarried teachers maintained a good work-life balance as compared to married ones because married teachers had triple the responsibilities of maintaining their home, and parental home and their office. The study reveals that married women were more committed to their families and personal lives. The study further displayed that there is no difference in workload between married and unmarried women, treatment, policies, pay and other benefits. The study highlights that unmarried women

can do better professionally as they can spend extra working hours. Thus, several women prefer to remain single.

Prashanth & Santosh,(2021) attempted a study on the importance of women participants in higher education in higher education: A case study of Karnataka, India. The main finding of his study is a majority of women with post-graduate degrees are working in various colleges in the position of Assistant Professor with a salary of less than 40,000 INR. More than 50% of women have experience of more than 5 years and are seeking administrative work Women are perceived as equal to men and are supportive of other women working in their workplace. The study also found majority of women believed that they are more accomplished than men and can manage their team and work skillfully. The majority believed that they were working harder than men but were paid less but at the same time agreed that they could manage work and home efficiently but there is an observable gender difference in their workplace.

Gaikwad & Pandey, (2022)in their study, Transition to the Top: Learning from the Success Stories of Indian Women Leaders in Academia found women encountered numerous challenges in proving their leadership, ability and earning admiration from their colleagues who are male. The study found familial support and upbringing played a major role in enabling women to succeed in academia. The study further suggested if some strategies such as mentorship training, keeping high self-confidence, and uniqueness are implemented such challenges can be overcome to a great extent and help women to reach their desired goal in holding leadership to a great extent.

4. The working concepts

Concept of educational administration

The ability to manage all the happenings in an educational institution or an organization by an individual or individuals is understood as educational administration. Administration in education is concerned with formulating plans and strategies for education, scheduling educational activities, and organizing, directing and controlling activities are the major functions of educational administration.

Concept of challenges in administration

Challenges denote tasks or glitches an individual faces in life. Challenges test a person's aptitudes, skills, and capacity to resolve these encounters. Challenges can be in any form such as personal goals or externally-imposed which an individual encounters in the work environment. Challenges can serve as learning new skills or pushing beyond the comfort zone and overcoming obstacles. The purpose of challenges may vary from situation to situation. Challenges at times serve as a means of achievement or failure. Challenges in administration refer to the various hitches an administrative professional may encounter in performing his/her duties.

5. Methodology

The present study is qualitative. The various data used in this paper incorporate both primary and secondary data. The researcher collected the primary data with the help of a questionnaire which was constructed by the researcher herself. Purposive sampling was adopted to obtain the basic data. Data was collected from faculty and administrative officers like Deans of schools of Nagaland University (Kohima Campus, Meriema) as well as from some affiliated colleges with the help of self-constructed questionnaires. Semi-structured questions were used for the said purpose. A total of 20 respondents such as, Departmental heads of Nagaland University and affiliated colleges, Principals of colleges under Nagaland University, administrators' and dean were selected for the said purpose. Data was calculated through percentages and thematically for the open-ended questions Information gathered through secondary data includes journals, newspapers, internet sources, etc. Secondary data was used in the present paper to enhance the original data.

6. The Genderwise Scenario

The genderwise representation of higher education in Nagaland is shown in Table 1.

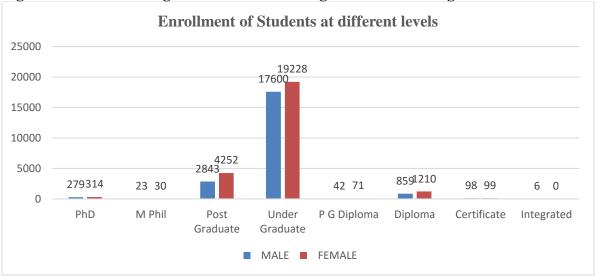
Table1: Genderwise Enrolment in Different Levels of Higher Education in Nagaland

EDUCATION LEVEL	MALE	FEMALE	TOTAL
Ph. D.	279	314	593
M. Phil.	23	30	53
Post Graduate	2843	4252	7095
Under Graduate	17600	19228	36828
P. G. Diploma	42	71	113
Diploma	859	1210	2069
Certificate	98	99	197
Integrated	06	00	06

Source: The Morung Express, Friday, 10th May 2024

The data has been represented graphically in Figure 1

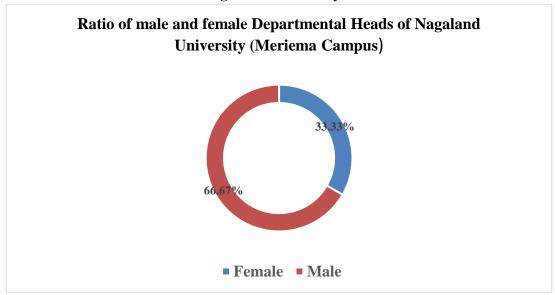
Figure 1: Women in Nagaland are Proliferating in the Field of Higher Education



Source: The Morung Express, Friday, 10th May 2024

Figure 1 shows the genderwise enrolment of males and females in various higher education levels. Females are proliferating at various levels in higher education. Studies have also found that women outnumber men in teaching positions of Assistant Professors. Still, there is a sudden drop in the positions of administrative heads and managerial positions.

Again, Figure 2 shows Data of Head of the Departments and Dean in Meriema Campus, Nagaland University



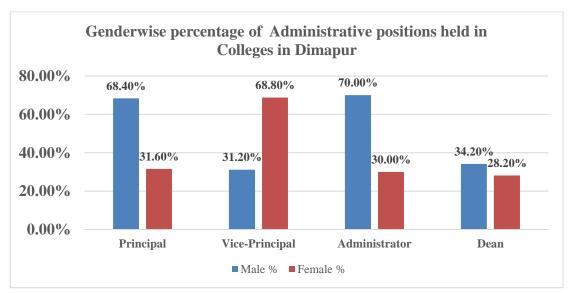
Source: Self-investigation through personal meeting

Table 2: Genderwise Percentage of Principals, Vice-Principals, Administrators and Academic Deans of Various Colleges in Dimapur affiliated under Nagaland University

Sl.No	Designation	Male %	Female %
1	Principal	68.40%	31.60%
2	Vice-Principal	31.20%	68.80%
3	Administrator	70.00%	30.00%
4	Dean	34.20%	28.20%

Source: Self-investigation through personal meeting

Figure 2. Genderwise Percentage of Principals, Vice-Principals, Administrators and Academic Deans of Various Colleges in Dimapur affiliated under Nagaland University



Source: Self-investigation through personal meeting

7. Findings and discussions

Findings based on the responses given by the Head of the Departments, Nagaland University (Meriema Campus), Deans of Schools and the Head of the Department of Colleges affiliated under Nagaland University and Academic Deans from Colleges from Dimapur district, the study reveals that the majority of the respondents agreed that there are very few women in senior

administrative positions such as Professors, Deans, Head of Departments and Principals of the affiliated colleges under Nagaland University. Only 14.29% of the respondents disagree that there a very few women in senior administrative positions and 7.14% of the respondents strongly disagree that very few women hold administrative and managerial positions.

The study reveals that 78.50% of the respondents holding various positions in Nagaland University and colleges under Nagaland University thought that no barrier within the institution prevented women from achieving managerial positions however,21.40% of the respondents thought some barriers prevented women from holding managerial positions to a certain extent.

The reasons given by the respondents are:

- The study discloses familial responsibilities as a primary factor and societal obligations as a secondary factor leaving little room for serious research writings and publications to fulfil the criteria for promotions.
- The study further found that the campus is not sufficiently equipped to ease women's needs with creche and schools for children along with infrastructural facilities.
- The study brings out that transportation poses a huge problem i.e. no bus or taxi services, no food courts and well-furnished restrooms pose great difficulties for women to do some serious academic work.
- Lack of confidence in women can pose a challenge and stand as a barrier for women in holding managerial positions.
- The multiple roles played by women, especially working housewives, can be a major challenge in terms of time management, stress, focus, efficiency, etc.
- Balancing work and personal life is a challenge most working women face, sometimes leading them to compromise on their career positions.
- The study found motherhood and work-life balance impact the progress of women in their careers with the increasing demands of the workplace.

The second objective has investigated the policies and strategies to navigate the barriers causing women's progress. Findings based on the responses given by the Heads of the various Departments, Nagaland University (Meriema Campus) Deans and Principals of Colleges affiliated under Nagaland University from Dimapur district, the study revealed that only 14.29% agreed that there are policies/strategies to navigate the barriers that cause women's progress. The majority of the respondents think that there are no policies or strategies to navigate the barriers causing women's progress. The policies/strategies and programs conducted are mentioned as under:

• Childcare leave is granted by the competent authority to women employees and single male employees having minor children for a maximum period of 730 days during their

- entire service to take care of two eldest surviving children below the age of eighteen years for their education, sickness and any of their children's needs.
- In respect of a child with a minimum disability of forty per cent, it is permitted for an offspring of any age subject to submission of the certificate.
- Childcare leave is granted for three spells in a calendar year. Single female government servants shall be extended to six spells in a calendar year.
- Childcare leave may not be granted for less than five days at a time.
- During the period of childcare leave, salary shall be paid 100% for the first 365 days and at 80% for the next 365 days.
- Childcare leave may be combined with any other kind of leave which is due and admissible not exceeding 60 days without the production of a Medical Certificate. (MC)
- Childcare leave may be availed during Leave Travel Concession (LTC)
- There is a provision for maternity leave for a period of 180 days and 45 days in case of miscarriage with full pay which may be combined with any kind of leave up to 60 days.
- There are the Grievance Redressal Cells and Cells for equal opportunity.
- Women's Study Centre, Meriema campus, conducts various programs on empowering women such as motivational lectures and celebrates International Women's Day on the 8th of March every year.
- Seminars on women empowerment and harassment to generate awareness and practice of gender equality are conducted.
- Colleges observe gender sensitization every year.
- The undergraduate curriculum in colleges emphasises gender equality.
- Dramas, plays, seminars, and workshops on women's mental health, gender equality etc targeting women's empowerment are conducted by the women's study centre, at Nagaland University.
- Most importantly women's study centre carries out research projects focussed on women's activities and
- Skill-based training like computer skill development and the importance of saving accounts was initiated by the women's study centre.
- Except for government colleges, there is no provision for childcare leave in most other colleges.
- In a few private colleges childcare leave is granted without salary.

The third objective has examined the various factors causing the underrepresentation of women in administrative positions in higher education. Findings based on the responses given by the Head of the Departments, Nagaland University (Meriema Campus) Deans and Head of The Department of Colleges affiliated under Nagaland University from Dimapur district, are highlighted as:

Responses from University Heads

- Promotions are based fully on competencies, seniority and institutional promotional rules and procedures.
- There are no such policies that either support or hinder women's advancement in the university.
- Inadequate technological skills in women are a huge setback that most women face in academia.
- Promotions and holding of administrative positions are based on the capability and suitability of candidates.
- Improper infrastructural facilities pause women in many aspects such as unavailability of
 creches, schools, transportation etc, most mothers need to rush home or pick up their
 children from school which leaves no space for women to focus on research and other
 academic developmental works.
- Due to the dual role of home and institution, women are unable to do serious research work and studies, leaving no room for promotions and holding administrative positions.

Responses from College Heads

- Most of the colleges do not have promotions or increments based on publications and other academic achievements which demotivates women to think of serious research and academic studies.
- In most colleges, an educator is appointed as an assistant professor and retires as assistant professor there are no associate professors and professors rank in private colleges which causes demoralization or no inspiration for academic work.
- Most colleges do not grant study leave; study leave is granted without salary in most colleges, preventing women from achieving academically.
- In some of the colleges, teachers are bound to resign due to non-availability of resources for academic upgradation.
- Most of the women teachers in colleges are not ready to hold managerial positions due to familial responsibilities, travelling etc.
- The study found there is a minimum increment or incentivises for managerial positions, but numerous workloads compelling women not to take up administrative responsibilities.
- One of the most important findings is that most women are too satisfied and have no intention of upgrading themselves, nor want to take responsibility, this hampers in achieving academic heights.
- Promotions are decided upon experience, qualification and specialization.
- There is no childcare leave in most colleges.

8. Suggestions

The traditional gender roles often emphasize women's responsibilities in the domestic sphere prioritising familial responsibilities over career, women at times hesitate to pursue senior roles due to added pressure because administration and managerial positions often demand time and energy which most women are deficient in time and energy due to dual responsibility. Career advancement demands the role of mentorship, women do not get enough guidance through academic challenges due to lack of mentors and mentorship programs. Institutional barriers such as working for longer hours and often women being perceived as less committed and less accomplished, lack of leadership development programs specifically for women, work-life balance, lack of flexibility in policies within the institution, social perception of administrative positions more suitable for men, economic constraint, the influence of patriarchal norms etc can discourage women who need to be addressed with intentional institutional policies, mentorship programs and inclusive culture that supports women to pursue leadership roles could be more furthering for women academically and socially.

Based on the findings of the study, the following suggestions are drawn:

- Conduct interactive programs to discuss service rules, consultations for any queries, challenges faced by members and information's on journal publications and projects.
- Women must be mentally prepared to hold administrative positions and prepared psychologically and mentally.
- Women must develop themselves with advanced knowledge in specific disciplines and general knowledge.
- Get trained in computer, social media and technical skills.
- Women should upgrade themselves with digital literacy.
- There should be flexibility in work assignments for women, and resource groups to connect and share experiences to support each other.
- Women need constant motivation to climb up the ladder in areas of academic guidance required to be in higher positions.
- Women must voluntarily come forward to hold academic positions.
- Women should equip themselves with the necessary qualifications.
- Women must be keen to hold academic positions.
- There must be provisions for women in intensive training and development programs dedicated to women.

9. Conclusion

There is an increase in the academic representation of women in various teaching positions in higher education with the phenomenon where women outnumber men in the positions of assistant professors. Despite the fact, there is a decline in women holding administrative positions which can be because of a variety of factors such as systematic, cultural and institutional. The status and positions of women are a subject of investigation. The present situation mirrors similar trends globally but in the case of Nagaland, it is influenced by unique socio-cultural factors along with various other factors. Career progression in academia tends to follow a 'leaky pipeline" model which is attributed to systematic barriers, and discrimination with the problems of work-life balance in women disturbing both personal and professional responsibilities. Women are found to work outside the household, but there is no reduction in women's work either in maintaining the household or on the work front. Shimray (2004) Women in academia often face gender challenges related to work-life balance as compared to their male counterparts. Research found that women are likely to take on caregiving roles at home which limits the time and flexibility needed in career advancement. The study also finds maternity leaves, family obligations and the second shift of domestic responsibilities inappropriately affect women often leading them to no room for serious research and academic writing with fewer opportunities for promotions or involvement in academic leadership roles. Studies find that many institutions have unwritten policies and norms favouring men's advancement. lack of mentorship prospects and organizational cultures can also hinder women's progress to leadership roles. Mentorship plays a key role in networking, gaining visibility and receiving guidance on piloting organizational policies which are critical for climbing up to leadership roles in any institution. Traditional gender roles and cultural expectations influence women in career advancement. The study found that in most colleges, there are no promotions from assistant professors to any upper positions like associate or professor rank except a mere increase in the salary based on years of teaching experience which is a major demotivating factor leading to little interest in any research writings /works. The Department of Higher Education needs to take the initiative and frame some policies/criteria for promotions for those who are working in private colleges affiliated with Nagaland University along with uniform pay scale, maternity leave, childcare leave, promotions and other incentives for all colleges affiliated under Nagaland University This issue is very serious and needs to be addressed at the earliest to boost women in academia. Higher education institutions in Nagaland need to implement policies that are gender-sensitive along with mentorship programs for women. Initiatives must be taken to support and encourage women in transitioning to administrative roles. Institutional reforms and inclusion of creche facilities along with societal shifts in the perception of women in leadership will be crucial and the need of the hour for improving the representation of women in leadership positions in academia.

10. Recommendations

It is recommended that

- i. Conducting mentorship programs regularly for women in leadership roles and providing guidance and counselling for women holding administrative positions can greatly help women in holding administrative positions.
- ii. Encouraging women to hold administrative positions can bring positive results.
- iii. Institutional campuses need to be more equipped with childcare and daycare facilities,

- playschools, and creches.
- iv. Food courts and transportation facilities need to be easily accessible and affordable within the campus.
- v. The mindset of the division of work based on gender must be changed with the changing needs.
- vi. Change the traditional mindset of men in gender roles.
- vii. Women need to be more technologically equipped, so special technological and digital literacy training will help them develop academically.
- viii. Women must upgrade themselves by doing some serious research writings.
- ix. Women must be ready to take challenges and move forward for academic advancements.

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