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Editorial Note

Progression in any work is proven by the quality of results that gradually produces in any given activity. One of such progressions is the research output that publishes in Dimapur Government College Journal. This Journal is a multidisciplinary in its nature. It provides opportunities to academicians, scholars and writers from diverse fields to discuss their research investigations. The Journal creates opportunities for the writers to present their research questions and findings making the Journal a good piece as a reference material for further research as well as for policy matters. The Journal has improved a lot in its quality writings over the years. The Journal receives the research articles not only from within the College and the State but also from across the country on varied issues of local, regional and national importance.

The Journal while maintaining its quality control, the recommendation of papers for publication is done through a process of rigorous screening and review by a panel of editorial board, plagiarism checks and review from external peer reviewers before accepting for publication. The entire process takes care of the papers for maintaining a standard mechanism and ethics of research publications.

The discussions in this volume comprises of various important aspects of the much needed areas of studies such

as the problems and challenges faced by entrepreneurs, agricultural production and productivity, performance of mutual funds in the country, the traditional dyeing process, nanotechnology based drug in cancer treatment, post colonial readings, students' perspective on online teaching-learning system and the cultural aspects of Rais community. Hence, the editorial team has the confident that the deliberations made in this Journal will augment the growth and progress of an academic community as well as the society at large.

The Editorial Board would like to express heartfelt gratitude to the external peer-reviewers; Prof. B. Kilangla Jamir, Prof. N. Das, Prof. Z. Ezung, Dr. Bora, Dr. Anamika, Dr. Christina Kekhrieseno, Dr. Aienla Imchen and Dr. Vitsosie Vüprü. Their valuable feedback and recommendations have made the Journal a standard one. Also, hearty appreciation and gratitude goes to the researchers and scholars for their contribution which makes this Journal possible.

The Editorial Board is, therefore, pleased to present the Volume-II, Issue No. 3 of Dimapur Government College Journal bearing ISSN: 2349-8269.

Editorial Board

Foreword

I am glad to know that the Journal Editorial Board of Dimapur Government College (DGC) is bringing out Volume II, Issue No. 3, an annual peer-reviewed research journal for 2022. The Journal is multidisciplinary in nature. The discourse in the current issue consists of thought provoking articles on diverse topics ranging from Economic & Finance, Agriculture, Teaching & Learning, Language, Role of nano-technology in medical science, Traditional dye art of Chakhesang tribe and Changing cultural glimpse of Rai community in Sikkim. The articles are well planned and relevant to contemporary social issues.

Curiosity and research aptitude are driving forces for mankind to see beyond the horizon. In this context, the college journal provides a platform where a new research idea can be experimented, which afterward can be taken to national and international journals of repute with an extended framework for a wider and diverse research community. This process will help the researchers as well as the affiliating institute to get more visibility and recognition. I am hopeful that the articles in the current issue will further trigger the imagination of the researchers to strive for best till they get better.

I appreciate the effort and hard work of the authors for their research contribution to the current issue. I sincerely extend my heartfelt thanks to the reviewers for their guidance to give

a shape to a research idea of the authors. At the last but not the least, I extend a well deserved thanks to the Editorial team for their perseverance, relentless hard work to bring out the DGC research journal in its present form. I join my colleagues to congratulate the Editorial team for successfully bringing out the current issue. I take the opportunity to wish all the best for further improvement in the quality of the journal, with an objective to be eventually listed in the UGC-CARE journals. Looking forward for more exciting and enriching articles in the near future.

Prof. Sanjay Sharma

Principal

Dimapur Government College

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Local Entrepreneurship in Nagaland: Problems and Challenges with Special Reference to Dimapur

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Abstract

An entrepreneur is someone who has the ability and desire to establish, administer and succeed in a start-up venture along with risk entitled to it in order to make profits. In Nagaland, though the growth of local (Naga) entrepreneurship has started late, many forms of enterprises owned by Naga people have come up at a quick pace in the last decade. In the present study, some variables of business problems and challenges

were identified for analysis. A study of comparative effects between male and female local entrepreneurs were taken into consideration. Also, the factors responsible for the rise of local entrepreneurship were taken alongside the problems and challenges faced by them. The study concluded with mixed results in concurrence with the given hypotheses.

Keywords: Entrepreneur, local, challenges, Nagaland, problems, business, male, female.

Introduction

In any community, the entrepreneur plays a vital role in the growth and progress of the economy. An entrepreneur is a person who accepts challenging roles to meet his/her personal needs and become economically independent (Cooper and Dunkelberg, 1986). An entrepreneur can also be defined as a person who devises, sets up and runs a new business or businesses. The best example of entrepreneurship is the starting of a new business venture. Entrepreneurs set the example of turning dreams into reality.

Becoming an entrepreneur might seem risky and scary but this unpredictable venture cannot be side-lined for any society to grow. In Nagaland, one of the main reasons for the surging growth in entrepreneurial ventures by the Naga people is the change in the mind-sets of the young population who are bringing the change in the society, breaking the barriers and making a niche for themselves in the paths of business ventures. It is observed that there is growth of enterprises owned by local population in Nagaland alongside the non-local people though the number of latter are still comparatively much larger.

In Dimapur, the business has been shaped by the non-locals and that they hold the greater share of the enterprises with only a small number of local participation. But with the passage of time, number of local people engaging in entrepreneurial activities is increasing.

Problems and Challenges of Entrepreneurs

Every business enterprise has its own unique set of problems and challenges that collectively influence its profitability and

competition in the market. However, by problem, it meant those constraints which are exogenous to the enterprise. In other words, problems are generally the external forces that are beyond the control of an entrepreneur. On the other hand, challenges are those constraints which are endogenous to the enterprise that threatens to hinder or derail a business' pursuit of success. Challenges are within the control of an entrepreneur which can be overcome by sheer commitment and dedication.

Significance of the Study

The field of entrepreneurship still remains untapped in many aspects in Nagaland. It is pertinent to understand the causes of rapidly rising entrepreneurs and look into the problems and challenges that act as roadblocks or a hindrance and suggest corrective measures. This study attempted to analyse the various variables of problems and challenges of entrepreneurship which are local specific to match the context of Nagaland state. Thus, it will help the enthusiastic entrepreneurs to understand the situation and the prevailing trends in the field of entrepreneurship in Nagaland.

Literature Review

There are numerous discourses of entrepreneurship and diverse studies with regard to the examination of the problems and challenges of entrepreneurs in other parts of the world. In Bulgaria, the key institutional agents such as lawmakers, tax collection agencies and regional authorities issuing various business permits and licenses whose very functions are unpredictable, corrupt and hostile, are all detrimental to the growth of private entrepreneurial firms (Manolova and Yan, 2002). In the United States the experiences of white women entrepreneurs reveals that problems with balancing work

and home obligations appeared most often among women with children and women without children, both straight and lesbian, typically reported a shared balance of home responsibilities with their partners (Gill and Ganesh, 2007). Also, examining the participation of women as entrepreneurs in SMEs in Asian developing countries, Tambunan (2009), opined that when women are better educated and better paid employment opportunities increase for women, the participation of women as entrepreneurs in SMEs may decline. In another study on developing countries, Panda and Dash (2014) revealed that financial constraints and constraints due to the business, economic and political environment emerged as major obstacles from an entrepreneur's perspective. While infrastructural constraints emerge as a vital constraint from the policy maker's perspective.

In Pakistan, most MBA graduating students actually plan to launch their own business, but unfriendly policies of the government and country's business environment refrain them from entering into the entrepreneurial field (Hasnu and Aslam, 2016). Similarly in Ethiopia, unfavourable government policies like limited access to finance, limited access to information and infrastructure and lack of social support were the major constraints of youth entrepreneurs (Ahmed and Ahmed, 2021).

In India, new entrepreneurs who do not belong to traditional business communities have begun to emerge in large numbers. However, researchers like Nayar and Kiran (2012) argued that despite the presence of certain business communities, the culture of India continues to remain risk averse and the tag of a big company continues to be the middle class aspiration. In a similar study, Goel and Farooque (2014) pointed out that an unstructured business environment and a high level

of bureaucracy often discourage potential entrepreneurs from taking risks and building innovative enterprises in India.

On women entrepreneurs in India, the major problems faced are family obligations, gender inequality, problem of finance and low-level risk taking attitude (Siddiqui, 2012). Limited access to key resources like land and credit, legal and socio-cultural environment also act as serious impediments for women entrepreneurs in India (Malyadri, 2014).

At the state level, Jamir and Natarajan (2014) had identified that for the traditional sector entrepreneurs, lack of information to access markets including exports, lack of adequate trained workers and obsolete technology are some of the major barriers to the growth of traditional small sector industries in Nagaland. In a similar study conducted by Sinha (2017), has revealed that entrepreneurship in Nagaland is very promising but faces problems like capital inadequacy, lack of experience and lack of publicities. For women entrepreneurship in Nagaland, requiring the approval of the head of the family puts a break in the growth of women enterprises (Goowalla and Kumar, 2016).

From the above review, it is noticed that most of the studies have been conducted on national level and less number of studies is on state or local levels. Further, the researchers found that little attention has been devoted to the problems and challenges faced by local entrepreneurs. The central issue addressed in this study is thus, local specific to match the context of Nagaland state.

Area of Study

Dimapur being the gateway of Nagaland has made it into a business hub with people coming from all over the country mainly for business purposes. For the in-depth and

comprehensive coverage of the study area, the study has selected seven main market areas under Dimapur municipal where local entrepreneurs are mostly concentrated, namely: supermarket, Midland, Oriental Colony, Duncan Bosti, Church Road, DC Court and Signal Angami area.

Objectives

1. To understand the causes of rapidly rising local entrepreneurs in Dimapur.
2. To look into the problems and challenges faced by local (Naga) entrepreneurs in Dimapur.
3. To identify the thrust areas in which local entrepreneurs feel the most to make improvements to compete with non-local businessmen.

Hypothesis

- H1. Lack of government jobs has been the major cause of rising local entrepreneurship in Nagaland.
- H2. The main hindrance for the growth of business in Dimapur is multiple taxation.
- H3. The problems and challenges faced by both male and female entrepreneurs in Dimapur is the same.

Data and Methodology

The study had used both primary and secondary data. Primary data are collected through interviews and questionnaires. The sample size consisted of 70 entrepreneurs, 10 from each market area which includes small to large business enterprises. Secondary sources include referred journals, books, newspapers and various other publications of the Government of India and Government of Nagaland and official record of

trade licenses issued and renewed to local entrepreneurs by the Dimapur Municipal Council (DMC) over the past few years. Tables, averages and percentages are the tools used for the present study.

Results and Discussions

In order to assure the rising local entrepreneurs in Dimapur, data on trade licenses issued and renewed to local entrepreneurs had been collected from the Dimapur Municipal Council (DMC) for the year 2015-2021. Accordingly, it is found that the trade license issued to the local people has been continuously increasing as shown in Table-1.

Table 1: Trade Licences Issued by DMC to Local Entrepreneurs

Year	No. of License Issued	% Change
2015	3500	-
2016	2885	-17.57
2017	3656	+26.72
2018	4235	+15.84
2019	5130	+21.13
2020	2364	-53.91
2021	3563	+50.72

Source: Dimapur Municipal Council (DMC) 2021

Though there are many cases where a trade license is issued in the name of local people but the actual business is run and manned by non-local people, general observation and physical verification also shows an increasing number of local people engaging in entrepreneurial activities in Dimapur. Over the years, the number of local entrepreneurs have steadily increased from the year 2016 onwards but a drastic reduction by 54% in 2020 was due to pandemic and lockdowns which has adversely affected the business activities. However, by 2021 the number has increased by more than 50% than the previous year, though still lesser than the pre-pandemic and

pre-lockdown periods in absolute terms. With the pandemic situation gradually coming to normalcy the number of local entrepreneurs is expected to increase in the coming years.

Profile of Local Entrepreneurs in Dimapur

The study reveals a significant fact that more women are taking up entrepreneurial activities in Dimapur. It is revealed that the majority of the local entrepreneurs in Dimapur are female i.e., about 60 per cent as compared to male which is 40 per cent (Table 2.1).

Table 2.1: Gender Profile of Local Entrepreneurs in Dimapur

Gender	Frequency	Percentage
Male	28	40
Female	42	60
Total	70	100

Source: Field Survey, 2020

Table 2.2: Age and Educational Level of Local Entrepreneurs in Dimapur

Age and Edu.		Male		Female		Total	
		Frequency	%	Frequency	%	Frequency	%
Age	18 – 25	2	7.14	3	7.14	5	7.14
	26 – 35	11	39.29	5	11.91	16	22.86
	36 – 45	8	28.57	15	35.71	23	32.86
	Above 45	7	25	19	45.24	26	37.14
	Total	28	100	42	100	70	100
Edu	Illiterate	0	0	0	0	0	0
	Under Matric	3	10.72	11	26.19	14	20
	Matriculate	4	14.28	15	37.71	19	27.14
	Graduate	12	42.86	10	23.82	22	31.43
	Post Graduate	6	21.43	3	7.14	9	12.86
	Other Tech. Skills	3	10.72	3	7.14	6	8.57
	Total	28	100	42	100	70	100

Source: Field Survey, 2020

It is found that the largest age group of male entrepreneurs fall in between 26-35 years followed by the age group 36-45 years (Table 2.2), whereas the largest age group of female entrepreneurs is above 45 years followed by the age group 36-45 years. Majority of the male entrepreneurs falling in between the age group 25-45 years depicts that local entrepreneurship in Dimapur has started late. On the other hand, the majority of female entrepreneurs found above 36 years of age are due to the fact that most of the women take up entrepreneurial activities after reaching a certain level of reduced family responsibilities.

The largest number of local entrepreneurs is a graduate (combined 31.43%) followed by matriculate (combined 27.14%) and there is no illiterate local entrepreneur.

Sources of Fund

The study reveals that the largest source of funds comes from own savings, 51.43 % of male entrepreneurs and 46.87 % of female entrepreneurs combining 49.15% (Table 3). Assistance from the bank comes in second position at combined 30.52 % followed by borrowing from others and sale of landed property at combined 11.86% and 8.47 % respectively.

Table 3: Sources of Fund (in percentage)

Source	Male	Female	Total
Own saving	51.43	46.87	49.15
Bank loan	22.39	38.65	30.52
Borrowed from others	15.45	8.27	11.86
Sale of landed property	10.73	6.21	8.47
Total	100	100	100

Source: Field Survey, 2020

Factors Responsible for Rise in Local Entrepreneurship in Dimapur

There are many factors responsible for the rise in entrepreneurial ventures by the Naga people. Out of the several factors analysed, the study reveals that ‘Self-dependent’ is the major reason behind rise in local entrepreneurship in Dimapur (Table 4).

Table 4: Factors Responsible for Rise in Local Entrepreneurship in Dimapur (in percentages)

Sl. No.	Factors	Male	Female	Total
1	Lack of educational qualifications	7.14	12.90	10.02
2	Lack of job opportunities	17.86	9.68	13.76
3	Due to migration	25	9.68	17.34
4	Rise of business consciousness	10.42	16.13	13.43
5	Self-dependent	28.57	25.40	27.19
6	Lack of government jobs	7.14	9.68	8.41
7	Economic reason (as a source of livelihood)	3.57	16.13	9.85
8	Any other/s	0.30	0.40	0.35
	Total	100	100	100

Source: Field Survey, 2020

According to the study, factors responsible for the rise in local entrepreneurship in Dimapur can be ranked as follows: (i) Self-dependent (ii) Migration (iii) Lack of job opportunities (iv) Rise of business consciousness (v) Lack of educational qualifications (vi) Economic reasons (vii) Lack of government jobs (viii) Others (Table 4).

Analyzing the various factors responsible for the rise in local entrepreneurship and ranking the 8 (eight) factors, it is observed that the factor of lack of government jobs, comes in seventh position. Hence, our first hypothesis, i.e., ‘Lack of government jobs has been the major cause of rising local entrepreneurship in Nagaland’, is proven to be wrong.

Nature of Business

The study reveals that businesses involving food items (including bakery, grocery, restaurants) and garments (all types of clothing) are the most common types of business with 32.20% and 25.42% comprising both male and female entrepreneurs (Table 5).

Table 5: Nature of Businesses Owned by Local Entrepreneurs in Dimapur (in percentages)

Types	Male	Female	Combined
Garments	12.17	38.67	25.42
Food items	39.95	24.45	32.20
Mechanics	8.57	2.37	5.47
Hardware	13.38	3.56	8.47
Electronics	8.78	4.78	6.78
Skill related services	4.18	12.76	8.47
Press & media services	1.1	8.34	4.72
Others	11.87	5.07	8.47
Total	100	100	100

Source: Field Survey, 2021

The study also reveals that more female entrepreneurs are engaged in garments whereas more male entrepreneurs are engaged in food items (Table 5).

Problems of Local Entrepreneurs in Dimapur

The study reveals contrasting results on the effects of various identified problems on male and female entrepreneurs as reflected in table 6.

Multiple taxations

Imposition and collection of multiple taxations on the business community in Nagaland in the form of both legal and illegal taxes has been one of the greatest problems plaguing the economy of the state. Refusing to comply with such illegal

tax imposition will not only risk the fate of business enterprise but even the very lives of the owners. In such a situation, many business owners were even hesitant to disclose that they are severely affected by such impositions. However, a high majority (54%) of male entrepreneurs revealed that multiple taxations are the greatest problems of business in Dimapur (Table 6). The data shows that 20% of female entrepreneurs and a combined 37% opined that multiple taxations is the greatest problem hampering their business in terms of profitability and growth (Table 6).

Poor roads and transportation

Road conditions and transportation facilities in and around the plains of Dimapur may not represent the actual condition of roads and transportation in Nagaland. As such, a much lower percentage, i.e. 11% only of local entrepreneurs in Dimapur feels that road conditions and transportation pose a serious business problem (Table 6).

Table 6: Gender wise Comparative Effects of Business Problems in Dimapur (in percentages)

Variables	Male	Female	Total
Multiple taxation	54	20	37
Lack of transportation	13	9	11
Lack of finance	27	45	36
Lack of business training	6	26	16
Total	100	100	100

Source: Field Survey, 2020

Lack of Finance

Lack of developed financial markets and institutions poses a severe obstacle for the business to grow in Nagaland. As such, our study reveals that a comparatively higher percentage, i.e., nearly half of the female entrepreneurs (45%) in Dimapur considers lack of finance as a serious and grave problem for

their business. On the contrary, a much lower percentage of male entrepreneurs (27%) consider lack of finance as a serious and grave problem for their business (Table 6).

Lack of business training

Business training gives a greater understanding of the responsibility and builds confidence, increased productivity and encourages creativity and innovation. However, the study reveals that a very low percentage (6%) of male entrepreneurs consider lack of business training as a serious and grave problem for their business, On the other hand, a reasonably high percentage (26%) of female entrepreneurs take lack of business training as a serious problem hampering their business growth (Table 6). Comparatively more female entrepreneurs feeling the need for business training is an indication of development of strong entrepreneurial spirit amongst women having growth potentials.

On ranking the 4 (four) identified variables and analysis, the problem of multiple taxation comes in the first rank. Hence, the second hypothesis, i.e., ‘The main hindrance for the growth of business in Dimapur is multiple taxation’, is proven to be correct.

Challenges of Local Entrepreneurs in Dimapur

The study reveals the following challenges faced by the local entrepreneurs in Dimapur (Table 7).

Anti-entrepreneurial attitude

Though there has been a change in attitude on local entrepreneurship in Nagaland in recent years, there is a long way to go. The data reveals that for male entrepreneurs (32%), the anti-entrepreneurial attitude of the people still

Table 7: Gender wise Comparative Effects of Business Challenges in Dimapur (in percentages)

Variables	Male	Female	Total
Anti-entrepreneurial attitude	32	10	21
Hiring employees	42	48	45
Marketing strategy	8	15	11.5
Lack of family support	18	27	22.5
Total	100	100	100

Source: Field Survey, 2020

stands as the second most challenging obstacle they feel they have to overcome. There is a contrasting result in the case of female entrepreneurs as the least percentage (only 10%) of female entrepreneurs consider anti-entrepreneurial attitude of the people as the challenging obstacle for their business. The success of entrepreneurs and the examples they set are probably the best way to create a drastic change in the attitude of people towards local entrepreneurship.

Employees

Despite high unemployment in Nagaland, many entrepreneurs struggle to find the right talent with the right skills for their business. The study reveals that for 42% male and 48% female entrepreneurs, finding the right staff is the most difficult challenge for their business (Table 7).

Marketing Strategy

The data reveals that only 8% of male entrepreneurs consider framing marketing strategy a difficult challenge. Comparatively, for a much higher percentage, 15% of female entrepreneurs consider the challenge of facing the unknown best way to market their products and services as a difficult challenge (Table 7). The combined lowest 11.5% only of local entrepreneurs considering the function of marketing a difficult

challenge could be due to ignorance of business's game plan or traditional ideas are still quite dominant. It could also be due to the fact that they ignore marketing strategies entirely and hope that word of mouth will be sufficient to run their business.

Lack of family support

Family is the best supporting system for anyone, and it is more so for the business owners. Since the majority (55.72%) of the local entrepreneurs fall in the age group between 25-45 years (Table 2.2) it is pertinent to assess the strength of family support in entrepreneurial ventures. Convincing family to opt for business over government job is still not an easy task for any Naga youth. On this count, the study reveals a very encouraging result in the case of male entrepreneurs because family support is somehow strong for male entrepreneurs as hardly 18% of them consider lack of family support as a challenge. However, for female entrepreneurs family support is not strong because 27% of them still consider lack of family support as a challenge. The overall result however, reveals that family support poses the second greatest challenge for the local entrepreneurs next to hiring employees (Table 7). The result shows that there is still a never-ending family pressure for job security through traditional means or there are still some myths like not being able to find a good matrimonial alliance if one doesn't hold a government job.

From the above findings, it is clear that except the challenge factor – 'hiring employees' in which the study reveals more or less the same result for both male and female local entrepreneurs, all other factors analyses give contrasting results. Hence, the Third hypothesis – 'The problems and challenges faced by both male and female entrepreneurs in Dimapur are the same' has been proven wrong.

Competition with Non-Locals

Assessing the thrust areas in which local entrepreneurs feel they need to make improvements to compete with non-local businessmen, the study have obtained varied results from male and female local entrepreneurs (Table 8).

Table 8: Gender wise Comparative Thrust Areas to Compete with Non-Locals in Dimapur (in percentages)

Areas	Male	Female	Total
1. Bringing innovative ideas	13.74	9.98	11.86
2. Patience and determination	4.56	22.56	13.56
3. Improve salesmanship	29.76	14.32	22.04
4. Better quality of products	20.47	13.43	16.95
5. Basic money management	14.34	26.34	20.34
6. Punctuality	13.56	6.78	10.17
7. Self-motivation/ Discipline	3.57	6.59	5.08
Total	100	100	100

Source: Field Survey, 2020

For the male entrepreneurs, the first three thrust areas where they feel need improvement are: salesmanship, produce or procure better quality products and money management. On the other hand, for the female entrepreneurs, the first three thrust areas are: money management, patience and determination and salesmanship (Table 8). It is thus found that the two most pressing areas where local entrepreneurs need to make improvements in their business pursuit are salesmanship and basic money management.

Conclusion

The study reveals that while there is a continuous rise in local entrepreneurship in Dimapur, which got affected due to pandemic and lockdown for the last two years, female entrepreneurs are more than male entrepreneurs. The study also shows that the majority of the local entrepreneurs fall in the

age group 25-45 and nearly half of the local entrepreneurs are graduates and above. The most common types of businesses involved are food items and garments. The data also reveals that more female entrepreneurs are engaged in garments whereas more male entrepreneurs are engaged in food items.

On the analysis of factors responsible for the rise of local entrepreneurship, the study have obtained mixed results in concurrence with the given hypothesis. Among the given variables of business problems the analysis shows that multiple taxations have the most adverse effects on local entrepreneurship. In the analysis of the variables of challenges of business, the study reveals that hiring employees is the most difficult challenge for both male and female entrepreneurs. To compete with non-local businessmen, the study found that the two most pressing areas are improvement in salesmanship and basic money management.

Suggestions

From the above findings the following are suggested to address the problems and challenges of entrepreneurs in Nagaland:

- The menace of multiple taxations plaguing the growth of business should be tackled firmly with supportive legislation and create an enabling environment for the business community as it does not only affect the businesses but it also equally affects the consumers.
- Organize competitive Fairs and Melas at regular intervals to stimulate young people's creativity and showcase their innovative business ideas.
- Authorities should give priority to the development of professional financial markets and institutions to provide adequate financial assistance and support for the growth of business in the state.

- Professional training on business management should be organized at regular intervals outsourcing resource persons from outside the state.
- Imparting entrepreneurship education at secondary and college level is the need of the hour in the state.
- There should be an upgrade in the road conditions and transport facilities as it will make a remarkable difference in easing the plight of the business community in the state.

Limitations and Need for further Research

Dealing with fast changing environment such as Dimapur, the commercial capital of Nagaland, the present study suffers from the following limitations which entail further research:

- The market areas covered are limited to 7 (seven) main market areas only and the sample size drawn at random from each area is limited to 10 (ten) making the total sample size of 70 only. The result obtained from covering more market areas and larger sample size will better represent the situation.
- The variables under business problems and challenges analysed were limited to 4 (four) each respectively. Also, the analysed factors responsible for the rise of local entrepreneurship and the thrust areas of competition with non-locals were limited to 7 (seven) each respectively. Analysis of more and other contextual variables and factors will give a better picture of the actual condition confronting the local entrepreneurs in Nagaland.
- Studies also need to be conducted on how the rapidly increasing online business is affecting the local entrepreneurs in Nagaland.
- A comprehensive research on the quantum of losses suffered by the business community due to pandemic and lockdown is also of paramount importance at hand.

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A Study on Agricultural Production and Productivity in Wokha District of Nagaland

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Abstract

Agriculture sector still plays a dominant role in food security and economic development of a country. Growth and development of agriculture and allied sector directly and indirectly affects the welfare of a society and rural prosperity. The practice of agriculture also forms an important resource base for a number of agro-based industries and agro-services that led to the

development of towns and cities. Human populations that exist today could not have evolved without the practice of agriculture. Wokha district is known as "Land of Plenty" for its richness in mineral, resources, fertile land and favorable climatic condition. More than 80 percent of the people depend on agriculture for their livelihood. Rice is the major food crop and occupies around 68 percent of the total cultivable area. The paper discusses the progress of agriculture sector with a view to ascertain the trend in area, production, yield of principal crops and major vegetables, and changes in cropping pattern of Wokha district in the state of Nagaland.

Keywords: Agricultural progress, principal crops, major vegetables, area, production and yield, Wokha.

Introduction

Agriculture and allied sector continues to play a dominant role in the food security and economic development of a country. The practice of agriculture enabled people to establish permanent settlements and expand urban based societies. Domestication of plants and animals transformed the profession of the early humans from hunting and gathering to selective hunting, herding and settled agriculture. Human populations that exist today could not have evolved without the practice of agriculture (Gupta, 2004). Growth and development of agriculture and allied sector also directly and indirectly affects the well-being of a society and rural prosperity.

Wokha district in the state of Nagaland is the homeland of the Lotha (Nagas) with an area of 1628 sq.km. It accounts around 9.82 percent of the total geographical area of the state with a population of 1,66,343 (2011 census). The district is situated in the mid western part of Nagaland State, adjacent to Golaghat and Jorhat districts of plain in State of Assam. It is bounded by Mokokchung district in the North, Kohima district in the South, Zunheboto district in the East and the State of the Assam in the West. The topography of the district is hilly, more or less similar with that of other districts in the state. The district is divided into three broad mountain ranges- Wokha Range or Upper Range, Sanis Range or Middle Range, and Bhandari Range or Lower Range. The climate is warm

in the lower plain areas, moderately warm in the middle and upper region during summer, and cold in winter. The annual rainfall varies from 200 cms to 250 cms and the type of soil is mostly comprised of alluvial soil. The district is known as “Land of Plenty” for its richness in mineral, resources, fertile land and favorable climatic condition.

Objective of the Study

The study was conducted with the following objectives:

1. To study the problems and prospects of agriculture sector in the district.
2. To analyze the trends in area, production and productivity of principal crops in the district.

Data source and Methodology

The study was conducted under Wokha district of the state of Nagaland. For primary data, altogether 150 farmers were surveyed from 25 villages randomly. The information so was collected with the help of schedule questionnaire, informal interview and discussions with the cultivators and officials of the department of agriculture. Secondary data were collected from published reports of the Department of Agriculture Government of Nagaland, Statistical Handbooks of Nagaland, Nagaland Basic Facts, NEDFi Databank and Journals. Statistical tools such as percentages and pie chart were used to draw meaningful results. For the estimation for area, production and productivity of principle crops, compound growth rates have been used by fitting a semi logarithmic trend function of the form:

$$Y = e^{a+bt}$$

Where, Y = Area/Production/Productivity

a = Constant

b = Growth Rate
t = Time

Analysis and Discussion

Agriculture and allied activities are the principal means of occupation and livelihood residing in rural areas with more than 80 percent of the people depending on agricultural sector. Rice is the major food crop and occupies 68 percent of the total cultivable area. The total cropped area in the district in 2018-19 was 48828 ha, net sown area of 31,765 ha and area sown more than once of 17063 ha with a cropping intensity of 130 per cent (NEDFi Data Bank, 2020). Major crops such as rice, maize, millet, wheat, nagadal and beans are grown during Kharif season, and groundnut, rapeseed, sugarcane, cotton, pea, rajmash (Kholar), jute are grown during Rabi season. Horticultural crops grown in the district includes pineapple, orange, ginger, mossambi, banana, guava, potato, yam, plum, cucumber, passion fruit and jack fruit are abundant and commercially cultivated. Farmers in the district still follows traditional method of cultivation- spade, hoe and small agriculture implements as the topography of the district is mostly hilly terrain. Adoption of machineries such as tractors, power tillers, bullocks or buffalo drawn plough are seen in the lower range of the district- plains of Merapani, Doyang valley and Baghty valley for wet rice cultivation. The cropping pattern in the district is similar to that of the state with cultivation of food grains occupying the major portion of the total cropped area. As shown from the table (1.1), more than 75 percent of the total cropped area is devoted to the cultivation of food grains throughout the period. Rice being the staple food of the district, the cultivation of cereals (Jhum and TRC/WRC) occupies the largest share with almost 68 percent of the total cropped area. The area under oilseeds cultivation to total cropped area has

been steadily declining over the years from 15.76 percent in 2010-11 to 14.49 percent in 2019-20. This is due to the gradual increase in area under commercial crops cultivation from 6.67 percent to 9.93 percent in 2019-20.

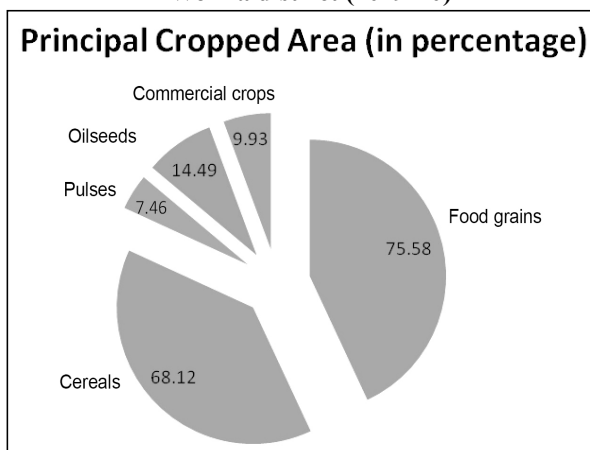
Table 1.1: Cropping pattern in Wokha District (2010-11 to 2019-20)

Year	Principal crops				
	Cereal	Pulses	Foodgrains	Oilseeds	Commercial crops
2010-11	70.26	7.31	77.57	15.76	6.67
2011-12	68.80	7.67	76.47	16.21	7.17
2012-13	68.11	7.33	75.44	16.06	8.50
2013-14	68.97	7.41	76.38	15.93	7.69
2014-15	68.66	7.29	75.95	15.58	8.47
2015-16	68.78	7.30	76.08	15.44	8.49
2016-17	69.08	7.40	76.48	15.06	8.46
2017-18	69.10	7.59	76.69	14.92	8.39
2018-19	68.25	7.48	75.73	14.56	9.71
2019-20	68.12	7.46	75.58	14.49	9.93

Source: Computed based on data collected from Statistical Handbooks of Nagaland

The following pie chart shows the area under principal crop to total cropped area in the year 2019-20.

Figure 1.1: Area under principal crops to total cropped area under Wokha district (2019-20)



Source: Table 1.1

In the year 2019-20, the total area under cereal, pulses, oilseeds and commercial crops cultivation in the district was 28040 ha, 3069 ha, 5965 ha and 4087 ha respectively. The percentage area under food grain to total cropped area was 75.58 percent of which area under cereal cultivation accounts to 68.12 percent in 2019-20. The area under the cultivation of oilseeds (14.49 percent) occupied the second largest followed by commercial crops cultivation (9.93 percent) and pulses (7.46 percent).

Trend in Area, Production and Productivity

The area under principal crops cultivation has witnessed an increasing trend over the last 10 (ten) years in the state as well as in Wokha district. The total area under the cultivation of principal crop in the district has increased from 36110 ha in 2010-11 to 41161 ha in 2019-20 with a CAGR of 1.32 percent. The area under food grain cultivation in the district was 28010 ha in 2010-11 which has increased to 31109 ha in 2019-20 with a Compound Annual Growth Rate (CAGR) of 1.05 percent. Similarly, the area under non-food grain has also showed an upward trend from 8100 ha to 10052 ha with an annual growth rate of 2.18 percent which is higher than the state growth rate of 1.70 percent during the same period. Production of principal crops in the district has also increased from 94200 mt to 118965 mt with an annual compound growth rate of 2.36 percent. The production of food grain increased from 52090 mt to 66918 mt during the same period with CAGR of 2.54 percent and production of non-food grains has also shown an upward trend with an annual compound growth rate of 2.14 percent. However, the productivity rate of principal crops in the state as well as the district has experienced a negative growth rate. The compound annual productivity growth rate of principal crops in the state during the period was -1.25 percent and the

district was -2.19 percent. The decline in the productivity rate of principal crops was mainly due to the decline in the annual growth productivity growth rate of commercial crops in both the state (-1.25 percent) as well as the district (-2.19 percent). Therefore, there is a need to improve productivity rate by taking up measure such as adoption of modern technology, pest control, improved seeds and fertilizers, scientific rotation of crops according to agro climatic conditions.

Table 1.2 Area, Production and Productivity of Principal Crops of Nagaland and Wokha district for the past 10 (Ten) years

(A= Area in Hectare, P= Production in metric tonnes (mt), Y= Yield, Kg per hectare)

Principal Crops	Factors	Nagaland			Wokha		
		2010-11	2019-20	*CAGR	2010-11	2019-20	*CAGR
Cereal	A	264400	301970	1.34	25370	28040	1.01
	P	531860	702090	2.82	49440	63418	2.52
	Y	2012	2325	1.49	1949	2262	1.49
Pulses	A	34430	40310	1.59	2640	3069	1.52
	P	36460	46780	2.52	2650	3500	2.82
	Y	1059	1161	0.91	1004	1140	1.32
Food Grain (A)	A	298830	342280	1.37	28010	31109	1.05
	P	568320	748870	2.80	52090	66918	2.54
	Y	1902	2188	1.43	1860	2151	1.46
Oil seeds	A	65840	68950	0.46	5690	5965	0.47
	P	67530	71300	0.54	5470	5827	0.63
	Y	1026	1034	0.08	961	977	0.21
Commercial crops	A	29400	43756	4.06	2410	4087	5.42
	P	392170	486674	2.18	36640	46220	2.35
	Y	13339	11123	-1.80	15203	11309	-2.91
Non- food grains (B)	A	95240	112706	1.70	8100	10052	2.18
	P	459700	557974	1.96	42110	52047	2.14
	Y	14365	12157	-1.66	16164	12286	-2.71
Principal crops (A + B)	A	394070	1091150	10.72	36110	41161	1.32
	P	1028020	1306844	2.43	94200	118965	2.36
	Y	16267	14345	-1.25	18024	14437	-2.19

*CAGR= Compound Annual Growth Rate

Source: Computed based on data collected from Statistical Handbooks of Nagaland

Major findings of the study

1. The primary system of cultivation in the district is jhum method of cultivation with 95 percent of the respondent practicing traditional method of cultivation and only 24 percent of the respondents attended training relating to the practice of agriculture.
2. The study shows that women in the age group of fifty or more occupies a dominant role (65 percent) in agricultural activities with predominance of marginal and small farmers (below 2 hectares).
3. It is also found that mono-cropping of paddy is widely practiced with limited use of High Yielding Variety Seeds (HYVS), fertilizers and pesticides in the field.
4. It is also observed that agriculture production in the district is not demand oriented. Farmers produce on a small scale and the surplus being sold directly to the consumers in the village roads and on the state highways.
5. It is also found that the number of participation of youth in agricultural activities in the district is very low (35 percent). A vast range of scopes exist in this sector which await exploration by youth as they have the desired innovativeness and creativity needed for reshaping agriculture (Sukanya Som *et al.*, 2018).
6. The study also found that there is a lack of organised market and regulated marketing system for marketing the agricultural products.
7. The study revealed that lack of finance, absence of cold storage and processing facilities, problem of transportation, post harvest losses are the common problems of the farmers in the district.

8. Majority of the respondents (65 percent) in the study area appeared to be unaware of agriculture credit facilities and depends on indigenous money lenders or financed by themselves.

Conclusion

Agriculture in the district is mainly rain fed and organic by default. Due to the topography of the district which is mostly hilly, Jhum system of cultivation is widely practised with limited use of fertilizer and also the scope of farm mechanisation is limited. The practise of Wet Terrace Cultivation are mostly found in the lower range of the district, in the plains of Baghty and plains of Merapani. The area, production and yield of agriculture sector in the Wokha district have shown an increasing trend over the years even though at a slow pace. The area under the production of principal crops has increased from 36110 ha in 2010-11 to 41161 ha in 2019-20, registering an increased rate of 12.27 percent. The production of principal crops has also increased from 94200 mt to 118965 mt, a percentage increase of 20.82 percent over the period. Agriculture in the district is characterized by predominance of small farmers, hilly terrains, traditional method of cultivation, non-application of HYV seeds, limited use of fertilizers and pesticides which results in the low production and productivity of crops. There are also various problems in the marketing of agriculture produces in the district. Non-existence of agro-based units, absence of organized and regulated marketing facility, lack of storing facility in the villages and lack of finance makes it difficult for the farmers to dispose their produce as most of the agricultural produce are non-durable. Thus, co-operative farming and contract farming are to be encouraged in the district as it will not only bring the farmers under an umbrella but also will encourage

large scale cultivation and also strengthens them to make effective agricultural marketing. On the basis of availability of raw material, labor and other support mechanism there is a scope for agro-based industries – potato and banana chips processing units, juices (orange, plum, pineapple, and passion fruits) and packing units, food processing units etc. There is also an urgent need for awareness and delivery of credit and other assistance to the right person at the right time for the development of agriculture in the district. In order to bring fruits of labor to the farmers, the overall environment prevailing in the agriculture sector in the district needs to be improved.

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Performance Analysis of Mutual Fund: A Comparative Study of Mid Cap Fund

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Abstract

Markets are being divided into two components i.e., Primary market and Secondary market. The secondary market is also known as capital market. Capital market contains of numerous investment avenues like Stocks, Debentures, Bonds, Mutual Fund, and many others. Mutual fund is also one of the important instruments of the capital market because the investor's gets appreciation of their budget invested and additionally diversify risk. It also offers the possibility to the retail investor to put money into securities and capital market device.

This paper aims at comparing Indian mutual fund with the mid cap category in terms of risk- return relationship. The paper will also attempt to examine monetary overall performance of selected mutual fund schemes through the statistical tools such as alpha, beta, standard deviation, and Sharpe ratio. The findings of this research paper can be beneficial to buyers, AMC fund houses, financial advisor and so on, for future investment.

Keywords: Mutual fund, capital market, sharpe ratio, mid cap fund.

Introduction

Mutual fund can be said as one of the instrument of Capital Market in which an investor can get wealth appreciation and good return from the invested amount as well. The Mutual fund gives the advantage of fund diversification on the invested amount, so that the risk gets diversified and investor can be free of some risk avenues. In simple words, Mutual Fund is one of the medium by which a retail investor can enter into capital market through small amount of investment from their savings and can get a good return as well as wealth maximisation.

One of the scheme characteristics of Mid cap fund, according to Securities Exchange Board of India (SEBI) mentioned about minimum investment in equity and equity related instruments with 65% of total assets. Another growth fund category of Mid cap fund is imparting appreciation in the fund or capital invested through the traders. It is stated to be as growth finances. The growth charge variety goals at appreciation of the capital in choice to regular profits on the rate range invested via the investor but, increase fund involves better threat than income rate range.

Meaning of Mid Cap Fund- “Mid-cap fund can be said as the fund in which the minimum investment of equity and equity related instruments is 65% of total assets by mid-cap companies.”

Asset Management Company (AMC)

One of the organisation that manages the fund houses is the Asset Management Company (AMC). It really manages the price range of the various schemes. The AMC employs

a big wide variety of specialists (Fund Manager) to make investments, carry out research and to do agent and investor servicing. In fact, the fulfilment of any mutual fund relies upon the performance of this AMC. The AMC submits a quarterly document on the functioning of the mutual fund to the trustees who will guide and manage the AMC.

Statement of the problem

Any investor who wants to invest in mutual fund needs to know about the market trend and every investor is not aware about the various tools by which they can get the update about the market. For that reason, it becomes very important for the researcher to work on the performance of mutual fund. So that a layman investor gets idea about various risk- return and their relationship.

SEBI has classified various funds according to their characteristics. Therefore, in this paper the researcher made an attempt to analyse the performance with simple manner with the statistical tools. The main aim of this paper is that any layman investor who has desire to start investing in capital market can read the paper and can get some knowledge of the mutual fund.

This paper emerges with the need to study the performance of Indian Mutual Fund companies with their NAV and benchmark return with risk and return relationship of selected three companies i.e., ICICI, SBI & HDFC with the category of Mid cap funds.

Objectives of the study

The objectives are as follows:

1. To analyse the performance of mid cap fund of selected Indian companies in terms of risk-return relationship.

2. To compare the performance of Indian mutual fund of mid cap funds of selected Indian companies on the basis of benchmark Index.

Hypothesis of the study

The working hypothesis of the study is followed by:

There is no significant difference between the return and Benchmark index of Mid-cap equity fund.

Research methodology

Secondary data is taken as a basis of analysis in this research paper like online factsheet data, online journals and online material. The samples are selected on a random sampling method. The sample for the research paper includes only three AMC Fund houses according to 1st quarter report ICICI, SBI and HDFC. Three equity diversified mutual fund schemes are chosen for the study for their comparison on the same mid cap category. The most popular and widely tracked Nifty benchmark for midcap category is used as a proxy for the market collected from the website www.nifty.com. The reference period is financial year for the data is taken from 2018-2020. Yearly fixed deposit rate of SBI is taken as risk free rate of return. The data for the study is taken from the factsheet been published journal of the fund houses. Microsoft Excel is used for all the calculations.

Statistical Tools

Alpha: Alpha is the extra return of any portfolio an investor past the restriction of its benchmark index considering the risk involved in it. It is a statistical device for calculating the actual gain minus the only predicted via the beta value of the fund. The method used for the calculation of alpha is:

Alpha = INTERCEPT (Average return of Portfolio, Average return of benchmark index)

Beta: Beta denotes the sensitiveness of the portfolio toward the market motion. it is a statistical device through which we can predict the fund overall performance in correlation with its index. The system used for the calculation of beta is:

Beta = SLOPE (Average return of Portfolio, Average return of benchmark index)

Standard deviation: Standard Deviation is a financial parameter device which allows us to expect the fund overall performance in correlation with its mean. The method used for the calculation of popular deviation is:

S.D. = STDEV.P (Average return of the portfolio)

Sharpe ratio: Sharpe ratio is the ratio that's used to measure the performance of a portfolio with the evaluation to a chance loose charge, after taking into the chance component. The formula used for the calculation of Sharpe ratio is:

Sharpe ratio = (Average Return of Fund – Returns of Risk Free Rate)/Standard Deviation.

Results and analysis

1. Comparative Statement of NAV and Total Return for the Selected Mutual Fund Schemes

The table below explains about the comparative NAV (Net Asset value) for the selected mutual funds schemes. Firstly, for the year 2018 NAV (Rs) & TOTAL RETURN (%) for selected schemes (ICICI Prudential Midcap Fund 46.09 & 8.01%, SBI Magnum Midcap Fund 19.11 & 14.16%, HDFC Midcap opportunities fund 34.78 & 0.57%) which shows that all the funds has positive growth rate in the year 2018 and SBI

has highest growth rate than ICICI and HDFC. Secondly, in 2019 NAV (Rs) & TOTAL RETURN (%) for selected schemes (ICICI Prudential Midcap Fund 49.32 & 7%, SBI Magnum Midcap Fund 21.18 & 10.83%, HDFC Midcap opportunities fund 32.69 & -6.01%) which shows that ICICI & SBI has a positive growth rate in 2019 but HDFC has negative rate which indicates that the fund has underperformed. Thirdly, in 2020 NAV (Rs) & TOTAL RETURN (%) for selected schemes (ICICI Prudential Midcap Fund 50.34 & 2.07 %, SBI Magnum Midcap Fund 22.31 & 5.34%, HDFC Midcap opportunities fund 30.93 & -5.39%) which shows that ICICI & SBI has performed well in 2020 consecutively but HDFC has underperformed for continuously two year which is quite dissatisfactory for the investor.

Table (I) Comparative Statement of NAV and Total Return for the Selected Mutual Fund Schemes

Scheme name	NAV 2018 (rs)	Total return for 2018 (%)	NAV 2019 (rs)	Total return for 2019 (%)	NAV 2020 (rs)	Total return for 2020 (%)
ICICI Prudential mid-cap fund	46.09	8.01	49.32	7	50.34	2.07
SBI Magnum mid-cap fund	19.11	14.16	21.18	10.83	22.31	5.34
HDFC mid-cap opportunities fund	34.78	0.57	32.69	-6.01	30.93	-5.39

Source: Data Compiled from Bulletin

2. Performance Analysis Based On Statistic Parameters

Table (II) reveals about the statistical parameters which is used to analyse the performance of the selected mutual fund scheme:

- ICICI Prudential Midcap Fund - it has beta value of fund 0.07 and alpha value of fund -1.73 the fund has less volatile to its benchmark indices and the poor price of alpha implies

that it's been below preformed to the market movements wherein else it has an general deviation of fund is 2.60 it indicates that the funds is more strong or much less sensitive than the index and provide common return to the investors.

- SBI Magnum Midcap Fund - it has beta value of fund 0.19 and alpha value of fund is 2.20 which says that the fund is less unstable to benchmark indices and it has achieved properly by using offering an higher go back to the investors while it's general deviation of fund is 3.64 it suggests that the funds hazard component is below common typical the fund is presenting common return to the investor and carried out exact.
- HDFC Midcap opportunities fund - it has beta value of fund 0.23 and alpha fee of fund -3.61 the fund has much less volatile to its benchmark indices and the poor value of alpha implies that it has been below preformed to the marketplace moves wherein else it has an preferred deviation of fund is 2.97 it indicates that the budget is extra stable or much less sensitive than the index and provide common return to the investors.

Table (II) Performance Analysis Based On Statistic Parameters

Scheme name	BETA	AIPHA	S.D.
ICICI Prudential mid-cap fund	0.07	-1.73	2.60
SBI Magnum mid-cap fund	0.19	2.20	3.64
HDFC mid-cap opportunities fund	0.23	-3.61	2.97

Source: Data Compiled through Ms Excel

3. Performance Analysis Based On Sharpe Ratio Analysis and Ranking

The table III explains about the performance of a selected Indian mutual fund of large cap category based on Sharpe

ratio and ranking of the fund is made on their highest ratio. A higher Sharpe ratio is therefore better as it represents a higher return generated per unit of risk.

In SBI MAGNUM MIDCAP FUND Sharpe Ratio is 1.30% which gives good return at high risk and have 1st rank whereas ICICI PRUDENTIAL MIDCAP FUND has 1.19% which means it has high risk with average return having 2nd rank and HDFC MID CAP OPPORTUNITIES FUND has 1.0% which is less risky than other fund having the 3rd rank.

Table (III) Performance Analysis Based On Sharpe Ratio Analysis and Ranking

Scheme Name	Sharpe Ratio	Rank
ICICI Prudential Midcap Fund	1.19	2
SBI Magnum Midcap Fund	1.30	1
HDFC Mid Cap Opportunities Fund	1.0	3

Source: Data Compiled through Ms Excel

4. Comparative Analyses between Fund and Bench Mark Return

The table below explains about the comparison made between funds return and its benchmark return. Firstly, ICICI PRUDENTIAL MIDCAP FUND has its benchmark Nifty Midcap 100 Index TRI in its fund return 8.51% as but it has its benchmark return as 13.62% in 3 years. The difference between the return was -5.11%. This shows that fund has outperformed then its benchmark index in this 3 year period. Secondly, SBI MAGNUM MIDCAP FUND has its benchmark Nifty Mid Small cap 400 Index its fund return 12.62% as but it has its benchmark return as 11.80% in 3 years. The difference between the return was 0.82%. This shows that fund has performed well then its benchmark index in this 3 year period. Lastly, HDFC MID CAP OPPORTUNITIES FUND has its

benchmark in NIFTY Midcap 100 its fund return 10.16% as but it has its benchmark return as 12.82% in 3 years. The difference between the return was -2.66%. This shows that fund has outperformed then its benchmark index in this 3 year period.

Table (IV) Comparative Analyses between Fund and Bench Mark Return

Scheme Name	Benchmark	3 year Return (%)	Benchmark Return (%)
ICICI Prudential Midcap Fund	Nifty Midcap 150 Index TRI	8.51	13.62
SBI Magnum Midcap Fund	Nifty Mid Small cap 400 Index	12.62	11.80
HDFC Mid Cap Opportunities Fund	NIFTY Midcap 100	10.16	12.82

Source: Data Compiled from Bulletin

Result of the working hypothesis

The hypothesis of the study is rejected as there is significant difference between the return and Benchmark index of Mid-cap equity fund.

Conclusion

The research paper anatomized the performance of selected Indian mutual funds companies of Mid-cap category. In this paper, the researcher have taken the help of NAV and Total Return in order to use statistical tools like alpha, beta, and standard deviation, Sharpe ratio to compare the funds and to come into conclusion. The above study clears that SBI MAGNUM MIDCAP FUND have performed good beyond its benchmark index in 3 year period of the study as compared to ICICI PRUDENTIAL MIDCAP FUND and HDFC MID CAP OPPORTUNITIES FUND as they have underperformed during the period of study. According to Sharpe ratio SBI

MAGNUM MIDCAP FUND has the highest value than ICICI PRUDENTIAL MIDCAP FUND and HDFC MIDCAP OPPORTUNITIES FUND. So, the above tools should be taken into isolation and apart from that, the expense ratio and turnover ratio of particular portfolio should be taken into consideration while investing in mutual funds.

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The Traditional Dyeing Process with Special Reference to Chakhesang Naga

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Abstract

Colour is one of the elements of nature that made human living more aesthetic and fascinating. It is associated with emotions, seasons, festivals and passion in one's life.

Traditions and culture has been an integral part of the Nagas. They have traditionally been using dyed-cloth from plants since time immemorial. Plants were traditionally used in combination for the extraction and preparation of dyes through indigenous processes. Even before the written records, the tribe women possessed the knowledge of cotton cultivation, cotton spinning, dyeing and weaving. The present study is an appreciation of the knowledge of our ancestors in bringing out the traditional method of dyeing clothes, creating awareness of traditional skills to the modern generation and also to preserve the traditional knowledge in written record. The study will enable to comprehend our age-old arts and skills and create awareness of the pressing need to safeguard our unique heritage. The study shall also inform the present generation of the use of more sustainable methods and less harmful to the environment. In addition, the outcome of the study will enable to expand one's knowledge of the historical practices and customs. The study shows the

decline of indigenous practice of weaving and dyeing in the present generation is due to lack of traditional knowledge as well as the introduction of cheap and fast fashion in the modern market. The study concludes that efforts must be made to preserve the indigenous techniques of dyeing using organic resources.

Keywords: Naga, Chakhesang, dyeing, traditional, culture, process.

I. Introduction

The Nagas are indigenous tribal inhabiting the state of Nagaland situated in North East India. Nagas in particular have 17 major tribes, each occupying a distinct area. In the Naga society, there is no class or caste. Each Naga tribe has its legend to give some indication of the course from which its migration took place. A tribe is distinguished by its language and custom.

The Naga culture is colourful, traditional attires, shawls; wrap-around, etc. are colourful. The rich culture and traditions, loyalty and hospitality are some hallmarks of these tribes. One would identify the use of many eye-catching colour combinations in their traditional attires. Each tribe and sub-tribe produce their unique designs and colours of shawls of both men and women, women wrap around, kilt and sash of men, etc. with decorative objects such as spears, animals, birds and even planetary objects such as sun, moon and stars. The Naga culture also includes songs, dance and music is an essential and integral part of its tradition.

One of the major traditional arts in Nagaland is the art of weaving which the women among these tribal do. Handloom weaving is an age-old practice, the oldest and one of the most universally practiced crafts. It is an important element in everyday life of the people since this is one of the largest family-based traditional industries. The art of spinning, weaving and dyeing among the Nagas remained an exclusive domain of the women. Traditionally, among all Nagas during courtship, men adore women who have the skill of spinning and weaving. It is considered taboo for a man to spin, weave, or dye in the Naga tradition. It is believed, men indulging in feminine work would incapacitate them from pursuing activities like hunting, fishing, wrestling, etc.

The tribeswomen were expected to know the traditional skills like spinning, weaving, dyeing, pounding, husking rice, etc. The art of weaving was handed down from one generation to the next or from mother to daughter. Every girl was trained to weave as they were supposed to weave the family's clothes and make themselves self-reliant.

Weaving is an integral part of a woman's life in the Chakhesang community. A skilled weaver is highly regarded and respected in the community. Young girls have been given a set of weaving tools to use in order to begin learning the craft of weaving. Carding and ginning cotton thread were all tasks performed by female labourers. They also spun, dyed and wove the thread. Threads or yarns were dyed before weaving into clothes. Like any other tribal society, the Chakhesang too had their traditional method of creating dyes. The process was elaborate and numerous taboos were perceived. The method of dyeing cloths in Nagaland is endemic and hand-produced. Before the 1920s, this has been the only method of colouring clothes; however, after the introduction of coloured yarn from

Burma and the introduction of synthetic colours in Europe, dyeing culture began to go away.

Objectives: The study is undertaken with the objectives to comprehend the creativity of our ancestors in bringing out the traditional method of dyeing clothes. And also it aims to create an awareness of an ancient traditional skill to the modern period.

Study Area: The present study focuses on the traditional practices of weaving and dyeing of the Chakhesang Naga tribe. Chakhesang Naga tribe is the indigenous inhabitants of Phek district locating in the south-eastern part of the State. Chakhesang is one of the major tribes of Nagas. The Chakhesangs were previously known as ‘Eastern Angami’. There are valuable treasures passed down from generation to generation that may be seen in its cultural wealth and traditions with the Chakhesang tribesmen. The region has been named as “the Land of Traditions” for this very simple reason. Chakhesang people are fond of festivals and celebrations. Festivals are not only a merry-making event, but it showcases talents, customs, art and dances and so on. Amongst others, traditional magnificent architectural woodcraft displayed in front of their house and village gates alongside the Mithun horns and heads, making earthen pots (pottery), etc., were some of the items, showcased during festivals. Hence, the festivals are in fact a mega event showcasing the life and culture of the Chakhesang people.

In the next section II, culture of weaving such as cotton ginning, carding and spinning is presented. The procedure of dyeing colours is discussed in section III, while summary and suggestions have been highlighted in concluding section IV.

II. Method of weaving

Weaving is a centuries-old practice among the Chakhesang Naga tribe, and it is still popular today. The exuberance and festive mood are expressed in their attire. Weaving is done mostly on the days when women are off from working in the fields. The men manufacture the loom made out of wood and bamboo, grown locally in the forest. The women sit on their looms for long hours weaving the horizontally stretched threads back and forth. The process of weaving is still primitive and tedious. The shawls are colourful and neatly designed. They love to wear traditionally woven dresses during cultural events as it provides them with an avenue for sustenance. Older women who are physically weak to work in the field did the traditional weaving procedure like spinning, fluffing or carding, ginning and picking cotton.

Weaving is the craft of lacing fibers together to make fabric or cloth. One cannot understand the dyeing of colours without knowing the art of weaving and its different patterns and colours mixture into the desired material. Simple back strap loom with a continuous horizontal warp made up of six sticks that serve as the lease rod, warp beam, beating sword, heddle stick and in addition to the other functions. In order to establish the loom, first the warp beam must be firmly connected to the wall of the house or to any other acceptable kind of support that will allow the loom to be put in a horizontal position. Two loops of bark string have been placed onto thereafter. The spacing between the loops and the length of the shawl is determined by the length of previously woven piece of fabric which is already in a fixed position. Generally, it used to have distance equal to a little longer than the width of the piece of cloth that is to be weaved. In order for the weaving belt to be fastened to the lower bar or cloth beam, it is notched at

either end. The belt then is worn by the operator on her back. She can maintain the appropriate tension on the warp while sitting on a low seat in front of the loom with her feet pushing on a sturdy support. With the belt around her waist, she sits on a bar attached to a beam that is either linked to a wall or two stakes in the ground, keeping the required tension on her back. The warp threads are used to create the cloth's patterns, which are created by combining a variety of colours.

Each tribe and sub-tribe produce their unique designs and colours of shawls for both men and women, wrap-around skirt of women, kilt, the sash of men, etc. with decorative items like pleats, mithun, elephant, butterfly, spears, flower, peacock, even planetary things including stars, moon and sun. For example, the *Thüpi khü* shawl of the Chakhesangs is embroidered with ten patterns except the spear and is worn by those who have offered feast of merit. *Rira* shawl of the Chakhesang is the most popular and common for men sewed in spear pattern. While women wear *Rura* shawl embroidered in bone pattern.

Cotton ginning: Ginning is the art of removing seeds or deseeding from the harvested cotton balls. Deseeding cotton is simpler when the cotton is warm and dry. Rolling the cotton on a flat stone with a rolling pin removes the seeds. Cotton is one of the world's oldest basic materials and it has been used for centuries. Depending on the culture, it can be defined in a variety of ways. Only a small section of the Jhum field is used to cultivate cotton though it is an essential product to the indigenous Nagas. However, if it is favourable then even in that small area cultivation could yield plenty for their home requirements. Those areas or villages, which are not favourable for growing cotton, they purchased from others in exchange for other food grains. Traditionally cotton textile played an important role in Naga society.

Cotton Carding: Carding is the process to comb out the tangled fibers. A small-sized bow is flicked over the cotton to fluff after it has been cleansed of its seeds, while also, removing most of the remaining impurities. The fluffed cotton is rolled on a woman's thigh. Then the cotton thread or ball is ready for a spin.

Spinning: The method of spinning is primitive and involves simple tools. The spindle is handmade from a bamboo stick. The spindle is formed of a long hardwood spike with a tip at the bottom, having the maximum thickness directly above this point. Above this, there is a round flat stone spindle-whorl, cut, trimmed and bored in the middle, through which the wooden stem is passed from the other end. For stability, a cloth is placed over the pot-sherd-covered tip of a spindle weighted by these stones. By hand, with the aid of a round stick, the clean cotton is carefully rolled into sausages that resemble silvers and lay out on a flat stone or board to dry. The thread is coiled into a type of double *T-shaped* stick after it has been spun on the spindle. It is then unwound and immersed in hot rice water, where it hardens as it dries, before being coiled onto a lightweight bamboo frame. It is twisted into a ball using this frame as a guide. The cotton thread is then spun into yarn. When the thread is unwound, the yarn is ready for dyeing and weaving.

III. The procedure of dyeing

It is likely that humans discovered dye-producing plants as a result of their natural curiosity about the traditional dyes that have played such a significant role in human civilization. Colours were traditionally connected with many cultural rites and rituals in ancient times, but this has changed recently. The word "Dye" comes from an ancient English word that means

“colour,” which is derived from the word “daeg” or “daeh”. The art of dyeing was as old as human civilization. Generally, women carried out the whole process of dyeing and followed certain restrictions to avoid unscrupulous premonition. The entire process of dyeing was meticulous and demanded caution and therefore, the products are generally a trifle expensive. The process of dyeing of any colour was restricted before the harvest; for they believed that it may detriment the crops. The process of dyeing was carried out outside the village jurisdiction, either in the fields or in the riverside.

Typically, an earthen pot was used to prepare the dye materials as well as the yarn. It was usually not recommended to reuse the pot for other cooking purposes. Pregnant women were prohibited to handle the dyeing procedure to avoid harming the foetus. Lactating mothers were off bounds. Also, outsiders were not allowed to speculate during the dyeing process. During the process of dyeing, women were not allowed to consume food until the entire process was completed. In the Chakhesang Naga tribe, for the preparation for the *Sükrünnye* festival, tribeswomen usually dye new yarn every year and reuse old clothes to celebrate the festival. Hence, the course of dyeing has been an annual activity. Weaving and dyeing are of women’s affair. Therefore, it was a common practice that every woman weaves for the family members.

Colours like black, yellow and red have been extracted and derived from roots, barks, leaves, flowers, charcoal, mud, etc.

Black colour: The black dye is obtained from the shrub called Assam Indigo and Chinese Rain Bell (*Strobilanthes flaccidifolius*). *Lotüpri* in Chokri dialect where both the leaves and stem of the shrub are cut into small pieces and heated in an earthen pot. The shrub is cooked for at least an hour. The

leaves and residues are strained and the thread is merged into the solution and bubbled until it is completely black. The yarn is then taken out and dried in the sun. On the second day, the same process is continued until the desired colour is achieved. Another means to obtain the black colour is by using the bark of Oak tree (*quercus griffithii*) called *dutshu*¹ in Khezha dialect. Here the bark of the tree is removed and mixed with mud and pounded charcoal into an earthen pot and cooked. The process is repeated until the desired colour is obtained.

Red colour: The colour red is obtained from the bark of a tree called *Ezutshu*² in Khezha dialect (*leucaena leucocephala*). The bark of this tree is used as a colouring agent; it is mixed with the roots of a creeper plant called *Emi* in Khezha dialect (*rubia edgeworthii*). The roots of this creeper are beaten, split, and dried in the sun properly. These two plants are cooked together to produce the colour; the process is continued until the desired colour is reached.

Yellow colour: The yellow colour is obtained from a tree called *Athuo* in Angami dialect Oregon Grape (*Mahonia Japonica*). After removing its bark, the wood part is sliced into small pieces and boiled with the yarn. The whole process is repeated until the desired colour is acquired. Another way to produce yellow dye is by using the flower of a tree called *Mekhabo*³ in Khezha dialect Panicked Butterfly Bush (*Buddleja paniculata*). The flower or budding of this *Mekhabo* flower is yellowish-white in colour, thus it results in favourable colour. The flowers are cooked with the thread until the colour is obtained. The dyeing thread is sundried and ready to weave.

¹ The same is called *Phrü* in Chokri dialect.

² The same is called *Züsüh* in Chokri dialect.

³ The same is called *Mechüsüh* in Chokri dialect.

Challenges of traditional dyeing process

Due to the wide range of applications for dyes in the present era of development, dyes have risen to become the most valuable resource. Traditional fibres are being phasing out in favour of synthetic fibres because of their comfort, ease of availability and low-cost. Synthetic dyes are also available in a variety of colours. The modern technology has brought about changes even in weaving technology and traditional practices. Weavers are now relying more on the market for a substantial portion of their raw materials. Furthermore, people choose to acquire low-cost textile machines rather than traditional handlooms as a result of the rise in population and the expansion of textile industries. Machine-made clothes are wearable in all seasons and also more cost-effective. However, it is to be noted that in textile industries, more balls of cotton are utilized for synthetic dyeing. Industrialization has brought about natural dyes along with cottage industries both in urban as well as rural areas putting the traditional practices at a disadvantage position, which is in fact a serious challenge. Hence, because of the availability of synthetic dyes in the market, there is hardly any need for the community to practice their detailed dye-making process which is expensive and time consuming. Thus, the market competition and the convenient way of weaving and dyeing is pushing the art of tradition weave and dyeing into extinction.

IV. Conclusion

The traditional dyeing methods are biodegradable and eco-friendly compared to synthetic colours. The indigenous traditional knowledge on various resources including dye and fiber yielding plants is an essential part of our life. As a result, systematic approaches with a scientific attitude would help the conservation of economically important plants as well

as the indigenous knowledge base available locally. Despite technological advancements, there is a need to resuscitate the practice of natural dyeing for a more sustainable living.

It is therefore, observed that the traditional techniques and methods need to be documented in written and oral form to disseminate the knowledge to the present and future generations. Also, introducing programs for such related projects for students and professionals must be initiated by community as well as by the Government agencies. Hence, organising workshops and seminars on the importance of natural dyeing will enrich the knowledge of the contemporary period. It also must aim to develop more sustainable ways of living through dyeing and weaving so that it will create harmony between the sustainability and environmentally conducive for the upcoming generation. Hence, it will also enable the modern factories to reduce the use of artificial chemical resources. Furthermore, efforts should be made to create livelihood opportunities for both men and women in this area of profession in order to create an alternative to white collar jobs.

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Nanotechnology Based Drug Delivery Systems in Cancer Treatment - A Review

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Abstract

Cancer is caused by damage of genes which control the growth and division of cells. In the fight against cancer, early detection is a key factor for successful treatment.

However, the detection of cancer in the early stage has been hindered

by the intrinsic limits of conventional cancer diagnostic methods. Nanotechnology provides high sensitivity, specificity, and multiplexed measurement capacity and has therefore been investigated for the detection of extracellular cancer biomarkers and cancer cells, as well as for in vivo imaging. These advances will improve the survival rate of cancer patients by enabling early detection. In addition, it could be used to monitor cancer progress in response to treatment, which may contribute to the development of better strategies for cancer treatment. In fact it holds tremendous potential as effective drug delivery systems. Nanoparticles based drug delivery and targeting systems under development aim to minimize harmful side effects and increase the bioavailability of drugs for action at the specific site of cancer. This review paper is an overview of nanotechnology based drug delivery systems for cancer treatment.

Keywords: Nanotechnology, nanoparticles, cancer diagnosis, cancer biomarker.

1. Introduction

Cancer is a disease caused when cells divide uncontrollably and spread into surrounding tissues. It is one of the major health concerns of the 21st Century which does not have any boundary. The rate at which cancer is honouring is only increasing as time goes on due to such factors as increases pollution, radiation, lack of exercise and a balanced diet, among other variables such as genetics. Anyone of these factors can lead to a mutation in the DNA of our cells like oncogenes and develop into cancer [1, 2]. The immortalization at astonishing rates, overtake all the healthy functional cells and eventually lead to death. A variety of approaches are being practiced for the treatment of cancer which has some significant sight effects. Cancer treatment includes surgical removal chemotherapy radiation and hormone therapy. In recent years, significant efforts enhance the delivery of anticancer drug to tumor tissue.

The role of nanotechnology has come in many aspects and is radically changing the treatment pattern of various diseases and cancer in particular. It recognizes the cancerous cells very selectively and targets the drug delivery. It ensures enhanced permeability and retention to localize in solid tumors and not in healthy tissues. Cancer nanotechnology is rising very enthusiastically as a major advancement in detection, diagnosis, and treatment of the disease. Nanotechnology holds tremendous potential as an effective drug delivery system.

Drug delivery systems include liposomes, polymeric micelles, dendrimers, nanospheres, nanocapsules, and nanotubes as reported by Praetorius and Mandal (2007) and Park (2007). Nanomaterials and nanoscale devices for diagnosis, treatment and monitoring diseases is a fast developing area of biomedical research. It involves the understanding and control of matter on a scale of 1 to 100 nanometres. On nano scale, there is vast increase in ratio of surface area to volume. Due to this, materials at nanometre -scale exhibit unusual properties. When you change the size of a particle, it can change colour that's because in nanometre-scale particles, the arrangements of atoms reflect light differently. Nanotechnology offers great visions of improved, personalized treatment of disease. The hope is that personalized medicine will make it possible to develop and administer the appropriate drug, at the appropriate dose, at the appropriate time to the appropriate patient. The benefits of this approach are accuracy, efficacy, safety and speed. Some techniques are only imagined, while others are at various stages of testing, or actually being used today. While some researchers use the term nanomedicine to refer to applications of nanoparticles currently under development, other researchers reserve the term nanomedicine to refer to longer range research that involves the use of manufactured nano-robots to make repairs at the cellular level. While nanomedicine potentially offers promising new value propositions and revenue streams, it also could completely displace certain classes of drugs [5]. For example, currently-employed chemotherapeutic agents are being substituted with novel nanoparticle reformulations. Today, commercial nanomedicine is at a nascent stage of development and its full potential years or decades away. Currently, the most advanced area of nanomedicine is the development and use of nanoparticles for drug delivery. Smart superparamagnetic iron

oxide particle conjugates can be used to target and locate brain tumors earlier and more accurately than reported methods. It is known that folic acid combined with polyethylene glycol can further enhance the targeting and intracellular uptake of the nanoparticles. Therefore, nanomaterial holds tremendous potential as a carrier for drugs to target cancer cells.

Designing nanoparticles loaded with recognition proteins can target specific cancer cell. The advantages of such targeting include the significantly reduced as well as the drug concentration on the cancer site can be increased without any lead effect on healthy cells. The physicochemical characteristics of nanotechnology platforms, such as composition, particle size, surface charge, surface functionalization with hydrophilic polymers, and inclusion of tissue –recognition ligands, will conduct their bio distribution and pharmacokinetics.

2. Background

Nanomedicine is the medical application of nanotechnology. It covers areas such as nanoparticle drug delivery and possible future applications of Molecular Nanotechnology (MNT) and nanovaccinology. Current problems for nanomedicine involve understanding the issues related to toxicity and environmental impact of nanoscale materials. Some of the examples where nanotechnology shows promise include multifunctional nanoparticles for imaging and therapy (in diseases such as cancer), nanochannel implants for controlled release of drugs, nanoscale devices for evaluation of proteomics and genomics, and diagnostic techniques that take advantage of physical changes in diseased tissue. Recent advances in nanotechnology have made possible the design and development of tubular nanoscale particles called nanotubes [10-15, 19]. The tubular shape of such particles is highly attractive since it is possible

to differentially functionalize the inner and outer surfaces to facilitate drug loading, biocompatibility, and bio recognition. Novel synthetic strategies allow the fabrication of tubular structures with well-defined diameters and lengths. This can have important implications in bio distribution, sub cellular trafficking, and drug release. Magnetic nanoparticles with appropriate surface coatings are increasingly being used clinically for various biomedical applications, such as magnetic resonance imaging, hyperthermia, drug delivery, tissue repair, cell, and tissue targeting and transfection. This is because of the nontoxicity and biocompatibility demand that mainly iron oxide-based materials are predominantly used, despite some attempts to develop 'more magnetic nanomaterials' based on cobalt, nickel, gadolinium, and other compounds. The first use of the distinguishing concepts in 'nanotechnology' was in "There's Plenty of Room at the Bottom," a talk given by physicist Richard Feynman at an American Physical Society meeting at Caltech on December 29, 1959. This idea has been expanded tremendously in biomedical field. Nanotechnology and nanoscience got started in the early 1980s with two major developments; the birth of cluster science and the invention of the scanning tunnelling microscope (STM). This development led to the discovery of fullerenes in 1986 and carbon nanotubes a few years later. In another development, the synthesis and properties of semiconductor nanocrystals was studied. This led to a fast increasing number of metal oxide nanoparticles of quantum dots. The atomic force microscope was invented five years after the STM was invented. The AFM uses atomic force to see the atoms. Nanotechnology has the potential to have a revolutionary impact on cancer diagnosis and therapy. It is universally accepted that early detection of cancer is essential even before anatomic anomalies are visible. A major challenge in cancer diagnosis in the 21st Century is to

be able to determine the exact relationship between cancer biomarkers and the clinical pathology, as well as, to be able to non-invasively detect tumors at an early stage for maximum therapeutic benefit. For breast cancer, for instance, the goal of molecular imaging is to be able to accurately diagnose when the tumor mass has approximately 100-1000 cells, as opposed to the current techniques like mammography, which require more than a million cells for accurate clinical diagnosis. In cancer therapy, targeting and localized delivery are the key challenges. To wage an effective war against cancer, we have to have the ability to selectively attack the cancer cells, while saving the normal tissue from excessive burdens of drug toxicity. However, because many anticancer drugs are designed to simply kill cancer cells, often in a semi-specific fashion, the distribution of anticancer drugs in healthy organs or tissues is especially undesirable due to the potential for severe side effects [25-30, 39]. Consequently, systemic application of these drugs often causes severe side effects in other tissues (e.g., bone marrow suppression, cardiomyopathy, neurotoxicity), which greatly limits the maximal allowable dose of the drug. In addition, rapid elimination and widespread distribution into non-targeted organs and tissues requires the administration of a drug in large quantities, which is often not economical and sometimes complicated due to non-specific toxicity. This vicious cycle of large doses and the concurrent toxicity is a major limitation of current cancer therapy. In many instances, it has been observed that the patient succumbs to the ill effects of the drug toxicity far earlier than the tumor burden. Recent developments in nanotechnology can address these challenges. In the following section we have discussed implication of nanotechnology and nanomedicine in cancer detection and treatment.

3. Nanoparticles- Drug Delivers

The applications of nanoparticles for drug delivery provide the potential for enhanced treatments with targeted delivery and fewer side effects. Here I have highlighted some important kinds of Nanoparticles.

3.1 Polymeric Nanoparticles

Polymer based nanoparticles involve various natural or biocompatible synthetic polymers. They include rationally designed macromolecular drugs, polymer drug and polymer-protein conjugates, polymeric micelles containing covalently bounded drugs and polyplexes for DNA delivery. Polymer nanoparticles can be divided into nanospheres, which build a continuous polymer matrix and can be referred as “drug sponges” and nanocapsules, which consist of a polymer layer enclosing a fluid-filled cavity and mimic liposomes.

Nanoparticles, including nanospheres and nanocapsules, can be amorphous or crystalline. They are able to absorb or encapsulate a drug, thus protecting it against chemical and enzymatic degradation. In nanocapsules, the drug is confined to a cavity surrounded by a polymer membrane, while nanospheres are matrix systems within which the drug is dispersed physically and uniformly. Biodegradable polymeric nanoparticles have attracted considerable attention in the controlled release of drugs in targeting particular tissues, as carriers of DNA in gene therapy and in their ability to deliver proteins peptides and genes by the oral route.

3.2 Lipid – Based Nano Particles

Lipid based nanoparticles, combining the advantages but avoiding the disadvantages of other colloidal carriers, have

attracted increasing attention in recent years and regarded as alternative carrier systems to traditional colloidal systems, such as emulsions, liposomes and polymeric micro particles and nanoparticles.

3.3 Biological Nanoparticles

The conjugation of biological molecules and synthetic polymers is an efficient means of improving control over the Nanoscale structure formation of synthetic polymers that can be used as drug delivery systems. The conjugation of suitable synthetic polymers to pepside or proteins can reduce toxicity, prevent immunogenic side reactions, enhance blood circulation times and improve drug solubility.

3.4 Metallic Nanoparticles

Metal-based nanoparticles is the generic term for several nanoparticles, for example metal oxide and non-oxide ceramics, metals, calcium phosphate, gold, silicate and magnetic nanoparticles. So called “nanoshells” combine various inorganic elements or materials. They have attractive properties like high surface Plasmon resonance, optical properties which can be tuned from visible to infra-red range. They possess large surface energy and have the ability to absorb small molecules. Gold, silver and platinum are some of the metallic nanoparticles that have been used for cancer diagnosis and therapy [33, 38]. The Gold nanoparticles have already been used as a vehicle for the delivery of anti-cancer drugs such as paclitaxel. Properties of gold nanoparticles including small size, bio-compatibility, high atomic number and ability to bind targeting agents gives an advantage over other nanoparticles to be used as contrast agents. The formation of bubble around the overheated gold nanoparticles in liquid environment followed by generation of acoustic

and shock waves protein inactivation has become a profound area of research. The Gold has also been used together with magnetic materials to improve the photo thermal effect to accelerate the death of cancer cells. Platinum nanoparticles act as prominent radiation sensitizers in radiotherapy cancer treatment showed improvements in biological efficiency of radiations, leading to amplified damage in DNS from tumor cells when compared to metal atoms. Silver nanoparticles can be used for both active and passive targeting of drugs [26, 30]. It has been emerged as an attractive candidate for delivery of various small drug molecules or large biomolecules like proteins, DNA or RNA.

3.5 Hyperthermia Magnetic Nanoparticles

The Magnetic nanoparticles have been used in biomedical field including cancer treatment. One of the most widely used nanoparticle of this kind are the Super magnetic iron oxide nanoparticles (SPIONs). One of the distinguishing features of SPIONs for drug deliver is their applicability for both magnetic properties and anti-body attachment which will improve targeting capability [31, 06]. Magnetic iron oxide particles offer a huge advantage over the other particles since they are highly bio-compatible. Magnetic nanoparticles are currently in development as a promising new type of cancer treatment which selectively heat tumor cells to temperatures high enough to kill cancer cells without harming normal ones. This destroys tumors and leads to the activation of immune system to attack other cells throughout the body. In this process, the heat produced can kill the cancer cells and releases the drug from the nanoparticles directly inside the cancer cells. Magnetic radiated hyperthermia can be used for local tumor treatments. It also ramps up the immune system to find and destroy distant cells. This is because cancer cells

produce more heat shock proteins (HSPs). When cancer cells are heated to high temperatures, they produce HSPs in high quantities which in turn binds to antigens (molecules or proteins that trigger an immune response) [16, 17]. When some cells are destroyed by the heat, their HSPs and antigens are released into the body that attracts cells from the immune system which then interact with the HSP antigen complex and use them to hunt down other cancer cells that were not damaged by the initial heating. Magnetic nanoparticles used as nano-heaters can be activated by an external magnetic field, through the magnetic coupling between the magnetic component of the field and their magnetic moment. Magnetic nanoparticles absorb the energy from this coupling phenomenon, and dissipate it as heat. For these magnetic fields, biological tissues are “transparent” with no significant energy deposition, thus this technique is safe for cancer treatment.

4. Drug Delivery Systems

Drug delivery system can be designed to improve the pharmacological and therapeutic properties of drugs. The strength of drug delivery system is their ability to alter the pharmacokinetics and distribution of the drugs. Nanoparticles have unusual properties that can be used to improve drug delivery where large particles would have been cleared from the body; cells take up these particles because of their size. Complex drug delivery mechanisms are being developed, including the ability to get drugs through cell membranes and into cell cytoplasm.

Colloidal systems such as micellar solutions, vesicle and liquid crystal dispersions as well as nanoparticles dispersions consisting of small particles of 10-400 diameter show great

promise as carriers in drug delivery system. Some important carriers are discussed below.

4.1 Quantum Dots

The Quantum dots are nano-crystals ranging from 2-10nm which have extensively attracted great interest in the field of biology and medicine because of its unique optical and electrical properties. They have a distinct advantage over conventional biomarkers because of their high photo stability and size tenable excitation [12, 19]. Use of quantum dots has been extended in the NIR wavelength range as an imaging probe. The main advantage of the technique is that it increases the depth of tissue penetration which will lead to more accurate detection in-vivo. Materials best suited in building up quantum dots are cadmium sulphide and cadmium selenide. However, based on factors like toxicity and bio-compatibility, Zinc Sulfide is preferred. Applications of quantum dots include in-vivo and in-vitro imaging, live cell imaging and single molecule tracking [22, 28]. It is used for the detection of lung cancer, breast cancer, prostate cancer and pancreatic cancer, detection of primary tumor in vitro, prostate cancer, targeting and imaging melanoma and also detection of thyroid carcinoma antigen.

4.2 Carbon Nanotubes

The Carbon Nanotubes belong to the family of fullerenes and are formed of coaxial graphite sheets (<100 nm) rolled up into cylinders. Structurally there are two types: single-walled carbon nanotubes (SWCNTs) and multi-walled carbon nanotubes (MWCNTs). It possesses properties such as high aspect ratio, ultralight weight, tremendous strength and high thermal conductivity. In the field of cancer, diagnostic and therapeutic, three main properties have been exploited i.e.,

small size, high surface area to volume ratio and their ability to contain chemicals [26, 29]. Surface of carbon nanotubes can be modified with proteins for cellular uptake which are then heated up upon absorbing near-IR light wave. When exposed to near-IR light, carbon nanotubes quickly release excess energy as heat ($\sim 70^{\circ}\text{C}$) which can kill cancerous cells. Due to their unique properties, they have wide ranging applications in cancer diagnosis and therapy. Some of the notable applications in cancer diagnosis are molecular imaging with single-walled carbon nanotubes and cancer biomarker detection. It is also used for drug delivery and thermal therapy. The CNTs have proposed as a promising tool for detecting cancer at early stages with high sensitivity, selectivity and low detection limit.

4.3 Liposomes

Liposomes are small spheres having lipid layer that surrounds an active pharmaceutical ingredient. They can also be designed to deliver drugs. Liposomes that contain low pH can be constructed such that dissolved aqueous drugs will be changed in solution. As pH naturally neutralizes within the liposome, the drug will also be neutralized, allowing it to pass freely through a membrane. Another strategy for liposome drug delivery is to target endocytosis events [17]. Liposomes can be made in a particular size range that makes them viable targets for natural macrophage-phagocytosis. These liposomes may be digested while in the macrophage, phagosome of the thus releasing its drug. Liposomes can also be decorated with opsonins and ligands to activate endocytosis in other cell types.

4.4 Dendrimers

Dendrimers are nanometre sized polymer macromolecules. They have a high degree of molecular uniformity, narrow

molecular weight distribution, specific size and shape characteristics and a highly functionalised terminal surface. The manufacturing process is a series of repetitive steps starting with a central initial core. Each Subsequent growth step represents a new “generation” of polymer with a large molecular diameter, twice the number of reactive surface sites, and approximately double the molecular weight of the preceding generation. The core chemistry determines the solubilising properties of the cavity within the core, whereas external chemical groups determine the solubility and chemical behaviour of the dendrimer itself. Targeting is achieved by attaching specific linkers to the external surface of the dendrimer which enable it to bind to a disease site, while its stability and protection from phagocyte is achieved by “decorating” the dendrimers with polyethylene glycol chains[10].

5. Discussion and Future Directions

Nanotechnology has many advantages in cancer therapy. With small size, nanotechnology platforms can enter tumor vasculature via EPR (Enhanced Permeability and Retention). Besides, functionalization with hydrophilic polymer/oligomer can offer a long circulation halflife and prolong the exposure time of tumor tissue to anticancer agents; Whereas inclusion of tissue recognition residues, such as antibodies, lectins and ligands which are specific for cancer cells, can help nanotechnology platforms achieve tumor cell targeting. For overcoming MDR (Multidrug Resistance) of cancer cells, a major challenge in effective cancer therapy, combinations of multifunctional nanotechnology platforms and other therapies have been developed and achieved significant successes. However, there are still challenges to the development and application of nanotechnology platforms in cancer therapy,

such as limited knowledge of the cancer cell physiology, small variety and poor functionalization of medical nanomaterials, and deficiency of clinical evaluation criteria. Nonetheless, with further advances in functionalization base on thorough understanding of the physiological features of cancer cells, nanotechnology platforms hold the promise of essentially changing the practice of oncology, allowing easy and effective targeted therapies.

In the fight against the pain, suffering, and death due to cancer, nanotechnology may allow prevention, earlier detection, diagnosis and prognosis of cancer at premalignant stages, in addition to providing multimodality treatment which is not possible with current conventional techniques. The successful clinical applications of radiolabel monoclonal antibodies for cancer detection and therapy bode well for the future of nanoscale carrier systems in clinical oncology. Several radiolabel multifunctional nanocarriers have been effective in detecting and treating cancer in animal models. Nonetheless, further preclinical, clinical, and long-term toxicity studies will be required to translate this technology to the care of patients with cancer [25-30, 33]. Super paramagnetic iron oxide nanoparticles (SPION) with appropriate surface chemistry have been widely used experimentally for numerous *in vivo* applications such as magnetic resonance imaging contrast enhancement, tissue repair, immunoassay, detoxification of biological fluids, hyperthermia, drug delivery, and in cell separation, et cetera. All these biomedical and bioengineering applications require that these nanoparticles have high magnetization values and size smaller than 100 nm with overall narrow particle size distribution, so that the particles have uniform physical and chemical properties. In addition, these applications need special surface coating of the magnetic particles, which has

to be not only non-toxic and biocompatible but also allow a targetable delivery with particle localization in a specific area. To this end, most work in this field has been done in improving the biocompatibility of the materials, but only a few scientific investigations and developments have been carried out in improving the quality of magnetic particles, their size distribution, their shape and surface in addition to characterizing them to get a protocol for the quality control of these particles. Nature of surface coatings and their subsequent geometric arrangement on the nanoparticles determine not only the overall size of the colloid but also play a significant role in biokinetics and biodistribution of nanoparticles in the body, especially in cases where specific receptors are located on the outer surface of cells. The types of specific coating, or derivatization, for these nanoparticles depend on the end application and should be chosen by keeping a particular application in mind, whether it be aimed at inflammation response, vaccine efficacy, or anti-cancer agents [11, 18]. Magnetic nanoparticles can bind to drugs, proteins, enzymes, antibodies or nucleotides and can be directed to an organ, tissue, or tumor using an external magnetic field or can be heated in alternating magnetic fields for use in hyperthermia. In the near future, advancement in nanomedicine will deliver a valuable set of research tools and clinically helpful devices. The National Nanotechnology Initiative expects new commercial applications in the pharmaceutical industry that will include advanced drug delivery systems, new therapies and in vivo imaging. Farther down the line, neuro-electronic interfaces and cell repair machines, considering their application in brain tumors, could revolutionize medicine and the medical field, but now nanomedicine is becoming one of the biggest industries in the world. In 2004, nanomedicine sales reached 6.8 billion dollars, and with over 200 companies

and 38 products worldwide, a minimum of 3.8 billion dollars in nanotechnology R&D is being invested every year. As the nanomedicine industry continues to grow, there is no doubt that it will have a significant impact on the economy. Here, it is emphasized that nanotechnology related information can be tested in one disease and then custom made for other diseases. The most important innovations are taking place in drug delivery, which involves developing nanoscale particles or molecules to improve bioavailability. Bioavailability refers to the presence of drug molecules where they are needed in the body and where they will do the most good. Drug delivery focuses on maximizing bioavailability both at specific places in the body and over a period of time [39-43, 46]. Over 65 billion dollars is wasted every year because of poor bioavailability. In vivo imaging is another area where tools and devices are being developed. Using nanoparticle contrast agents, images such as ultrasound and MRI have a favorable distribution and improved contrast. The new therapies and surgeries that are being developed might be effective in treating illnesses and diseases such as cancer. Finally, a shift from the possible to the potential will be made when nanorobots such as neuroelectronic interfaces and cell repair machines. The potential applications of nanotechnology, most current commercialized applications are considered for the use of “first generation” passive nanomaterials. These include titanium dioxide nanoparticles in sunscreen, cosmetics and some food products; silver nanoparticles in food packaging, clothing, disinfectants, and household appliances; zinc oxide nanoparticles in sunscreens and cosmetics, surface coatings, paints and outdoor furniture varnishes; and cerium oxide nanoparticles as a fuel catalyst. The Woodrow Wilson Center for International Scholars’ Project on Emerging Nanotechnologies hosts an inventory of consumer products that now contain nanomaterials. However,

further applications that require actual manipulation or arrangement of nanoscale components await further research. Though technologies currently branded with the term ‘nano’ are sometimes little related to and fall far short of the most ambitious and transformative technological goals of the sort in molecular manufacturing proposals, the term still connotes such ideas. Thus, there may be a danger that a “nano bubble” will form, or is forming already, from the use of the term by scientists and entrepreneurs to garner funding, regardless of interest in the transformative possibilities of more ambitious and far-sighted work.

With this promising progress in the development of nanotherapeutic and imaging approaches to cancer detection and treatment, it is imperative to have a better understanding of the basic principles involved in designing and applying nanoparticles for diagnosis, treatment, or the combination of imaging and therapeutic in different clinical situations. There are certain critical questions that need to be addressed in the rational design and application of nanoparticles before further clinical development, such as how the association or conjugation of a therapeutic agent to ligand or carrier changes the pharmacokinetics, biodistribution and side effects of the nanotherapeutic drugs; how the safety profile of nanoparticles changed after conjugation, such as coating with quantum dots; how we can minimize the potential toxicity of polymeric nanoparticles that is inherent from the accumulation of a non-biodegradable polymer with a size over the renal threshold [31]; and how side effects resulting from the ability of nanoparticles to cross the blood- brain barrier (BBB) can be prevented or diminished [36, 37]. These questions are critically important and hitherto understudied. The answers will certainly lead to more rational design of optimized nanoparticles with improved selectivity, efficacy and safety. Attracted by the rapid and

promising progress in nanotechnology, physicists, chemists, engineers, biologists and clinicians will continue to challenge themselves to develop novel and efficacious nanosystems for the diagnosis and treatment of cancer. Biodegradable polymeric nanoparticles have attracted considerable attention in the controlled release of drugs in targeting particular tissues, as carriers of DNA in gene therapy and in their ability to deliver proteins peptides and genes by the oral route. Although there is potential for use of mNPH as a non-targeted monotherapy, the greatest potential for mNPH is likely due to its ability to act as an adjuvant or targeted therapy; these possibilities must be further explored. Lipid based nanoparticles, combining the advantages but avoiding the disadvantages of other colloidal carriers, have attracted increasing attention in recent years and regarded as alternative carrier systems to traditional colloidal systems, such as emulsions, liposomes and polymeric micro particles and nanoparticles [47, 48]. At this point of studies on the effectiveness of nanobiodrugs on cancer in large animals are currently underway.

The three most common techniques being used today to treat cancer are surgery, radiation, and, of course, chemotherapy. They all involve harsh operations that entail not only killing cancer cells, but regular cells that the body actually needs. Finding alternatives to these methods has been the focus of researches since day one but the problem with most new methods is that they just aren't as effective as what we are already using. How does nanotechnology compare?

From the information that has been gathered, nanoparticle therapies vary in their efficacy and results. There is no consensus because there are so many different kinds of NP treatment techniques. It can be said, however, that most of the research being done has yielded very positive results in

the aim of killing cancer while leaving healthy tissue alone for the most part. They are associated with far less side effects than that of conventional therapies as the NPs being used are mainly biocompatible, non-toxic, chemically stable materials. Efficient drug delivery means that therapeutic chemicals can be transported safely to target sites without significantly degrading and harming the body. Nanocarriers seem to do just that. Whether or not they are equal to or better than conventional treatments in regards to “treating cancer” is tough to say however further research is needed in order to make this determination. Many researchers have actually found that it is beneficial to use a mix of multiple therapies, as is already done in medicine, but incorporating nanocarriers into the mix to offer a wide range of capabilities.

6. Conclusion

In the past 10 years, many efforts have been made to develop assays for cancer diagnosis based on nanotechnology. Compared with the currently available cancer diagnostics in the clinic, a variety of nanoparticle-based assays showed improvement in terms of selectivity and sensitivity or offered entirely new capacities that could not be achieved with traditional approaches. These advances will improve the survival rate of cancer patients by enabling early detection. In addition, these advances could be used to monitor cancer progress in response to treatment, which may contribute to the development of better strategies for cancer treatment. So it can be concluded that Nanotechnology has large potential in detection and treatment of cancer in its incipient stage. The potential arises due to the ability of nanoparticle entering inside the cells and access to the chromosomes/ Flexible Nucleic Acid molecules. Certain nano structures like nanocantilevers, nanopores, nanotubes, nanoshells and

quantum dot are prospective structures that would help in detecting and treatment of cancers. Dendrimers are to serve detection, treatment and signalling that the cells are killed. Still there are many challenges that are to be met before use of Nanotechnology becomes a reality. Toxicity of the nanoparticle is an issue that is to be resolved through legislative and regulatory means.

Though progress in drug delivery by nanotechnological devices has been dramatic, however, there are some challenges that need to be addressed: (a) deeper understanding of intracellular uptake mechanisms, and the fate of nanodevices in biological tissues, (b) any negative or side-effects of the interactions between nanodevices and biological systems – production of free radicals, damage to the interacting tissue, (c) scaling up of pilot experiments to large scale production, cost of materials needed, quality control for nanodevice materials, and (d) funding support for startup companies to bring the nanodrugs to market. The challenges in targeted drug delivery systems employing nanoparticles can be prevailed over through investigating the restraints on nanoparticle approaches and maximizing the current potential of nanoparticle formulations and devices.

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Situating Writings in English from Nagaland: A Postcolonial Reading

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Abstract

Easterine Kire and Temsula Ao are two Naga writers who could be attributed with the distinction of being the forerunners of writings in English from Nagaland. It can also be stated that it is their works that predominantly represent Nagaland

in the field of literature. In this context, the paper is an attempt to analyze and then show how they have contributed towards the formation and development of the genre, Writings in English from Nagaland. The stated objective will be achieved by following a trajectory in which it will first examine how their creative writings have managed to reach out and inspire young Naga writers through two very important mediums of communication in the contemporary context which is the English language and the creative writing. It will be done by situating Writings in English from Nagaland within the framework of postcolonial literature. In addition, through a select reading of their works it will show how literature is an important site not only for preserving but also for a reassessment of culture, tradition and history. In this way, the paper will also prove that Kire and Ao, while ensuring a rich documentation and a critical examination of the Naga way

of life and history, simultaneously manage to stir up interest and impart knowledge of the Naga people to a wide range of audience.

Keywords: English language, creative writing, documentation, postcolonial literature, Naga writers.

Introduction: Contextualizing Writings in English from Nagaland

The literary scene in Nagaland has been witnessing an interesting activity since the dawn of the current century. It is the proliferation of young Naga creative writers writing in English. The paper proposes that Easterine Kire and Temsula Ao are the inspirations behind this fascinating phenomenon along with their contemporaries, Nini Lungalung and Monalisa Changkija who have written powerful works of poetry. The reason why Kire and Ao are proposed as the main inspirations or the steady force behind the development of creative writings in English from Nagaland is because of their consistent and remarkable contributions to the world of literature and education which has won them recognition from the literary fraternity and the general public. Easterine Kire's book, *A Naga Village Remembered* (2003) is the first novel written in English from Nagaland. Her self-published book of poetry titled, *Kelhoukevira* (1982) is also the first collection of poems from Nagaland. She was awarded the Nagaland Governor's Medal for Excellence in Literature in 2011 and the Catalan PEN International Free Voice Award in 2013. She won the 2016 Hindu Literary Prize award for the novel, *When the River Sleeps* and won the Tata Book of

the Year for fiction for the novel, *Son of the Thundercloud* in 2017. Her novel, *A Terrible Matriarchy* was selected by the Government of India to be translated into six UNESCO languages. On the other hand, Temsula Ao is the first Naga woman to attain the position of a Professor from Nagaland. She won the Padma Shri Award for Literature and Education in 2007. She also won the prestigious Sahitya Akademi Award for Indian Writing in English for her collection of short stories *Laburnum for My Head* in 2013. She has received the Nagaland Governor's Award for Distinction in Literature in 2009 and the Governor's Gold Medal from the government of Meghalaya in the same year.

Hence, it is clear that these two versatile writers have brought recognition to writings in English from Nagaland within a short span of time. The mentioned accolades are just a few amongst many that have been awarded to them. Their works are studied not only at Nagaland University but in a number of universities across India. Their works have also been translated into several Indian and foreign languages. Such widespread popularity has had a positive influence on the Naga literati. A few of the prominent emerging young Naga writers were interviewed in order to understand the kind of influence Kire and Ao have had on them. When asked if Kire and Ao are the inspirations behind their interest in creative writing, Avinuo Kire¹ affirmed: "Of course! Being pioneers in the genre of Naga Literature in English, they have paved the way for younger writers who came after." (Kire Interview) Emisenla Jamir,² another writer shared how she realized that it is possible to write about one's own people and place after reading the works of Kire and Ao. She said:

I had never felt the need to write about the 'Naga experience'. But reading their works opened my eyes to the

kind of writing that I wanted to pursue. Their writings showed me the possibility of writing in English without denying my Naga heritage. (Jamir Interview)

Similarly, Neikehienuo Mepfhu-o³ also said that it was Kire and Ao who introduced her to a form of writing that she could finally relate to. She responded:

They were the first ones to introduce me to Naga landscapes and settings and people. Before them, I had read only about English landscapes and characters that I was nevertheless fascinated, but which I cannot really relate to. However, Kire and Ao have introduced a form of writing that was not just filled with familiar settings and people, but they created a world where people can relate to and live through the lives of their characters. (Mepfhu-o Interview)

An analysis of the responses shed light on an interesting aspect of what has now come to be known as *Writings in English from Nagaland*. The young Naga writers who grew up reading about foreign cultures and places admit that they did not know how to write about their own people, culture and land until Kire and Ao showed them how to weave stories around one's own tradition, history and experiences. This proves that Kire and Ao are indeed the progenitors of the genre, *Writings in English from Nagaland*. It is they who formulated a literary framework that could articulate Naga life and worldview. Hence, Kire and Ao along with their contemporaries like Lungalung and Changkija could be considered as the first-generation Naga creative writers writing in English who paved the way for young Naga creative writers. As a result, the literary terrain in Nagaland since the dawn of the current millennium is witnessing a fascinating epoch which is attested by the remarkable germination of young Naga creative writers writing in English. The seeds

sowed by Kire, Ao and their contemporaries since the last two decades of the twentieth century are bearing fruits in the form of these promising young writers.

Another interesting development that has taken place in Nagaland which has in turn led to the growth in literary output from Naga people is the establishment of publishing houses in Nagaland by writers and intellectuals. They are: Barkweaver Publication of which Easterine Kire is a founder member, Dr. Lanusangla Tzudir's, Heritage Publishing House (established in 2008) and Vishu Rita Krocha's PenThrill Publication House (established in 2013). Apart from actively discovering, mentoring and promoting young Naga writers, the most noteworthy aspect of these pioneer publishing houses is the fact that they are owned and managed by Naga women. This is certainly a significant commentary on the role of Naga women in advancing literary output from Nagaland.

The English Language and the Postcolonial Literature: A Deliberation

An important reason for the success and popularity of Kire and Ao is the medium of communication that they use. Given the contemporary cultural context, the use of English language made it easier for them to reach out to the young Nagas and to the world. In the introduction to *The Oxford Anthology of Writings from North-East India: Poetry and Essays*, Tillotoma Misra observes that most of the younger writers in the anthology wrote in English because of the English-medium education they received that made them more proficient in English language over their own mother tongues. She also predicted that the number of writers writing in English will increase because English is the official language of most of the states of North-East India and hence

more widely spoken (Introduction xv). Nagaland is the perfect case in point. The official language of Nagaland is English as there are so many tribes with their own distinct languages unintelligible to each other. Also, the pedagogy inherited since colonial times have been producing generations of Nagas who are more comfortable communicating only in the English language. Avinuo Kire explained in the interview that her education in English medium school meant reading, writing and eventually thinking and expressing herself in the English vernacular. As a result, she says it is “easier and more natural to write in English.” (Kire Interview) Another writer interviewed, Sentilong Ozukum⁴ also attributed the reason for writing in the English language to his English medium education where his mother-tongue, the Ao language, was not taught in school. In such a scenario, it is clear that usage of English language becomes inevitable and a necessary tool in the case of Nagaland. (Ozukum Interview)

The debate surrounding the usage of English by the erstwhile colonized has been an integral part of postcolonial literature. While writers like Ngugi Wa Thiong’o discontinued writing in English and advocated for the restructuring of his country’s education system, there are writers like Salman Rushdie who boldly pronounce that “English is the most powerful medium of communication in the world” and considers its popularity and a writer’s command over it as a reason for celebration (Introduction xiv). In the context of North-East writers, according to Tillotoma Misra, the usage of English language is necessary because of “the small sizes of the linguistic groups to which many of the writers belong” (Introduction xvi). At the same time, she also believes that it serves to benefit them as it paves a way to share their works with readers all over the world (Introduction xvi). Similarly, Bill Ashcroft et al. in the *Post-Colonial Studies: The Key Concepts* explains, “Many

other non-English speaking writers who have chosen to write in English do so not because their mother tongue is regarded by them as inadequate, but because the colonial language has become a useful means of expression, and one that reaches the widest possible audience” (16). However, it should be made sure that vernacular languages are also kept alive and thriving. Compared to the rest of the world and majority of India, Nagaland entered the world of written tradition only recently, it is still at its nascent stage and has just begun to explore the field of creative writing in English. If translation is encouraged and picked up by young Nagas at the same pace as creative writing is being embraced, there is hope for revival of literature and language in the vernacular amongst the Nagas. This will also further enrich production and circulation of literature from Nagaland.

No doubt English language has benefitted the writers but it is undeniable that a lot is also being lost in the process. Today there is a threat of extinction of many native languages around the world. The scenario in Nagaland is such that for many of the younger generations, their own mother tongues are unintelligible to them because they have been educated in English-medium boarding schools away from home from a very young age. Added to this is the use of Nagamese, a pidgin of the Assamese and the Hindi languages which is being widely spoken by people of Nagaland. Even the school curriculum does not actively encourage the study of vernacular languages. As a result, only Tenyidie language amongst the many Naga languages has managed to reach the required standard to be taught at higher education level. In the text, *The Ao-Naga Oral Tradition*, Temsula Ao admits, “Back home, when I started collection of data, I realized that even as a native speaker of the Ao-Naga language my knowledge about my own culture was limited and peripheral. It was so

because I represent the so-called ‘educated, urban’ fringe of the people” (Preface i-ii). The interviewed writers belong to the same section as Ao. They have been brought up in the urban towns of Nagaland and have been educated in English medium schools and universities located in the various states of India. They express their lack of proficiency in their vernacular languages with regret. There is an obvious lack of confidence in writing in one’s own mother tongue that could be deduced from the responses of the writers. This is a direct result of the current socio-cultural environment of Nagaland. T. Kreditsu⁵ in the interview said, “I can speak rudimentary Tenyidie and Sümitsa. This is something that pains me greatly. Every word I write in English is a silence added to my two mother tongues.” (Kreditsu Interview) It is a chilling reminder of Ao’s experience when as a Fulbright fellow at the University of Minnesota she attended a language class where indigenous adults were learning their own mother tongue and it dawned on her that, “these young men and women in particular and other such natives who would never fully grasp and feel their native culture due to the loss of language, which is the medium to the heart and soul of any culture” (Ao Naga i-ii).

However, writing in the English language does not mean that a writer is being untrue to one’s roots and identity. The writer should not be indicted as being unfaithful to one’s heritage. A non-English writer writing in English should not be coerced into feeling guilty because it is the combined historical and political circumstances that have made English language indispensable. At the same time, it is also important to recognise the benefit of writing in English language. Kire, Ao and the once colonised natives writing in English language is what postcolonial theory terms as appropriation. In the essay, “Replacing Language: Textual Strategies in Post-

Colonial Writing”, the writers, Bill Ashcroft et al. discuss appropriation as one of the strategies used in postcolonial writing. In *Postcolonial Studies: The Key Concepts*, the same writers explain, “By appropriating the imperial language, its discursive forms and its modes of representation, post-colonial societies are able, as things stand, to intervene more readily in the dominant discourse, to interpolate their own cultural realities, or use that dominant language to describe those realities to a wide audience of readers” (16). Kire’s and Ao’s writings achieve just that. Their narration of the Naga way of living does not fail to capture the essential nature of a Naga despite the usage of a language that is not their own. Another important feature of postcolonial writing, is abrogation which is defined as “a refusal of the categories of the imperial culture, its aesthetic, its illusory standard of normative or ‘correct’ usage, and its assumption of a traditional and fixed meaning ‘inscribed’ in the words” (37). Kire’s and Ao’s narrative seamlessly blend native words with English language. In their hands, code switching becomes a powerful tool through which they are able to document and explain words and terms to the readers which otherwise no longer find usage in the day-to-day communication even amongst the native speakers. Kire’s style of narration especially invokes the lost art of oral storytelling which is intrinsic to Naga tradition. She successfully incorporates the motif of oral narration in most of her stories to invoke a sense of the Naga oral tradition.

Naga Worldview in Perspective

The first novel from Nagaland by Easterine Kire, *A Naga Village Remembered*, presents the Naga way of life through the story of ordinary villagers. In the novel, Kire records Angami traditional practices and beliefs by weaving them around the everyday existence of the characters in order to

present their worldview. The works of Kire and Ao forces one to introspect on questions such as - What is a Naga if one forgets one's folklores especially the origin myths? What is a Naga if dreams are considered as mere manifestations of the subconscious? What is a Naga if one stops believing in the coexistence of the spiritual and the human world? At the same time, the writers encourage the readers to put their traditional practices and beliefs in perspective by writing about them in a manner that provokes readers to analyze and probe instead of passively internalizing the values that has been attached to it by their ancestors.

To highlight the Naga way of life, the historical novel, *A Naga Village Remembered* (2016) by Easterine Kire will be examined first followed by Temsula Ao's collection of poems, *Songs from the Other Life* (2007). This will be done through a close reading of the feast of merit. Kire describes the specifics of the significance of the feast, who is entitled to it, what it means for the social standing of the host, how a household prepares for and performs the ceremony is described because it was one of the most important practices throughout Naga tribes. The feast of merit is one of the Naga practices that the colonial administrators and ethnographers have uniformly recorded in their writings. In the introduction to *Naga Identities: Changing Local Cultures in the Northeast of India*, Marion Wettstein also notes, "Another unique cultural feature of the Nagas that the ethnographers meticulously documented were the cycles of rituals, especially those of the feasts of merit" (Introduction 18). Kire adds minute details with regard to the feast including one of the most important beliefs in a Naga society which is the dream. She starts the chapter in this manner: "Keviselie HAD HAD A dream. It was good, very good. He had dreamt of the short-tailed *gwi*, and in the morning he took it as an indicator of the creator's willingness

for him to earn a title” (37). In a clear-cut manner, Kire introduces the significant place that dreams hold in a Naga’s life and how dreams are interpreted. A few months back the village elders had observed that Keviselie should host a feast of merit because he has been blessed with excellent harvests. He had been considering the suggestion in his mind but it was the dream that confirmed the observation made by the elders. He had dreamt about the short-tailed *gwi* which is the *bos frontalis*, or commonly known as *mithun*. The interpretation was made on the basis of the *gwi*’s association with prestige amongst the Nagas which is a belief that is upheld till date and so it is accepted as a clear indication from the spirits to acknowledge their blessings by holding a feast of merit. In an interesting manner Kire explains the rituals involved in the feast of merit step by step. After Keviselie was convinced that the spirits wanted him to hold a feast of merit, he goes to meet the priests seeking for their advice. They guide him with instructions about his role and the role of two priests to be carried out during the festival of *Terhunyi*, which is a festival that is celebrated to praise the creator after harvest is completed and brought in. Kire then makes a step-by-step elucidation of how the various rituals are performed and observed. First, the ritual of *phichu pehei* which is blessing of the feast giver’s household is performed and then Pushu day is observed five days before the blessing by the elders. On this day the wife prepares meal for a Thepa and a Thevo clansmen in order to “initiate her husband’s title taking ceremony” (39). She then goes on to describe the duties of these two men, the observation of *genna* day to sanctify the brew, sacrifice of a chicken and performance of the ceremony by the husband and wife in minutiae. Only after all the rituals were observed through the guidance of the priests and through the assistance of friends and family, “Keviselie was able to

feast the whole clan at his sha, the feast of merit” (45). Thus, by incorporating the feast of merit in the story, Kire is able to explain the meanings behind tradition and belief systems while at the same time successfully documenting it. It also points out an important aspect of the Naga way of life which is communal living - feasting with the entire clan and village, inviting all relatives including those living in different villages during special ceremonies, distribution of portions of meat amongst friends and kinsmen, gift giving amongst friends and friendship between men. Thus, sharing, merry making and friendship across clans, villages and tribes defines the Naga world.

Secondly, Temsula Ao’s collection of poems, *Songs from the Other Life* (2007) which is based on myths and legends that have been passed on from generation to generation through word of mouth will be examined. Through the poems in the collection, Ao shows how folklore is not just distant stories composed out of pure imagination but by retelling it she shows that it is lived everyday by the Ao people. In the poem, “The Old-Storyteller” from the mentioned collection, she explains the motivation that drives her to write. She says:

Grandfather constantly warned
That forgetting the stories
Would be catastrophic
We could lose our history,
Territory, and most certainly
Our intrinsic identity.

So I told stories
As my racial responsibility
To instill in the young
The art of perpetuating

Existential history and essential tradition
To be passed on to the next generation. (241)

However, the poet notices that young people including her grandson are no longer interested in listening to stories. The poet laments the loss of an important tradition which is that of passing on history in the form of folklore through word of mouth from one generation to another. The poet is deprived of the rich legacy, the privilege and pleasure of imparting knowledge as was done in the olden days. Her grandson's refusal to listen to her stories is seen as a threat and a possible repetition of history because according to Ao-Naga legend their ancestors had their script written on an animal hide (240) but a dog managed to devour it and their script was lost forever. All these reasons enrage the poet and fills her with the desire "To wrench the thieving guts /Out of that Original Dog / And consign all my stories/ To the script in his ancient entrails" (242).

In "A Tiger-Woman's Prayer", Ao takes up one of the most common beliefs amongst the Naga tribes. Kire has also referred to this legend in many of her stories. In fact, the novella, *Don't Run, My Love* (2017) is about the legend of *tekhumevimia*. In the story, Pfenue explains to her daughter that a *tekhumevimia* is both man and tiger. She says, "They have a foot each in both worlds...they say that the man is the body and the tiger is the soul. Some say they can interchange at will" (92-93). In the poem, Temsula Ao presents the predicament of a woman who has inherited the tiger spirit. It shows that the inheritor has no choice "Since grandfather's tiger-soul/Came un-bidden to take control." She pleads, the "powers above" to "Pity my human plight/And enable me, just this once /To renounce these/Other selves" (249). Through this poem Ao is able to present the feelings of the human who is not thrilled to

inherit such a legacy because she desires to live a normal life. The poet brings to attention how the human aspect of the one who has inherited the tiger spirit is carelessly disregarded as people focus only in the mystery that surround such stories. It is a reminder to the readers or more specifically the Nagas who believe in the existence of such people amongst them even today to have empathy.

In continuation with the theme of reassessment of culture and tradition, another interesting poem in the collection is “Trophies” which is based on the famous Naga tradition of head hunting. The Naga forefathers placed great honour and prestige on the head takers who were elevated to the status of heroes. In this poem, Ao presents a new perspective, “In words of new/ Discernment/ To augment the lore/ Of our essential core” (239). It is the women’s side of story which has always been neglected in the process of glorification of hero warriors that she gives a voice to:

‘You may rejoice over your bloody trophies
But enemy heads will never fill
My child’s empty belly,
Nor quench my need for a body
Untainted by another’s blood...
And if you do not heed me
I may soon return to my parents
A widow and your son
The orphan of an irresponsible father.’ (286)

Through this poem, Ao again manages to make Naga people think beyond the legends and blind glorification associated with their warrior ancestors and their macho heritage. She makes the readers realize that there is another aspect to the history of Naga head hunters which is the real lived experience of the people like the wife of a warrior who

had to deal with everyday issues of survival like feeding hungry children, taking care of aged parents while at the same time worrying for the life of her warrior husband.

Thus, by placing the Naga people and their worldview at the center, Kire and Ao introduces readers to a new genre of writing which is the Writings in English from Nagaland. At the same time, their handling of themes based on Naga history, tradition and culture is clearly not of glorification and romanticization. In fact, their narratives could be described as one that opens up opportunities to the readers, especially the Naga readers to engage in critical and healthy discourse around one's own culture and tradition which otherwise is impermissible in most of the Naga communities.

Conclusion: Creative Writing as a Medium for Documentation and a Mode of Dissemination

It could be concluded that Writings in English from Nagaland was birthed and nurtured by Easterine Kire and Temsula Ao, two women writers from Nagaland. At the same time, they also used creative writing as an important site for preservation as is seen throughout their works where they ensure a rich documentation of Naga tradition, culture, folklore and history. Their works encourage critical examination, interrogation and interpretation of various historical events as well as the intricacies of traditional practices that define a Naga instead of blindly commemorating and upholding them. It is these features that lend Writings in English from Nagaland its distinctiveness. The same, if written in the form of non-fiction for pure academic purpose would be limited only to scholars and fail to generate and sustain interest amongst all types of readers. In addition, by writing in English they have managed to reach out to a wide range of audience and with

their works being translated not only into Indian languages but also into several foreign languages, stories about the people of Nagaland have found vast readership. Thus, by writing in the English language, Kire and Ao manage to use the most powerful tool of subversion in postcolonial literature effectively, and by foregrounding Naga way of life in their writings, successfully place the decentered native back into the center which is the fundamental aim of postcolonialism.

Notes

1. Avinuo Kire is the author of *The Power to Forgive and Other Stories* (Zubaan, 2015), *Where Wildflowers Grow* (Barkweaver Publications, 2015), *The Last Light of Glory Days: Stories from Nagaland* (Speaking Tiger, 2021) and coauthored *Naga Heritage Centre Peoples Stories: Volume One* (PenThrill Publication House, 2016). She has also contributed to the anthology, *The Many That I Am* (Zubaan, 2019).
2. Emisenla Jamir has authored an anthology of poetry, *Loneliness is an Orange* (Barkweaver Publications, 2018). She has contributed her writings to *Raconteurs from the Hills* (PenThrill Publication House, 2014), *The Many That I Am* (Zubaan, 2019) and *Woven Words* (Heritage Publishing House, 2017).
3. Neikehienuo Mepfhu-o has written a collection of short stories, *My Mother's Daughter* (Heritage Publishing House, 2019) and contributed to the anthology, *The Many That I Am* (Zubaan, 2019).

4. Sentilong Ozukum is the author of *Campus Blues: Love, Friendship and Beyond* (Heritage Publishing House, 2010), *Sincerely Yours* (Heritage Publishing House, 2017), *Dreams & Chaos* (Heritage Publishing House, 2020) and *The Case of Longti Village* (Bookipedia Publications, 2021).
5. T. Kreditsu is a poet. Her publications include two anthologies of poetry, *Sopfünüo* (Heritage Publishing House, 2018) and *Wake* (PenThrill Publication House, 2019). She has contributed poems to *Woven Words* (Heritage Publishing House, 2017) and *The Many That I Am* (Zubaan, 2019).

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Students' Perspective on Online Teaching-Learning System: A Case Study of Dimapur Government College

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Abstract

The Covid-19 pandemic severely impacted the educational sector, where schools, colleges and universities had to adapt to an alternative mode of teaching-learning system. This shift in teaching-learning method posed new challenges to those involved in the educational field where both teachers and learners had to acquaint and familiarise themselves with digital and online teaching-learning system. Hence, this study

was carried out with the objective to assess the overall experience of students with online teaching-learning system. The study was carried out in Dimapur Government College (DGC) amongst 4th and 6th semester students. The common platform used for the online classes in DGC was Google classroom, Google meet and WhatsApp. The study found that online classes played a crucial role during the pandemic and it also gave them the advantage of a more casual and flexible approach to learning. However, its potency is less effective

than the conventional mode of classroom teaching-learning. The survey also found out that the major challenges faced during the online classes was poor network connectivity, lack of face-to-face interaction, reduced motivation to learn and inability to focus.

Keywords: Covid-19, pandemic, online classes, connectivity.

Introduction

The Covid-19 has seen the closure of schools and colleges globally. It has created the largest disruption of education in history, affecting nearly 1.6 billion students across the world (Guterres, 2020). The impact of the Covid-19 has brought about huge changes, affecting all aspects of life and forcing people to accept and adapt to a new mode of functioning in their daily lives and a new mode of learning.

Due to the Covid-19 pandemic, a sudden change took place from the classroom setting to online learning and this brings up the possibility that the global education system will be permanently impacted by the pandemic (Li and Lalani, 2020).

Conversely, this new mode of learning with advancement in technology has also made learning more simple, interesting and engaging besides making it more convenient for the exchange of views and communication between teachers and students.

Teachers have been able to keep a tab on students' submission of assignments. Students have had the opportunity to become more independent learners besides giving them the

opportunity to learn new apps and platforms and develop their technological skills through the use of online platforms like Zoom, Google meet, Google classrooms, Microsoft teams, etc.

Some other advantages of online education are that the students can watch videos or go through materials as per their requirements. Students have the advantage of being able to take class wherever they are, and even in inclement weather, they can stay in the comfort of their homes. Learning new technology has made lessons fun and interesting whereas it would have been tedious in a physical classroom setting. Students can learn the latest technology and access learning.

Online learning has played a very important role during the lockdown but there are various setbacks such as the difficulty of availing smart phones and laptops especially by the underprivileged. In Bhutan, many learners are from villages and the students were occupied with helping with household chores and in fieldwork and as a result it was found to be difficult to keep up with the lessons. With the lockdown many families were economically affected and this made it difficult to acquire the needed devices and it was also difficult to acquire the needed data packs due to inflated prices (Pokhrel and Chetri, 2021).

Internet connectivity, particularly in less developed and remote regions, is one major issue which hampers online learning as many do not have access to adequate internet connections. Besides, there is also the problem of retention of student's attention as many students get distracted by the numerous activities available on screen. To avoid this lack of focus, teachers have also made immense efforts to design their online classes in a way as to be able to engage the attention of the students and make it interesting as there

are many distractions. Face to face classroom interaction offers the advantages of providing a stable environment and helping students, especially those in their formative years, with developing social skills and qualities of empathy and cooperation, helping them to develop the ability to handle real-life situations (Prakash, 2021).

However, there are also negative factors such as abuse of the internet whereby the students can access wrong things on the net instead of studying. Moreover, due to the lack of physical contact between the teacher and student, there arises a gap in communication and also doubts cannot be immediately clarified by the teacher. Online education also affects the physical health to some extent as students have to sit for six to eight hours in front of their mobiles and laptops and this can especially affect their eyesight. Furthermore, the freedom to access the numerous activities on the internet becomes a source of distraction for them (Devi, 2021).

The role of parents and teachers is important in this situation and both offline classes and online learning work together. Ultimately education will become hybrid technology as it has blended in with academics. This new system of education has helped teachers and students to develop new abilities and skills but it cannot take the place of offline learning (Prakash, 2021).

In India, educational institutions also made a shift to online teaching soon after the Government imposed nationwide lockdown from 25th March, 2020. However, since online learning has never been taken up on such a large scale in India, it is like a massive social experiment (Muthuprasad, et. al., 2020).

When it comes to being motivation, satisfaction and having interaction, there is no comparison between the

online mode and offline mode of learning because there is a huge difference in the environment of learning in a physical classroom situation as compared to an online class (Bignoux and Sund, 2018). How students perceive online learning is of great importance because if they have a negative attitude towards online learning then it leads to loss of motivation and lack of persistence (Kauffman, 2015).

Objective of the Study

The objective of the study is to assess the experience and response of students to online teaching-learning system.

Study Area

This study has been conducted in Dimapur Government College, Dimapur, Nagaland covering the 4th and 6th semester students. It is affiliated to the Nagaland University and follows the curriculum prescribed by the University. Dimapur Government College offers three-year Degree Honours and General courses in Arts and Commerce. Under Arts Stream, Honours courses in Economics, Education, English, History, Philosophy, Political Science and Sociology are offered. Under Commerce Stream, Honours in Accountancy & Finance and Management are offered.

The College is Accredited as 'B' grade by NAAC on 15.11.2015 and is recognized under section 2 (f) and 12 (B) of the UGC Act, 1956. Located in Oriental Colony under the Dimapur Municipal Council area sprawling over a campus area of 44,154 sq. mtrs. The College has 57 teaching faculty, 58 non-teaching staff and 1 technical staff with 1403 students enrolled in the current semester, i.e., 2021-22 even semester.

Methodology

The present study is based on primary data collected using structured questionnaires during 2022. For the survey, 370 undergraduate students of 4th and 6th semester of Dimapur Government College were randomly selected without replacement using convenient sampling technique. The universe consists of 891 students with 326 males and 565 females. The reason for selecting the 4th and 6th semester students is because they were the students who had first been introduced to online classes and continued in the online mode of learning for two consecutive semesters.

The data collected are tabulated showing percentage distributions of the respondents and appropriate diagrams are used to portray the results.

Findings and discussions

i) Students' response to whether they enjoyed/liked online classes

It was found that the overall response of the students as to whether they enjoyed online classes was that 33.25 per cent enjoyed/liked while 65 per cent did not enjoy and 1.76 per cent could not decide.

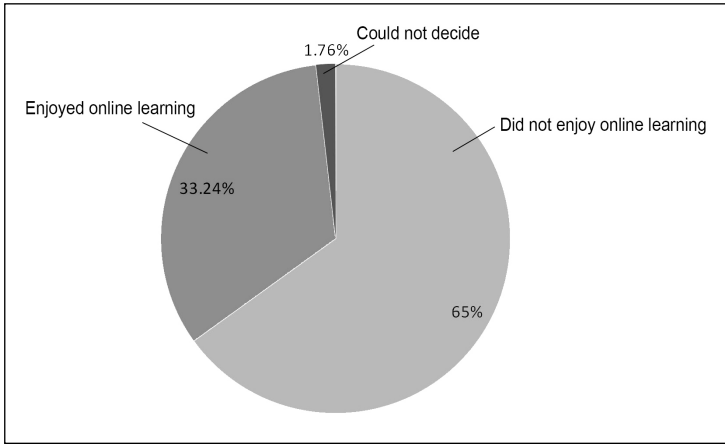
Table 1: Distribution of respondents on response to online learning

Questions	No. of response
Enjoyed online learning	123 (33.24%)
Did not enjoy online learning	240 (65%)
Could not decide	7 (1.76%)

Source: Field survey, 2022

Note: The figure in the brackets indicate percentage.

Fig. 1: Students response to whether they enjoyed online classes



Source: Field survey, 2022

ii) Reasons for not enjoying online learning

Based on the data collected from the respondents who did not enjoy online learning (65 per cent of the total respondents), a large majority (73 per cent) cited due to poor network as the main reason, while 19 per cent opined that it was due to lack of proper gadgets (phone/laptop) and 8 per cent due to both poor network and lack of proper gadgets.

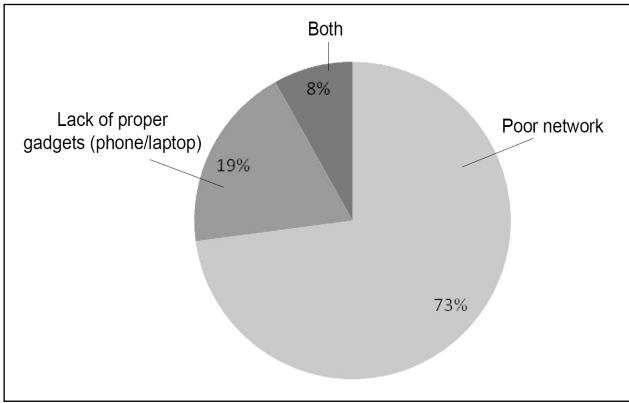
Table No 2: Reasons for not enjoying online class

Reasons	No. of response
Poor network	270 (73%)
Lack of proper gadgets	70 (19%)
Both	30 (8%)

Source: Field survey, 2022

Note: The figure in the brackets indicate percentage.

Fig. 2: Students’ response to why they did not enjoy online learning



Source: Field survey, 2022

iii) Students’ response to whether online classes were effective in their learning process.

The following table summarizes the response of the students to various questions which give an overall picture of their assessment of the online learning experience.

Table 3: Percentage Distribution of Respondents on various Questions

Questions	Response in percentage	
	Yes	No
1. Did you regularly attend class	62.16%	37.84%
2. Did you feel motivated to learn	11.08%	88.91%
3. Face-to-face interaction is necessary in the learning process	82.97%	17.03%
4. Do you think ability to focus attention was affected	73.95%	26.05%
5. Online class helped in saving time to study	57.57%	42.43%
6. Were you able to complete assignments on time	82.43%	17.57%
7. Online class affected home/family life	21.35%	78.65%
8. Home environment affected online class	32.97%	67.03%
9. Parents/ guardians were comfortable with online classes	36.22%	63.78%
10. Do you prefer online classes	24.06%	75.94%

Source: Field survey, 2022

During the pandemic, online classes played a crucial role and it appears that the students adapted quickly to the new situation of online learning, but there are consequences which cannot be ignored. Online classes gave opportunity to the students for a more casual and flexible approach to learning. It made it easier for them to access their notes and submit their assignments on time. It also helped in saving time and money which would have otherwise been spent on commuting.

Several questions were posed to the students in the questionnaire.

- i) As to the query regarding whether they had regularly attended classes, 62.16 per cent answered in the affirmative.
- ii) Regarding the motivation to learn and whether classroom interaction was important for learning, students felt less motivation to learn unlike in a classroom setting, where they are under the direct supervision of the teachers and are able to interact with their classmates. Classroom interaction was mentioned as a key element in helping them in their learning process as they were able to clear up their doubts and enhance their knowledge.
- iii) When stating about their ability to focus, 73.95 per cent of the students mentioned that their ability to focus during the online class was affected due to the plethora of activities that are abundantly available online such as chatting with friends, playing games, watching videos, etc.
- iv) With regards to managing time for academics, 57.57 per cent stated that online classes gave them more time to study and 82.43 per cent said they were able to complete their assignments in time.
- v) Regarding the impact of family environment on online classes and vice versa, 32.97 per cent stated that the home

environment negatively affected online classes. Students stated that home and family situation affected their online classes because of family expectation to carry out and fulfill domestic responsibilities as well as distractions from neighbours, guests and other surrounding noises, 21.35 per cent stated that the online classes affected family life because online teaching-learning system requires digital devices which are a source of stress on students with limited financial resources. There is pressing need for digital resources in order to access academic and educational information. Out of total respondents, 63.78 per cent students mentioned that the parents/guardians were not comfortable with online classes because for online classes since digital devices are imperative and sometimes in one particular family, if all the children have online classes simultaneously, then gadgets have to be provided to each child. Besides that, the home environment gets affected because favorable environment has to be maintained at home during the online classes.

Online education also affects the physical health to some extent as students have to sit for six to eight hours in front of their mobile phones and laptops and this can especially affect their eyesight. This was mentioned by a handful of students.

Students also felt that online assessments did not give a true picture of a student's performance and ability because online classes opened up a lot of avenues for unfair means especially during the exams. This was one point in particular where some students felt that they were cheated of a fair assessment and so felt greatly de-motivated to perform to the best of their ability.

Overall, the main issues that cause problems in online learning are access to information (network) and affordable digital devices.

The NEP 2020 envisages 40 per cent of enrollment in Higher Education through ODL (Open Distance Learning) by the year 2030. At present, the current mode of conducting online classes is limited to platforms like Google meet, Google classroom and WhatsApp. Especially in the hilly areas, network is not only poor but is very unstable and unpredictable due to fluctuations and this greatly hampers the online teaching-learning process. In keeping with the need for innovative teaching methods due to the onset of the pandemic, the educational system is being revamped to suit the online learning experience with the creation and introduction of MOOCS (Massive Open Online Courses). This is a pressing need of the hour so that institutions, such as Dimapur Government College, are equipped to provide teachers and students with the right training and system/infrastructure in order to provide quality education via such teaching-learning systems.

Conclusion

Based on the findings, it may be concluded that online classes play a limited role in the teaching learning process and with respect to Dimapur Government College, the main problems being the network connectivity and the lack of interaction with teachers and others in a classroom setting which leads to lack of focus and decreased motivation. In the future, online learning may become as or more effective than offline classes depending on the infrastructure developed in the college to equip and support teachers and students in the teaching learning process.

Learning effectively depends on organizing and selecting the content with expertise and in understanding the problems and limitations faced by the students and addressing the issues

which place a constraint on their learning capacity. Usage of digital devices and internet is a key factor which requires technical proficiency in the teaching-learning process which ultimately determines the effectiveness of online classes. In view of the fact that the online mode of learning has now assumed as an important aspect in teaching-learning system. Hence, both students and teachers need to prepare themselves with the new methods of online learning mechanism. Also, it is imperative that the institution should take all necessary and possible steps to develop the infrastructure to equip and support teachers and students for online teaching-learning process in future.

Suggestions

1. Adequate preparation/training for teachers and students on the use of Interactive Communication Tools (ICT).
2. Infrastructural expansion, both hardware and software are needed to facilitate online teaching-learning.
3. Selection of syllabus or content adequate to and feasible for online teaching-learning and deploying engaging features of virtual learning.
4. Dedicated approach between students and teachers and development of self-regulated learning among students.
5. Promote institutional and parental co-operation in order to encourage parents to provide the needed parental-emotional support to maximize learning outcomes.
6. Efforts to be made by the government and universities to incorporate online tools effectively and come up with effective policy interventions.

Limitations of the study

The present study has certain limitations:

1. The survey has been conducted in only 1 college and so it has limited data. A similar cross-sectional study covering more colleges might be able to give more comprehensive results.
2. The survey conducted could examine only limited issues on the subject. A more detailed survey covering other related issues could provide a better understanding of the online system.
3. With regard to analysis, the present study employs only simple statistical tools such as tables and diagrams, and calculation of percentages. Use of other statistical tools like correlation, regression, T-test, etc. would provide a more in-depth analysis and understanding.

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A Changing Cultural Glimpse of Rais Community in Sikkim

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Abstract

This paper provides an opportunity to consider the cultural aspects of Rai community in Sikkim. Rais are not a single community but rather a collection of clans which exhibit different culture within themselves. They are Animist and Naturist within a Hindu fold. However, they

are getting influenced by the culture of different States on one hand and religious conversion on the other. Therefore, the main objective of this paper is to explore the changing cultural patterns and how the society addresses their newly emerging cultural values according to social structure in their time frame. The Constructivists approach of G.H. Mead and Emile Durkheim will be employed to understand the various institutions like Family, Marriage, Religion and occupational structure that underwent change due to modernization and diffusion of other cultures.

Keywords: Samkhalung, animists, mangpa, enculturation, sorarate, levirate, patriarchy, patrilocal and patrilineal.

Introduction

The Constructivist approach to culture, Peter L. Berger and Thomas Luckmann,¹ and Emile Durkheim has been employed to gain the Subjective understand about the Rais community of Sikkim. They emphasized that human being creates system of meaning and ideologies that they then experienced as “objective” and when the social roles are made available to other members of society to enter into and play out, the reciprocal interactions are said to be institutionalized. Emile Durkheim’s approach was employed to understand the various institutions like Family, Marriage, Religion and occupational structure underdone change due to modernization and diffusions of others cultures.

Literature Review

The traditional homeland of Rai extends across Solukhumbu, Okhaldunga in Nepal. Rais are also known as Khambu because traditionally they used to live in Khambuan region of Nepal. The “Rai” is a title given by the King Prithvi Narayan Shah to those who were chiefs ruling small estates until the political unification of Nepal in 1769 (Hermanns, 1954).

He appointed local ‘Rai’ or ‘chief’ to act as intermediaries between them and the state. Rais are not a single tribe but rather a collection of tribes, exhibiting among themselves difference in language, culture and social organization although they do share a common culture base and have similar social structure. The Rais do not follow any religion in the strict sense of

¹ Peter Berger and Thomas Luckmann wrote a book “The Construction of Reality”. This argued that society is created by human interaction, which they called habitualization.

term. They are “animist” and nature worshippers. In fact, it is not religion in the straight sense of term, because there is no concept of God. The main festivals of Rais are Sakewa and Sakewa. These festivals are mainly performed for good rain, sunshine, good harvest and for good health, peace and prosperity for all the villagers. Rais engages Mangpa² (Rais Priest) in their religious rites (Dougal, 1979).

The Mangpa plays an important role in their entire life circles, sickness of a person is closely associated with ancestors’ spirits. Rais believed that they fall sick because their ancestors were displeased. The Mangpa perform religious rites for the well being of the family members and also prophesy the future happenings for the family and the society and also perform the last rite of the deceased individuals, and perform soul journeys and handover the souls of the deceased person to the ancestors and also performs minor religious rites and cures the sick. He chants the spell to ward off the affected evil spirits or the diseases of the sick person and use wild herbs as medicines. The main shrine of Rai is called Samkhalung³ every item produced from the land has to be ceremoniously offered to the ancestors at Samkhalung. Only after such offering one is entitled to eat and drink the items (Rai, 2005).

Geographically Rais are spread in the areas of North East India including Assam, Orissa, Nepal, Sikkim and Burma and also in different parts of the North West India. The Rai people are divided into many different sub-groups such as - Bantawa, Chamling, Sampang, Dumi, Jerung, Kulung,

² Mangpas means Rais communities Religious Priest called shamans.

³ Samkhalung (sacred kitchen) having three stones where all the important religious rites are conducted. It is the peculiar and symbolic identification among them. The believed that all soul of dead Raipas and Raimas (forefather and foremother ancestors) dwell here, where the ancestors are worshipped. Only clan members are allowed to go near it.

Khaling, Lohorung, Mewahang, Rakhali, Thulung, Tamla, Tilung, Wambule, Yakkha and Yamphu. Sumnima-Paruhang is worshipped as primordial parents. They are divided into many different sub-groups. Hunting, fishing, weaving, gathering of wild fruits, agriculture, animal husbandry, army and tea plantation were the main traditional occupation. They have twenty three different dialects of which Bantawa dialect has been officially agreed as a common official Kirat Khambu Rai language (Singh, 1990).

Concept of Culture

According to E.B. Tylor, “Culture is defined as “that complex whole which includes knowledge, belief, art, law, morals, customs, and any other capabilities and habits acquired by man as a member of society.” MacIver and Page, “Culture is the expression of our nature in our modes of living and our thinking, intercourse, in our literature, in religion, in recreation, and enjoyment. Malinowski, “Culture is handiwork of man and the medium through which he achieves his ends. Culture has two components: material and non-material culture. Material culture is similar to civilization, which consists of all the physical objects or artifacts of human beings create like clothing, schools, factories, cities, books etc. Non-material culture on the other hand consists of more abstract elements like language, values, beliefs, family, and patterns, political system etc. As a scientific term, culture refers to all the features of a society’s ways of life: e.g. modes of productions, routine habits, food preferences, the architecture of houses and public building, the layout of fields and farms; and systems of education, government, law, etc. It is through the socialization process that a person acquires a cultural knowledge. In anthropology, this process is called enculturation.

Objective of the Research

- i) To study the changing cultural values in the social structure in contemporary setting (family, marriage, kinship, occupational structure and religious institution among Rais community).
- ii) To explore the impact of religious changes (conversion) among the Rais of Sikkim.

Identification of Research Problem

A lot of study has been done on the Rais of Sikkim focussing on their culture and I felt that there is a lot of gap because there is no authentic work when it comes to analyze the culture and the identity of Rai community. Therefore I propose to study the cultures in contemporary settings.

Methodology and Area of Research

Methodology is a procedure for obtaining knowledge based on empirical observation and logical reasoning. Methodology is logic of scientific investigation. It means description, explanation and justification of methodology themselves (Ram, 2003). The study was undertaken at Chemchey village which is 19 kms away from Namchi Bazaar and Neez Goan which is 20 kms away from the Jorthang Bazaar in South Sikkim. This village had the maximum Rais population and this was considered an ideal choice for providing homogeneous culture settings. Total 150 samples are collected for research. Both Qualitative and Quantitative method, open and close ended questionnaire, and Participant observation were employed to understand the meaning of actions, defining situations and the process that responded construct the situation through their interaction process, and for seeking additional information Interview method was used because the information received

from the respondents provides deep insights regarding their age-old rituals, values and practices in their society.

Findings and Discussion

1. Changing Cultural Patterns and Societies' Response Towards It: Field View

Many sociologists have defined social change as inevitable. Modernizations helps in bringing the changes in human interactions and relationships that transform culture and social institutions. It involves alteration of the social order of a society and changes in all areas of human thought and activity. The cultural change among Rais community of Sikkim can be observed in terms of change in religious values, attitudes, ideas, beliefs of individuals and is the result of multi-factorial process like spread of education, process of urbanization, occupational mobility and frequent contact with other native cultural groups.

As Constructivists (Durkheim and Mead) strongly believed that society and cultural are interconnected and interrelated thus, any change in the culture values and beliefs bring a corresponding change in the whole social order in a society. In this connection the traditional Rais community was based on joint family structure sharing joint property, common kitchen, common worship, close blood ties and absolute power of the head of the family. The Rai families are Patriarchal, Patrilocal and Patrilineal in nature.⁴ But with the modernization⁵ joint

⁴ Patriarchy system is a system in which the father or a elder male has absolute authority over the family. Patrilineal is a system in which children trace their decent from their father line and patrilocal residence is structured by a rule that a man remains in his father's house and brings his wife to live his family after marriage.

⁵ Modernization in sociology defines the transformation from a traditional, rural to modern, urban and advanced society. It may include high-speed computer, modern outlook, rational society, use of modern technology.

family system is gradually disintegrating, as earlier rural joint family was the unit of both production and consumption. But with modern economic system the family no longer functions as a unit of production. Nowadays, Rais community prefers nuclear family rather than joint family and one of the major reasons for the disintegration of joint family was the attitude of the older generation imposing their views and thoughts on the younger generation giving rise to feeling of discontentment and unhappiness. Living under same roof does not have personal space. Thus, the nuclear family will give an opportunity to become positive liberal to become more responsible members of the society. As far as intrapersonal relation is concerned avoidance relationships are maintained between mother-in-law and son-in-law, daughter-in-law and father-in-law, sister-in-law and elder-brother-in-law. A free relationship exists between younger sisters-in-law and younger brother-in-law, grandparents and grandchildren. Boys are still considered as economic assets and a lot of parental aspirations rest on them.

Two main forms of kinships⁶ are found, firstly, Relationship based on blood relationships; secondly, Relationships created by the bond of marriages. Kinship behavior varies based on the nature of the kin. For instance, father, mother, in-laws uncle and aunt are highly respected but relationships with Sali-bhena are in joking relation among Rais culture. As slowly due to occupational mobility, out migration of people for higher educational purpose, emergence of nuclear families resulting to the dissolving of kinship ties, the new direction of socialization process children's, change in terms of mate selection, freedom of choices, change in the process of rituals celebrations has also been affected by the secularization found in these villages.

⁶ Kinship is the human relationships and is based on the ties of blood, marriage or adoption.

Marriage is an important social institution. It is the relationship, which is socially approved by the society though sanctioned by custom and law. Traditionally, Chori Biha,⁷ arranged marriage, Zari Biha or marriage by paying penalty⁸ was a common phenomenon among Rais community of Sikkim. But nowadays such marriages is gradually being replaced by the love marriage in which the concerned boy and girl spend some time to know each other then they can either decide to marry or not depending on how far the two parties like or dislike each other.

There is no dowry system among Rais community. Traditional marriage systems like Sororate and Levirate marriage⁹ among Rais community has been replaced by modern love or elopement forms of marriage but marriage with outside caste (Scheduled Caste) is strictly prohibited as since ages, ancestors had made the system rigid, violators can be ostracized by the family and community as well. But nowadays factors like educational development, involvement of women in economic activities outside household and technological development (mobile, Facebook, computer etc.) has brought several new challenges to the family and other institutions as well.

⁷ Chori Biha means when a man takes a women away from her home secretly without informing her parents, is called theft marriage. In this case the man may like the women all of a sudden, which the woman may not be noticing. All of a sudden the man wishes to marry her when he meets her on some occasion or gathering like fairs and market place.

⁸ Zari Biha is a process of taking the wife of another man in her consent for the purpose of marriage; in such case certain amount of cash is paid as a penalty by the women's new husband to the earlier one.

⁹ Sororate marriage is a type of marriage in which a husband engages in marriage with the sister of his wife after the death of his wife. Whereas Levirate marriage is a type of marriage in which the brother of a deceased man is obligated to marry his brother's widow.

The Rais followed the traditional ways of economic system which was based on the customs, and time to time honor beliefs. They follow subsistence economy by using traditional tools, based on rain water harvesting and produce for their own consumption. But now their agro-based production has reached the market as a result of advancement in transportation facilities, the Rais of Sikkim supply their produce at the local and regional levels.

The villagers derive their major source of income from agriculture. Labour in both the surveyed villages was classified into three categories – household labour, wage labour and exchanged labour. The school going children participate in less laborious work like weeding, plucking and transplanting during their holidays. Seasonally, wage labour is employed even from outside their family and other communities.

2. Religion and Conversion

As Constructivist (Luckmann, Mead and Durkheim) said that human being is capable of producing reality. People construct reality through the process of Externalization, Objectification and Socialization. Individuals in a society can adapt the new culture and adaptation is the dynamic process by which individuals socialize them to unfamiliar and new emerging cultural attributes in the existing social structures of a society. This process is possible through Enculturation,¹⁰ Acculturation¹¹ and finally Assimilation.¹² In this process the dominant cultural traits get transformed

¹⁰ Enculturation is the process by which the individual learns the traditional content of a culture and assimilate its practices and values.

¹¹ Acculturation has different meaning in this context refer to replacement of the traits of one culture with those of other which refer to adaptation of a different culture by an individual.

¹² Assimilation is the process whereby individuals of differing ethnic heritage are absorbed into the dominant culture of a society.

due to the frequent interaction and assimilation of the new culture. New cultural embrace resulted in social change and institutional differentiation. As societies grow, more scientific tendency such as urbanization, increase in mobility, caste free occupational opportunities are created in towns that lead to the creation of new patterns of culture, this process more over to enhance the society's adoptive capacity to accomplished task necessary for its survival. Originally the Rais of Sikkim were neither Hindu nor Buddhist. They follow the religion of Animism¹³ and are nature worshippers. Shamanism and Samkhalung are the oldest religion among Rais. Earlier Shamans (priest) enjoyed high social status, were respected and considered to be the healer and a connector between God and human beings, but now they no longer obtain similar high status like before because today people have become more aware of the contemporary needs of the society and are more career-oriented, as their economic compulsion compel them to work outside.

The present Rais culture, religion and rituals have undergone several changes such as meat and blood offering to the Samkhalung which were central element in the earlier rituals have now been substituted by fruits and flowers. Earlier the deities were pleased by offering of animal sacrifices and alcohol but now offering of blood and alcoholic beverages to the deities are avoided, because Rais consider that pouring of animal blood to the altar is the most polluted and unholy practice. Therefore, there is a massive paradigm shift in the traditional knowledge and practices. Such changes brought about many drawbacks in the age-old practices that initially gave meaning and identity to their culture. These changes are

¹³ Religion of animist, the ancestor worshippers who believed that the sole exist even after the death and this soul need to be protecting in the hearth (three erect stone Samkhalung).

also grounded in financial burden for many of the household, hence economic perspective has a vital function. This is one of the reasons why the culture is changing.

Rais of Chemchey village and Neez Goan were converted into three different faiths, they are-

- i) The Rais who have converted to heavenly path religion and Christianity, they both stopped practicing traditional Rais Shamanist culture and they have shifted their faith from Shamanisms to self healer.
- ii) The Rais who still follow Hinduism and Shamanisms, but do not prefer animal sacrifices to the Samkhalung instead they offer fruits and milk.

The underlying reason for their conversion to Christianity was for the sake of avoiding illness and to escape from the practice of untouchability which has driven the stronghold of it from traditional Hinduism and in Christianity there is no such notion of untouchability, purity and pollutions. Rais rituals such as birth, marriages, funerals and others minor religious rites are very expensive which cause family to be in debt. Therefore, because of the economic considerations majority had converted to other religion. Converted Rais had completely stopped participating in traditional Rais culture leading to a clear separation from the naturist Rai and Hindu Rai but these religious boundaries were socially constructed through the process of assimilation and enculturation of the new cultural values and practices, now it has become their normal lifestyles. Thus this is the process of construction and reconstruction of their identity and culture. But many of the non-converted elderly respondents still do follow the traditional Rais cultures and still believe in Shamanism. This is how they are constructing and giving meaning for their

existence and newly emerging culture and religion. Thus, Rais community is adjusting or existing between the tradition and modernity.

Berry (1992) and Redfield et. al (1936) have demonstrated that life's goal is to adjust to varying degrees to our surrounding to overcome struggle and change oneself. They believed that every individual have the capacity to adopt new environmental challenges and can construct the social meanings for the human survival. When it comes to the Rais community of Sikkim, they are dwindling between the phases of change in their age-old cultural practices and the new ongoing cultural practices in society. The Rais of Chemchey village and Neez Goan have experienced the cultural fusion between the modern and traditional ethics in relation to joint and nuclear family systems, changing marriage values like intra-caste marriages, love marriage, process of selection of mates in connection with modernity.

Emile Durkheim identified economic growth such as increase in population, urbanization, and industrialization, advancement in science and technology which results in dissimilarity of individual in the society which is the important factor for social change. The solidarity of traditional society was based on common consciousness, likenesses, and homogenousness mentally and morally. Such common set of norms, values and morality which guide and control individual behavior. As the society developed, the growing development of the division of the labour brings change in the societies from mechanical to organic solidarity which develops out of difference rather than likeness as a result their mental and moral similarity will disappear.

As Margaret Mead provides the insights of the relationship

between personality and culture.¹⁴ Culture is so interconnected and interdependent; culture has the power to easily influence the majority, and socialization pattern which in turn shapes individual personality because distinctive socialization practices in different societies and culture. Each community has a unique culture and history of its own. Modern societies are dominated by rational ethics which replaced the traditional ethics, the Rai community with the increasing institutional differences we find the various changes such as the caste exogamy marriage, change in family structure, weakening of kinship bonds. Therefore, such change is not regarded as something desirable but it is a condition for the existence of the society which maintained group solidarity.

Similarly, traditional kinship, clan based society transformed into modern cultural assimilated society. Modernization has led to the cultural gap between traditional and modern societies, though it has enhanced human standards in many areas like medical facilities, growth of smart town and cities, education imparting scientific and rational thinking, it has improved the quality of life of the people.

Conclusion

The purpose of this paper was to study the changing cultural patterns of Rais community of Sikkim because culture is the important factor that shapes the ways of thinking, acting and interaction among the individuals and live in a general. Based on the field research it can be concluded that there are multiple

¹⁴ Margaret Mead (December 16, 1901–November 15, 1978) was an American cultural Anthropologist who featured frequently as an author and speaker.

Cultural included share values belief and norms of a specific group of people, therefore culture influence the manner we learn, live and behave as culture is an important shaper of individual personality.

cultural and behavioural modifications found among the Rais community of Sikkim.

The impression drawn was, with urbanization, level of educational development, changing role of women, emergence of nuclear family has given new social structures (family, marriage, economy, religious beliefs) to Rais community of Sikkim. Field work shows that older generations are less influenced by modernization and religious conversion as they wanted to preserve their old customs for generations to come. Education plays an important role where there is a move from ascribed status to achieved status. Gradually modernization which provides platform that gives way to better occupation, good living condition and finally leading to change of traditional norms and values of a society. Such change is not regarded as something desirable but it is a condition for the existence of the society which maintained group solidarity.

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Village Polity of the Sumi Naga: Change and Continuity

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Abstract

The Sumi Naga is one of the major tribes of Nagaland. One of the important features of the Sumi is the institution of chieftainship. Every Sumi village has a chief whose post is hereditary. In the traditional times the Sumi chiefs were autocratic controlling the social, economic and political life of his subjects. However, with the coming of Christianity, modern education and adaptation of modern ways of life, and most importantly the

introduction of democratic form of governance; the powers, functions and privileges of the chiefs have undergone changes. Nevertheless, the customary practice of hereditary chieftainship still continues. This paper attempts to analyze the Sumi chieftainship its changes, continuity and the chieftainship as an integral part of Sumi identity.

Keywords: Chieftainship, customary, hereditary, institution, Sumi Naga, village polity.

Introduction

Every society has its own system of political organization in order to regulate the behaviour of its members. It is through this institution certain norms are laid for the members to follow. Like any other society the Sumi Naga tribe have their own system of governance. The Sumi Naga is one of the major tribes found in Nagaland. Zunheboto district is the original home of the Sumis. However in recent times they occupy a larger part of Niuland district. Besides Zunheboto and Niuland districts some Sumi villages are found in other districts of Nagaland like Wokha, Mokokchung, Kiphire and Phek. Thus because of their highly migratory nature the Sumi have spread out in many directions. They are one of the most scattered and adventurous tribes of Nagaland. The Sumi Naga has its own distinctive characteristics. The Sumi polity is based and centred on hereditary Chieftainship. Accordingly, a basic characteristic of Sumi society is that every village has a hereditary chief. Davis (1821) remarked that the most distinctive nature which differentiates the Sumi Naga from other Naga tribe is the practise of hereditary chieftainship at the village level.

The study covers Sumi Naga society including two (2) districts namely; Niuland and Zunheboto. The study is based on both primary and secondary sources. Personal interviews were conducted on purposive sampling with elderly and significant people irrespective of gender of the Sumi community who have sufficient knowledge on the Sumi polity and traditions. The study attempts to analyze how Sumi chieftainship has undergone many changes yet still continues to be an integral part of Sumi identity.

Formation of Village

Every Sumi village has a chief who is the head of the village. In the bygone years the Chief of the village controlled the economic, political and social life of the people. According to the customary practice of the Sumi the one who established a new village becomes the chief. Hutton (1921) opined that it was customary for a chief's son to establish a village of his own taking a considerable number of household from his father's village. Nonetheless, a person intending to have a village of his own need not be the sons of the chiefs alone, but be someone who is physically fit to stand against any kind of challenges. Addition to his physical fitness, he should be wealthy enough to provide to the needy, brave, intelligent, adventurous and the calibre to lead others. The establishment of a new Sumi village is done in two ways: i) Through warfare i.e., by forcefully overpowering the early settlers, and ii) Occupying an empty land.

In order to occupy an empty space to establish a new village, a secret plan is devised under an able leader within a village. The leader gathers from his village people who wish to migrate to a new spot and start a village. On gathering sufficient number of people, they move out from their village to the new spot to establish a village. Much before moving out from the village to establish a new settlement, it is the sacred duty of the leader to spot and sought suitable virgin land free from all encumbrances for settlement and cultivation. In addition to these, Nekha (2017) opines that the intending chief/leader does a thorough survey of the spot he wishes to occupy such as – supply of sufficient natural resources in the surrounding and natural defence system to protect against from impending enemies. On satisfying with the above survey, the intending chief informs the neighbouring

villages of the place the spot he is occupying to start a new village. Prior to all these exercises and activities, the leader is to inform, convince and take permission from the chief of his native village to start a new settlement to avoid bad omens in the whole venture and prosperity of the new village. It is believed that if a village is being settled without the permission the village will not prosper. He also approaches his close associates whom he trust to help him in bearing the responsibilities in the formation of a new village. Thus after the establishment of village, considering their contributions the chief makes them his deputies and thus their status also becomes hereditary. The main leader becomes the head chief known as 'Akukatou' and under him are his deputies. This forms a sort of hierarchy among the Sumi chiefs within a village. The position and status of the Sumi village chief is hereditary. However, the chief could lose his status in case of him leaving his village permanently and settles in another village or township because his powers are limited within the village of settlement. A chieftain losing his position is a rare case among the Sumis. This points to fact, that an *Alukatou/* chief gives his best and has outmost love for the village he has established. Another important point to note is, the Sumi villages are usually small in size because Chieftainship which constantly invite people to move out from their settlement. Hence the diaspora of the Sumi is large. Although a Chief is the most powerful person in his village, outside his village he is treated as an equal with others.

Traditional Powers and Functions of the Chief

In the olden times like any other Naga tribes, solidarity and honour of Sumi villages mostly depended on the chief. The chief ruled over his subjects with justice in accordance with the accepted codes and customs of his village. Usually the

chief was the judge, administrator, commander-in-chief and executive head of the community (Horam 1988).

Military Powers and Functions

Among the Naga tribes, the Sumis are considered as the most adventurous tribes because of their migratory habit which is inevitable because of the existence of Chieftainship. They were popularly known as the warring tribe. According to Nienu (2005) the Sumi method of warfare was a reflection of the role of governance that existed i.e., rule by powerful autocratic chief. In olden times there were constant inter-village and inter-tribal wars. The immediate village was the first enemy. In times of war the chief had to lead and also direct his subjects. Most of the chiefs were also great warriors. In addition to defending and protecting his village, a Sumi chief was the guardian of the weak neighboring villages. In return those villages had to pay him tax (Achumi, 2012). The chief also tried to maintain good relationship with the neighboring villages so as to avoid inter village conflict. It was the duty of the chief to turn out the village from any kind of danger.

Economic Powers and Functions

Among the Sumis landholding system is connected with the establishment of village. The one who establishes the village becomes the owner of the entire land within the demarcated land. Thus being the owner and ruler of the village, the land belongs to the chief and he distributes the land for cultivation (Sema, 1986). He had the power to deprive a person from cultivation if an individual displeased him. He has the power and authority to expel anybody from the village if he/she resisted his authority. The chief not only provide the members of the village with land but also with wives if they are unable to pay the brides price. He also feed them when they are

unable to do so and pays fines on their behalf imposed by other villages due to misconduct (Nshoga, 2009). He had the power to utilize free labour from his subjects and it is an obligation. Violation of this obligation invites punishment up to the extent of expulsion. On the whole in Sumi villages a reciprocal relationship is created between the chief and his subjects.

Political Powers and Functions

According to Hutton (1921) the real pivot of the Sumi society is the chief. He is the most powerful man in the village. All major decisions regarding his village are taken by him. He represents the village in all matters. It is his discretion whether to make peace or war with the neighbouring villages or communities. The peaceful coexistence with the neighbouring villages depends on the chief. During the headhunting days' raids were not made on those villages whom they had an alliance. He makes diplomatic relations with the neighbouring villages. In order to maintain his family status a Sumi chief wants his sons or daughters to marry the sons or daughters of another chief. Marriage between two chieftain families apart from prestige serves as an alliance that was very much helpful in the olden days in order to protect themselves from inter-village feuds and headhunting. Whenever any distinguished strangers come to the village for meeting or official purposes usually they are entertained at the chief's house. They are taken proper care where the best food and drinks are served to them. In this way a healthy relationship is built between them through hospitality. Settlement of disputes within the village is done by the chief with the help of his associates, but the final verdict lies with the chief and no one dares to go against his decision.

Religious Powers and Functions

Before the coming of Christianity, the traditional religion of the Sumi Naga was animism. The Sumis believed in number of spirits and their lives were full of superstitious beliefs. Like any other Naga tribe all life cycles of the Sumis had religious significance. Divinations and omens were observed before beginning any important works like sowing, reaping, going on a hunting expedition, war, establishment of village etc. All agricultural activities were also linked with religious practices. Therefore, in order to carry out the religious duties a village priest was appointed by the chief. In the views of Hutton (1921), a Sumi chief is usually a secular chief rather than a religious chief. However, being the head of a village it was his duty to be well versed with all the religious rites and rituals. Thus according to the *Sumi Centennial Souvenir* (1904-2003) in the olden days all religious rites and rituals were presided over by the village priest and the chief.

Since every activity of man was bounded by religious norms it was the foremost duty of the chief to have the knowledge of it and provide assistance. The chief is expected to know the rituals to propitiate the spirits, the days to be kept as sacred, things which were considered taboo for his subject and for the village as a whole etc. It was his duty to warn his subjects ahead of time about the observation of rituals and also warn his subject not to do things which were considered taboo in order to avert the wrath of the spirits. It was the duty of the chief to proclaim certain days to be observed as sacred to appease the spirits to avert calamities caused by the spirits. He announced the days set aside for clearing the village path and also for the purpose of war and peace (Hutton, 1921). According to Assumi (2009) celebration of festivals was declared by the chief. At the time of reaping

besides the first reaper and the village priest, the chief also played an important role in performing the rites of reaping. In the absence of the village priest he presides over the religious rites and rituals. For e.g., in many villages the chief performed the role of the *Awou* – the priest, *Ashiphu* - the first cutter of the meat. On the whole the chief assumed the general direction of the ceremony while the *Awou* performed the ceremonial act.

Traditional Village Administration

The administration of the village was not an easy task. Therefore, for the efficient functioning of village the most capable persons were selected as the chief's functionaries in the traditional Sumi society to carry out day today administration.

Chochou

Chochou is the Chief's Spokesperson and he occupies an important position in the village. He serves as a sort of herald within and outside the village. All kinds of information are passed through him. For any kinds of errand, the chief entrust him. However, when it come to decision making and settling disputes he does not have a say. He acts as supporters or advisor to the chief. No qualification was required however he should be smart and intelligent. He should be well versed with the customary laws and practices. He is selected from among a person who wins the confidence of the chief. The number of *Chochomi* in a village varies from village to village. In some village there are only one *Chochou* where as in some other there may be two or more. The post of the *Chochou* is not permanent and can be terminated any time if he loses the confidence of the chief.

Awou

Awou is the Village Priest and he is a prominent figure in the village. He proclaims rituals to be observed by the village and also fixes the days for festivals in consultation with the chief. He performs ceremonial acts for the village as a whole, for the families and for the individuals too. He announces the days of festivals and gives warning to the villagers for failure to perform rituals. He is usually selected from amongst the poor people. He does not enjoy any political power but he is the head of the village for all religious matters. He is respected by all. He is also privileged for two days free labour from his villagers *i.e.*, at the time of clearing the jungle for cultivation and during harvest (Yeptho, 1991). The post of *Awou* is not hereditary.

Amthau

Amthau is the first reaper. The first reaper is either an old woman or a man who is believed to have a prosperous hand. After the rite is performed for the harvest the first reaper goes to the field and cuts the crop puts it in her/his pouch and utters “my pouch is heavy this year we will have a good harvest”. After that only the harvest will begin. In return each family gives her/him a small basket of paddy (a small basket tied around a waist where seeds are kept and used during the time of sowing). Prior to her/him/ no one should start the harvest because it is a bad omen. During the harvest she/he is restricted to eat any kind of slain meat left by wild beasts as it is a taboo. She/he also do not take any kind of food which produces pungent smell (Achumi, 2005).

Ashiphuu

Ashiphuu is the first cutter of the meat during festivals and performance of feast of merit. It is usually done by an old

man in the village. During festivals and feast of merit he is the first one to cut the meat of the animals which are being slaughtered to be used for the feast. No one is permitted to cut the killed animals before him as it is a bad omen. However, in some villages this role is performed by the chief himself (Assumi, 2009).

Lapu/Amoshou

Lapu/Amoshou is the official burrier of a village. He is chosen from amongst the people whose clan is the smallest in the village. He digs and buries the corpse of his villagers. During the head hunting days if the birds ate the human heads which were brought to village by the warriors it was considered a bad omen. Therefore, the *Lapu* was entrusted to boil the skull and keep it in a place where the skulls were displayed (Sema, 2012).

Settlement of Disputes

In case of settlement of dispute, the chief is assisted by his deputies, *Chochou* or *Chochomi* (Spokesman) and the elders from various clans whom the chief selects. However, the extent to which he consults his subordinates entirely depends on the personality of the chief. Cases that could not be solved within the family, clan or the disputed parties are brought to the chief's court. The highest court of justice is the chief's court (James, 2013). But in terms of decision making the chief takes the major role. His word is final. Today, this institution has taken the form of village council. The village council is headed by the chief and all his deputies are also the members. All matters of disputes within the village are settled by them according to the customs and practices of the village. This is the highest court of justice within a village. Till today, many people prefer the traditional method of conflict resolution

because it does not involve any expenditure, and the verdict is given without delay.

Change and Continuity

The Sumi Naga tribe have been governing themselves according to their traditional system of administration. All Sumi villages are ruled by the chiefs. Even after the occupation of the British colonial rule to the Naga Hills no new changes are made in the traditional system of administration. The British colonial rule found the Naga style of administration quite impressive. They wanted to spread their administration without disturbing their indigenous way of governance because they thought that if they suddenly impose a new rule it could estrange the natives. Therefore, they began to recognise the role of village chiefs and headmen as their representative to carry out the orders of the Government in their respective villages easily. Thus the traditional form of administration was rather reinforced under the colonial rule. However, this was purely done in interest of the British colonial administration to carry out the administration easily. The Britishers recognised the traditional leaderships and in recognition for their services gave them a red blanket (Sema, 1991). Even today, this red blanket is still used symbolising their status of being a headman or chief. Subsequently the British colonial administrators also introduced the institution of *Dobashi* (a man who know two languages). They acted as informants and personals of the intelligence department. All government orders to the natives were communicated through them. They acted as a link between the British administrators and the natives. As power was vested on them by the British administrators to act as a mediator between them it has somewhat affected the traditional form of governance.

With the coming of Christianity, modern education, democratic ideals etc., and also adopting the modern ways of life there have been some changes in the traditional system of governance. The powers, functions and privileges of the chiefs have been decreased. For e.g., the practise of head hunting decreased and therefore inter-village feud became lesser. The practise of keeping more wives, bonded slaves etc., got discontinued as it goes against the Christian principles and teachings. Almost all the chiefs have given up demanding free labour from his subjects. The functionaries of the traditional village administration disappeared which has been now replaced by the village council. The chiefs also became more liberal than being autocratic. Many of the powers and functions of the chiefs have been decreased. However, in spite of the diminishing role of the chief, the tradition of chieftainship is still alive among the Sumis. Chieftainship is the maker of Sumi society. Even after the attainment of statehood and the introduction of democratic institutions like Village Council (VC), Village Development Board (VDB) etc., the chiefs have become an integral part of these administrative bodies. They continue to play an important role in village administration and also in the tribal affairs. In fact, the Village Council Act of 1978 empowers the village chiefs to be the ex-officio member of the village council and also gave them the voting right (Angami, 2008). Moreover Article 371(A) under the constitution of India gives special rights to the Nagas to protect their customary practices. Therefore, despite many changes, the Sumi chief is still the head of his village. He has a strong voice in the village administration. All major decisions of the village are taken by him. He is still regarded and respected as the head and no one has the right to terminate him from his position of being a village chief. This institution remains to be an important identity of the Sumi Naga.

Conclusion

The institution of chieftainship existed in the Sumi society since time immemorial. Each village functioned under the chief whose post was hereditary. He played a major role in the administration of his village. His decisions were final and no one dare to against him. He was a father figure for his villager and was the most powerful man within the village. However in recent times due to many factors the powers and functions of the chiefs have decreased to some extent. Nevertheless he continues to remain an important figure in the Sumi society.

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