A Study of Narrative Accounting Practices in Indian Steel and Cement Industry

Shankha Shubhra Bhadra*
P. K. Haldar**

Abstract

In this study an attempt was made to understand the narrative accounting practice in the corporate world for which steel and cement industry was chosen, for which some companies from two industries are selected and their annual reports, sustainability report, news reports were analyzed with help of certain statistical tools, specifically the content of annual reports are analyzed and observed. It was observed that all the company complies with statutory reporting as per accounting standard, SEBI regulation, RBI guidelines and all other statutory requirements, but voluntary reporting varies significantly from company to company, which means -- lesser dissemination of narrative accounting in the annual reports, as there is no framework or standard for such.

Keywords: *Narrative accounting, narrative accounting practice, voluntary reporting, annual report.*

Introduction:

In this era, there is lots of information disseminated by corporate houses for stakeholders, which are asymmetry in nature, as different firms report differently, some firm communicates with huge volume of information while on the other hand some only maintain the requirement as per Generally Accepted Accounting Principles (GAAP); leading to various stakeholders and annual report readers — unsatisfied. Due to such variation in reporting, decision making process sometime, becomes irrelevant and a confusing task. So, satisfying all the stakeholders becomes the prime objective of each and every organization. An annual report plays a role of a liaison, which tries to bridge the gap between annual report readers and management. Therefore annual report has to be prepared and presented in such a way that both the purposes are satisfied viz., to communicate and attract potential investors from management point of view and to be aware of each and every operation of the company—from stakeholders' point of view. In this regard apart from quantitative information qualitative information also plays a significant role now-a-days. Such qualitative information is known as narrative accounting, which is increasing in volume over time. As we know, mere showing recorded figures and statements is not sufficient, it also requires proper analysis of figures and interpretation of those figures, statements and ratios, which should be relevant, comparable and understandable by the stakeholders in general and existing & potential investors in particular, which assist them to make appropriate decision regarding various aspects and investment. Notably, most parts of the world and India in particular, such dissemination of information is voluntary in nature; which vary from company to company and industry to industry. Now the question arises, is it really that corporate reporting are different for different

*Research Scholar, Department of Commerce, Tripura University, Agartala.
Email : shankha009@gmail.com
**Professor & Head, Department of Commerce, Tripura University, Agartala.
Email : pkhaldar@rediffmail.com

companies? Does such information vary industry to industry? Voluntary reporting or narrative accounting serve as better way to communicate with their stakeholders, as it increases the transparency and credibility in reporting. As most of the companies of developed countries now-a-day's put more emphasis on qualitative information in their annual report. It can be traced from the fact that both Financial Accounting Standards Board (FASB) and International Accounting Standards Board (IASB) stress on the importance of high-quality financial reports specifically on the qualitative part. According to the 'Steering Committee of Business Reporting Research Project' (2001) voluntary disclosure is better way of communication and in future its importance is going to increase by many folds. Moreover, they recommend certain key elements which need to be incorporated in annual report of each industry such as, narrative reporting of unrecognized intangible assets, forward-looking information, business data, management's analysis of business data, information about management and shareholders and background about the company. Similar type of work was carried by 'Center for Strategy & Evaluation Services (2011)' where they researched that most of the companies surveyed said that it increases the company's credibility and transparency in reporting which probably increases the brand image and importantly, it enables the firm to attract better employee .

In this paper our emphasis is to enquire whether narrative accounting is practiced in Indian Steel and Cement industry. These two industries are selected because these are core industry of the country and have the capability to influence all other industries. Moreover steel and cement industries are such industries which are very important for country's infrastructure/economical development since independence. These two industries are selected as the population of the study and 16 companies, (i.e eight companies from each industry) are selected on the basis of survey done by Fortune India, July 2013, as the sample of the study.

Table 1: List of Select Steel and Cement Companies

Sl No.	Steel Companies	Sl No.	Cement Companies
S1.	Tata Steel	C1.	ACC
S2.	Jindal Steel and Power	C2.	Ultra Tech
S3.	Steel Authority of India Ltd. (SAIL)	C3.	Ambuja Cement
S4.	Essar Steel	C4.	Binani Cements
S5.	Tata Metaliks	C5.	Shree Cements
S6.	Man Industries India	C6.	Birla Corporation
S7.	Jindal Stainless	C7.	Indian Cements
S8.	Jindal SAW	C8.	JK Cements

Source: Fortune India, July 2013.

Apart from contemporary practice prevails in Indian steel and cement industry, enquiry will go further to understand what are the information that the companies wants to communicate to attract the potential investors and other stakeholders and what are the expectations of the stakeholders from the annual reports of the companies.

Review of Literature

A large number of studies have been conducted over the globe over the period covering the different angels of narrative accounting, some of which were highlighted below. In this section, some papers written in last ten years on voluntary disclosure or textual disclosure and perception of stakeholders towards annual reports are discussed.

Botosan (2006) in his paper, "Disclosure and the Cost of Capital: What do we know?" observed and suggested that greater disclosure of information and reduction of information asymmetry by the preparers reduces the cost of capital significantly. Here if quantity of information regarding the firm increases or

disseminates in ample then it reduces the estimation risk, because the investors can predict confidently regarding their investment results in reduction in the cost of capital.

Kothari, Li, and Short(2009). in 'The Effect of Disclosures by Management, Analysts, and Business Press on Cost of Capital, Return Volatility, and Analyst Forecasts: A Study Using Content Analysis' found that negative news disclosure is strongly weighted by the market, and positive news is discounted as firms and investment analysts have incentives to bias the disclosure. This means, corporations' and analysts' communication with the investment community is not credible. Specifically, analysts' reports are heavily discounted, suggesting that either they are not credible or that they are seen as responding to market changes after they have taken place, discounting their impact. So in short they researched that when content analysis indicates favorable disclosures, the firm's risk, as proxied by the cost of capital, stock return volatility, etc decreases significantly. In contrast, unfavorable disclosures are accompanied by significant increases in risk measures.

Nielsen (2010) in his paper, 'Dilemmas in the Usefulness of Business Reporting Narratives Towards Investors and Other Professional Decision-Makers' suggested that primary focus of management commentary should be to meet investors' information needs. However, it must be taken into consideration that all investors are not equal. The real purpose of narrative information dissemination should be to ensure fair on the capital market, and it can be argued that management commentary is of greatest importance to private investors as they do not have access to analyst services, at least not directly or for free. Institutional investors have access to wide range of analyst services, and so they have a lead over the private investors. Therefore management commentary must be concerned with minimizing the information asymmetry between large and the small investors, in turning ensuring a fair capital market.

Li, Fang (2010). in his paper, Textual Analysis of Corporate Disclosures: A Survey of the Literature: highlighted few points among which significant are: textual information if disclosed or prepared in annual reports, should providing information and should not for namesake; secondly, he surveyed that how earning quality influences the textual disclosure, it has been found that if earnings of a firm is poor, its narrative disclosure becomes difficult and complex, in short obfuscate. Importantly, next question he put was: how stock market reacts with disclosure of textual information? He found that along with other researchers that stock market significantly influenced due to the future prediction done on the MD&A section. Moreover, he summarized that availability of the large amount of textual corporate disclosure adds additional dimensions to the examination of market efficiency.

Iatridis & Alexakis (2012) in their paper 'Evidence of Voluntary Accounting Disclosures in the Athens Stock Market' suggested that firms provide voluntary information beyond what is minimally required when the firm has positive changes in profitability, higher growth and higher share trading volume so that it can attract the and influence investors and can also impress stock market participants. Such voluntary disclosure also reports the negative effect on the earnings and profitability. Hence voluntary disclosure provides information to the analyst, stock market authorities and existing as well as potential investors to take judicious decision and to reduce uncertainty and skepticism.

Grace & Ambrose (2013) in their paper, 'Institutional Investors' Perceptions on Quality of Financial Reporting in Kenya', suggested that usefulness of annual report depend upon its completeness, comparability and consistency along with the trait of understandability, relevance, faithful representation, neutrality, predictive ability and timeliness. Researcher also found that a biggest challenge faced by the investors of Kenya is that financial reports prepared over there were technically savvy.

Objectives of the study

(i). To enquire the contemporary narrative accounting practices in Indian steel and cement industry
(ii). To explore whether there is any difference in corporate reporting

Methodology

In this paper, content analysis was usedfor investigating the narrative or textual disclosure in the annual reports manually. For which two criteria were chosen, in the first criteria some of the Key Performance Indicators (KPIs) are presumed and analysed. Secondly, the sample of 16 companies, (i.e eight form steel and eight from cement industry) annual reports are chosen and their KPI's are recorded specifically from the segment Management Discussiion & Analysis (MD&A) which is mandatory segment as per listing Agreement 49 and then applied the statistical tool – ANOVA.

Discussion and Findings

The study finds that all the firms prepare their annual reports as per rules and regulation of the Institute of Chartered Accountant of India (ICAI), Companies Act, 1956 & Income Tax Act, 1961; which proves that preparer of annual report satisfy the legal and mandatory part. Moreover the survival of an organization depends upon another most important stakeholder, i.e shareholders both existing and potential shareholders, as they provide capital to the company. So certain information is required to take judicious decision regarding investment. Therefore certain parameters of voluntary disclosure are set and analyzed; it is observed that all the 16 firms in both steel and cement industry (of this study) disseminate 46.67% of voluntary information which comprises of 17.5% disclosure by steel companies and 29.17% by cement companies, which are not mandatory by the statute. It is also observed that except a cement company all the others do not provide any information on EVA (economic value added) and MVA (market value added). Moreover there is lots of asymmetry in the ways of distribution of information regarding such voluntary part which is quite understood, why it is so. The most pertinent observation is that still in Indian steel and cement industry narrative or voluntary disclosure section has not been given enough significance which is reflected in their annual report except some such as CSR (corporate social reporting) Environmental factors, and global scenario.

Table 2: Key Performance Indicator (KPI)

Sl No.	Key Performance Indicator
1	Political Risk
2.	Foreign Exchange Risk
3.	Business Risk
4.	Financial Risk
5.	Social Accounting
6.	Environmental Accounting
7.	Human Resources Accounting
8.	Brand Valuation
9.	Inflation Accounting
10.	Economic Value Added Statement
11.	Market Value Added
12.	Corporate Social Responsibility
13.	Intangible Assets Score Sheet
14.	Vision and Mission Statement
15.	Global Presence Information

For the purpose of voluntary reporting various KPI (Key Performance Indicator) are bought together to conduct content analysis. For the said purpose various literature and books are consulted to enquire

whether following KPI are the part of the contemporary practice of corporate reporting of Indian steel and cement industry.

Table 3: Reporting by steel companies

Sl No.	KPI	S1	S2	S3	S4	S5	S6	S7	S8	
1	Political Risk	1	0	0	0	0	0	0	0	1
2.	Foreign Exchange Risk	1	1	1	0	0	0	0	0	3
3.	Business Risk	1	0	0	0	0	0	0	0	1
4.	Financial Risk	0*	0	0	0	0	0	0	0	0
5.	Social Accounting	0	0	0	0	0	0	0	0	0
6.	Environmental Accounting	1	1	1	0	0	1	0	0	4
7.	Human Resources Accounting	0	0	0	0	0	0	0	0	0
8.	Brand Valuation	0	0	0	0	0	0	0	0	0
9.	Inflation Accounting	0	0	0	0	0	0	0	0	0
10.	Economic Value Added Statement	0	0	0	0	0	0	0	0	0
11.	Market Value Added	0	0	0	0	0	0	0	0	0
12.	Corporate Social Responsibility	1	1	1	0	0	1	0	1	5
13.	Intangible Assets Score Sheet	1	1	0	0	0	0	0	0	2
14.	Vision and Mission Statement	0	0	0	0	0	0	0	0	0
15.	Global Presence Information	1	0*	1	0	0	1	1	1	5
	Total=(21/120)*100=17.5%									21

S1:3, 4*, S2:15* only one word, without defining what is it.; S4=26 pages

Table 4: Reporting by cement companies

Sl No.	KPI	C1	C2	C3	C4	C5	C6	C7	C8	
1	Political Risk	0	0	0	0	0	0	0	1	1
2.	Foreign Exchange Risk	0	0	0	0	0	0	0	0	0
3.	Business Risk	1	0	0	0	0	0	0	1	2
4.	Financial Risk	0	1	0	0	0	0	0	0	1
5.	Social Accounting	0	0	0	0	0	0	0	0	0
6.	Environmental Accounting	1	1	1	0	1	0	0	0	4
7.	Human Resources Accounting	1*	0	0	0	0	0	0	0	1
8.	Brand Valuation	0	0	0	0	0	0	0	0	0
9.	Inflation Accounting	0	0	0	0	0	0	0	0	0
10.	Economic Value Added Statement	1	0	0	0	0	0	0	0	1
11.	Market Value Added	0	0	0	0	0	0	0	0	0
12.	Corporate Social Responsibility	1	1	1	1	1	1	1	1	8
13.	Intangible Assets Score Sheet	1*	1	0	1	1	1	1	1	7
14.	Vision and Mission Statement	0	0	1	0	1	0	0	1	3
15.	Global Presence Information	1	1	0	1	1	1	1	1	7
	Total=(35/120)*100=29.17%									35

C1:7* related to Human Resources Accounting, 13* related to Intangibles.

Moreover it has also been observed that there is significant difference between the narrative accounting practice between the two industries which is evidence from the ANOVA table. Here for the cement industry total number of observations (disclosed items/events in annual report) are 105 taken as the population and number of items disclosed by 8 cement companies are 36, 10, 41, 20, 38, 30, 19, 12 taken as sample respectively. Whereas, for steel industry total number of observations (disclosed items/ events in annual report) are 55 taken as population and number of items disclosed by 8 steel companies are 22, 13, 22, 16, 11, 12, 13, 6 taken as sample.

To test whether there is any significant difference in the average items disclosed by two industries, two hypotheses are taken:

H_0: There is no significant difference in the average number of disclosed items by two industries.

H_1: There is significant difference in the average number of disclosed items by two industries.

Table 5. Calculation T, SST, SSB, SSW

Cement industries		Steel industries	
X_1	X_1^2	X_2	X_2^2
36	1296	22	484
10	100	13	169
41	1681	22	484
20	40	16	256
38	1444	11	121
30	900	12	144
19	361	13	169
12	144	6	36
$\sum X_1 = 206$	$\sum X_1^2 = 6326$	$\sum X_2 = 115$	$X_2^2 = 1863$

T = sum of all the values of the two samples

$= \sum X_1 + \sum X_2 = 206 + 115 = 321$

Correction factor = $T^2/N = (321)^2/16 = 6440.06$

SST = total sum of squares

$= \sum X_1^2 + \sum X_2^2 - T^2/N = 6326+1863-6440.06=1748.94$

SSB = sum of squares between the samples

$= (\sum X_1)^2/n_1 + (\sum X_2)^2/n_1 - T^2/N = (206)^2/8 +(115)2/8 – 6440.06 = 517.57$

V_1 =Degree of freedom = k-1 = 1

SSW = sum of squares within the samples = SST – SSB =1748.94 – 517.57 =1231.37

V_2 = Degree of freedom = N-k = 16 – 2 =14

Table 6. ANOVA

Sources of variation	Sum of squares(SS)	Degree of freedom(d.f.)	Mean square (ms)	Test statistic
Between samples	517.57	1	517.57	F=517.57/87.995
Within samples	1231.327	14	87.995	=5.88
Total	SST=1748.94	15=N-1		

The table value of F for v_1=1 and v_2=14 at 5% level is 4.60.
The calculated value 5.88 is greater than table value 4.60. Hence we reject the null hypothesis at 5% level and conclude that the difference in the average number of items disclosed by the two industries is significant.

Conclusions

Majority of the Indian steel and cement industry follows and maintain the mandatory or statutory requirement of reporting as per accounting standard, SEBI regulation, RBI guidelines and all other statutory requirements, whereas voluntary information still did not get much significance in the annual reports of two industries, which means -- lesser dissemination of narrative accounting in the annual reports. As there is no such framework for narrative accounting in the statute so there is significant difference between the dissemination of narrative information by the two industry which results in, lots of confusion and difficulties in taking decision and also in making judicious investment decision by the stakeholders and shareholders in particular. The significance difference in reporting by the two industries can be observed from the statistical analysis ANOVA, which shows significant difference in dissemination of narrative accounting as there is no such fixed framework as such for reporting of narrative accounting. So it can be concluded that Indian steel and cement companies in particular and other companies in general must take a stern decision regarding uniform and compulsory narrative accounting practice.

Reference

Beest, Ferdy van; Braam, Geert; & Boelens, S. (2009). *"Quality of Financial Reporting: measuring qualitative charcteristics"*. NiCE Working Paper 09-108. Radnound University Nijmegen, The Netherlands, pp 10-14.

Botosan, Christine A. (2006). "Disclosure and the Cost of Capital: What do we know?" *Accounting and Business Research*, International Accounting Policy Forum, pp. 31-40

Financial Accounting Standard Board. (2001). *"Improving Business Reporting: Insights into Enhancing Voluntary Disclosure", Steering Committee Report*, pp. v-vii.

George Iatridis, & Panayotis Alexakis, (2012). "Evidence of Voluntary Accounting Disclosures in the Athens Stock Market", *Review of Accounting and Finance*, Vol. 11 Issue: 1, pp.73 - 92

Grace, K. & Ambrose, J. (2013). "Institutional Investors' Perceptions on Quality of Financial Reporting in Kenya", *International Journal of Humanities and Social Science*, Vol. 3 No. 21 [Special Issue-December 2013], pp 144-155.

Kothari, S.P., Li, X., & Short, James E. (2009). "The Effect of Disclosures by Management, Analysts, and Business Press on Cost of Capital, Return Volatility, and Analyst Forecasts: A Study Using Content Analysis", *The Accounting Review*, American Accounting Association Vol. 84, No. 5.

Manning, C., & Schutze H. (1999). "*Foundations of Statistical Natural Language Processing*". Cambridge, MA: The MIT Press.

Nielsen, Christian. (2008). *"Through the Eyes of Analysts: A Content Analysis of the Narrative Supporting Recurrent and Fundamental Research"*, Working Paper Series, No.6. Aalborg University, Department of Business Studies, Fibigerstr?de 4, DK
Nielsen, Christian. (2010). *"Dilemmas in the Usefulness of Business Reporting Narratives Towards Investors and Other Professional Decision-Makers", Working Paper Series, No. 3.* Aalborg University, Department of Business Studies, Fibigerstr?de 4, DK
_____(2011). "*Disclosure of Non-Financial Information*", Center for Strategy & Evaluation Services, Sevenoaks, United Kingdom, pp. 4-6.
Varghese, Roshna (2008). "*Corporate Disclosure by Indian Companies"*, Mahatma Gandhi University, Kerela, India, p 17.

Organisational Openness and Its Impact on Employee's Performance: An Empirical Study

Richa Khugshal*
D. S.Chaubey**

Abstract
This research has been carried out to comprehend the impact of organizational openness on employee's performance. This study helps to know the importance of organizational openness in improving the employee's performance. The research was descriptive in nature and convenient sampling was chosen to collect the data. The universe of the study includes 5 colleges located within the Dehradun. A sample of 91 respondents was collected from the universe. Statistical Package for Social sciences Research (SPSS) and various statistical tests were used to analyze the data. . The significant factors contributing to the oragnisational openness emerged as basic values and beliefs, self-awareness, responding to others, shared purpose, interpersonal relationships, cooperation with others, share division, alignment, and contributing to others. In this research, it has been observed that out of all factors of organizational openness "cooperation with others" has maximum impact on employee's performance.

Keywords : *Organistional openness. Values, Self-awareness, Alignment*

Introduction

Openness is an overarching concept or philosophy that is characterized by an emphasis on transparency and free unrestricted access to knowledge and information as well as collaborative or cooperative management and decision making rather than a central authority. Openness can be said to be the opposite of secrecy. For a variety of reasons, openness has become an intensely popular topic of conversation during the past few years. Although much of the discussion has been about free and open content and the use of terms, there has been another quieter dialogue about openness as applied to organizations.

There is overwhelming evidence to show that financial measures are not sufficient to evaluate the overall success and effectiveness of organisation in today's ambiguous, fast paced unpredictable world. (Kaplan & Norton).Furthermore, Academics and practitioners in a similar way believe that the dimensions and capabilities that are important for success in today's business environment, such as openness, sustainability, ability to change and intellectual capital, and how to achieve them, are a mystery for most organisations (Allee, 2003). Drucker identified that organisations need to interact openly in global markets, increased customer needs and turbulent changes which will ensure profit, productivity and long-term sustainability that does not encroach on the natural balance of Earth. Empirical study on the subject of openness reveals that if you have to improve organisational effectiveness, then one has to apply the characteristics of openness and understand the importance of working with the very nature of the organization. Working effectively with openness, sustainability, the ability to change enhances the organizational effectiveness. An organisations culture can explain much about how an organisation functions, both internally and in relation to its external environment. Although there is no one best culture to aspire to, openness should be the foundations of any healthy culture.with this in mind present research work has been taken up with analyzing organisational openness and its impact on employee's performance. The accessibility of researcher with the employees working in some select organization of Dehradun has motivated him to select them for the proposed research.

* Assistant Professor, Uttaranchal University, Dehradun. E-mail: khugshal.richa7@gmail.com
** Professor & Dean, Uttaranchal University, Dehradun. E-mail: chaubeyds@gmail.com

George, Jennifer M.; Zhou, Jing in his study on title ”When openness to experience and conscientiousness are related to creative behavior: An interactional approach” adopted an inter-actional approach to understanding how two (2) of the Five-Factor traits, openness to experience and conscientiousness, are related to creative behavior in the workplace. Openness to experience is theorized to result in high levels of creative behavior and conscientiousness is theorized to result in low levels of creative behavior when the situation allows for the manifestation of the trait influences. More specifically, the authors hypothesized that openness to experience would result in high levels of creative behavior if feedback valence were positive and job holders were presented with a heuristic task that allowed them to be creative. The authors also hypothesized that conscientiousness would result in low levels of creative behavior if supervisors engaged in close monitoring and coworkers were unsupportive.

Review of Literature

Senge (2005) argued that when individuals, teams or the organisations are focused on achievement of accepted goals through collaboration, involving managers and staff participating together in planning, experimenting and implementation, the organisation will be most effective.

Jeff Jarvis, a self-proclaimed advocate for openness, claims that transparency can spark a virtuous cycle: Publicness demonstrates respect, which earns trust, which creates opportunities for collaboration, which brings efficiency, reduces risk, increase value, and enhances brands.”He imagines a radically open organisation that “would encourage all its employees to use the tools of the public net to have direct and open relationships with customers - answering questions, hearing and implementing ideas, solving problems, and improving products. The clearest lesson of the social web is that people want relationships with people, not with brands, spokesman, rules, robots, voice mails, machines, or algorithms.”

The IBM 2012 Global CEO Study of more than 1,600 chief executives from 60 countries, its fifth since 2004, reveals a trend towards more open, team-based working environments in which employees are empowered to facilitate innovation, creativity and collaboration. But CEOs are struggling to balance tight operational and financial control with a culture and structure that encourages disruptive creativity.

Mink (2004) supported Senge’s analysis of internal responsiveness and expanded upon it by suggesting that when people have the opportunities to be creative, have true responsibility and opportunities for personal and professional development, then the level of internal responsiveness at the individual, team and organisation will create a workforce that is focused on achieving the purpose while being responsive to external changes in the marketplace.

Armenakis, Harris, and Mossholder (1993), Eby, Admas, Russell, and Guby (2000) found that organization policies and practices are important in understanding an employee’s openness to change.

Henkel et al., 2014 in his research showed that different open paradigms such as open innovation, open strategy etc. share – and fuel – hopes of combining greater efficiency with more inclusive and transparent forms of organizing.

Stieger et al., (2013) found that open innovation, for instance, the literature anticipates technological (e.g. reduced production costs) and marketing (e.g. positive effects on reputation) benefits (Open strategy, in turn, promises access to dispersed knowledge, with some even speaking of "democratizing strategy.

Henkel (2006); Hippel & von Krogh, (2003) found that openness in organizations point to a number of potential weaknesses and pitfalls such as loss of knowledge and intellectual property.

Objectives of the study

The present study has been taken up with the following objectives

a.To prepare a open organizational profile
b.To examine for the factor structure of the Organisational openness from the data available on some select educational organizations of Dehradun.
c.To study the relationship between organizational openness and employees performance

Hypothesis

It was hypothesized that mean of various factors of organizational openness does not differs significantly across demographic characteristic of respondents.
The degree of organizational openness does not contribute in the employees performance.

Research Methodology

Present research work is descriptive in nature. To achieve the stated objective and test the hypothesis, a survey of 91 employees working in some select academic institution of Dehradun was conducted through convenient sampling. Questionnaire was distributed to 100 employees and out of 100, 91 employees returned the filled questionnaire. The sampling frame was faculty members of various institutions situated in Dehradun. In this research, primary data and secondary data were used. A structured questionnaire was framed covering various aspects of organizational openness to collect the primary data and secondary data was collected through research papers, journal, websites etc. for assessing the organizational openness, a model developed by Mink, Schultz and Mink (1991) were taken into consideration and a construct were developed. After collection of data, it was edited, coded, feeded in the SPSS software. Data was processed using SPSS20 software and then systematically arranged, tabulated and appropriate analysis was carried out. Univariate and bivariate data analysis techniques was used to analyze the data. Reliability of the different attributes of organizational openness was carried out using SPSS software. Cronbach's alpha is computed using SPSS scale reliability programme for each set of constructs. The value of Cronbach?s alpha was found to be .927 which indicates that data is reliable enough to go for further test. Some of the statistical techniques like percentage, rating/ranking, confirmatory factor analysis, ANOVA, regression analysis were used to analyse the data.

Table 1 : Demographic Characteristics of the Respondents

	Categories	Count	Percentage
Age wise classification	Up to 25 Years	-	-
	25-35 Years	2	22
	35-45 Years	47	51.6
	45-55 Years	34	37.4
	55-65 Years	7	7.7
Gender wise classification	Male	55	60.4
	Female	36	39.6
Marital status	Married	56	61.5
	Unmarried	35	38.5
Educational Qualification	Graduate	34	37.4
	Post-Graduate	26	28.6
	Professional qualification, if any	31	34.1
Income wise classification	Below Rs.15000 PM	1	1.1
	Rs15001to Rs.25000 PM	43	47.3
	Rs.25001 to Rs.40, 000 PM	28	30.8
	Rs.40, 000 to Rs. 60000PM	19	20.9
Year wise classification	0-5 Years	47	51.6
	5-10 Years	26	28.6
	10 to 15 Years	18	19.8

Source: Sample Survey

Table 1 shows the demographic characteristics of respondents. The analysis presented in the above table reveals that sample is dominated by the young category respondent ranging in the age group of 25-35 years as it contributes 51.6% in the sample. Majority of the respondent are male (60.4) and married(61.5) category. It is seen that sample is the combination of graduate person (37.4%) and Professional qualification (34.1 %) and having monthly income of Rs15001 to Rs.25000. Majority of the employees are associated with present organisation since last 5 years and this is indicated by 51.6% respondents in the sample and other 28.6%, 19.8% employees indicated that they are associated with present organisation since last 5-10 years, 10 to 15 years.

Table 2. Mean of Different Factors of Organisational Openness Across the Age of Employees

Age	Basic values and beliefs	Self awareness	Responding to others	Shared purpose	Interpersonal relation -ships	Cooperation with others	Shared vision	Alignment	Contri-buting to others
Upto 25 Years	3.4000	2.8333	3.4286	3.2000	3.9167	3.7000	3.0000	3.1667	3.8333
25-35 Years	2.8638	2.8794	3.1125	2.6936	2.8936	3.0596	3.2188	2.9433	2.9929
35-45 Years	3.0000	3.1422	3.1134	2.7824	2.9657	3.0882	2.9538	3.0490	2.9020
45 to 55 Years	3.1143	3.1429	2.6327	2.8286	3.2381	3.3429	3.0204	2.9524	2.3810
55 to 65 Years	4.2000	2.8333	2.4286	2.4000	2.8333	3.0000	3.1429	3.3333	3.3333
Total	2.9604	2.9963	3.0754	2.7451	2.9689	3.1055	3.0989	2.9927	2.9341

From the above table it is seen that factor like Interpersonal relationships has scored highest mean of 3.9167 among the all factors among the employees who have age upto 25 years. However Shared vision has scored highest mean 3.2188 among the employees who have age between 25- 35 years, Self-awareness has scored highest mean 3.1422 among the employees who have age between 35 to 45 years, Cooperation with others has scored highest mean 3.3429 among the employees who have age between 45 to 55 years, and Basic values and beliefs has scored highest mean 4.2000 among the employees who are having experience ranging 55 to 65 years.

Further one way ANOVA was carried out to check whether there is significant difference in the mean of different factors of organizational openness across the employees of different age groups. The information is presented in the table 3.

Inference

We see from the table that the value of F of the different factors of organizational openness is smaller than the tabulated value of F i.e.2.48 at 4 degree of freedom and 0.05 level of significance in case of all factor like Basic values and beliefs, Self-awareness, Responding to others ,Shared purpose, Interpersonal relationships, Cooperation with others, Shared vision, alignment and Contributing to others. Therefore null hypothesis (H0) is accepted and it is concluded that various factors of organizational openness does not differs significantly across different age groups of employees.

Table 3: ANOVA with Age of Employees

		Sum of Squares	df	Mean Square	F	Sig.
Basic values and beliefs	Between Groups	2.581	4	.645	.489	.744
	Within Groups	113.437	86	1.319		
	Total	116.018	90			
Self-awareness	Between Groups	1.595	4	.399	.385	.819
	Within Groups	89.070	86	1.036		
	Total	90.665	90			
Responding to others	Between Groups	2.154	4	.538	.626	.645
	Within Groups	73.983	86	.860		
	Total	76.136	90			
Shared purpose	Between Groups	.753	4	.188	.222	.925
	Within Groups	72.932	86	.848		
	Total	73.685	90			
Interpersonal relationships	Between Groups	2.589	4	.647	.732	.572
	Within Groups	76.017	86	.884		
	Total	78.606	90			
Cooperation with others	Between Groups	1.222	4	.305	.228	.922
	Within Groups	115.206	86	1.340		
	Total	116.427	90			
Shared vision	Between Groups	1.457	4	.364	.376	.825
	Within Groups	83.388	86	.970		
	Total	84.845	90			
Alignment	Between Groups	.411	4	.103	.175	.951
	Within Groups	50.473	86	.587		
	Total	50.884	90			
Contributing to others	Between Groups	4.116	4	1.029	2.448	.052
	Within Groups	36.155	86	.420		
	Total	40.271	90			

One way ANNOVA results : Degree of freedom-4 Tabulated value- 2.48

Table 4. Mean of Different Factors of Organizational Openness Across the Employees of Different Level of Experience

Year wise classification	Basic values and beliefs	Self-awareness	Responding to others	Shared purpose	Interpersonal relationships	Cooperation with others	Shared vision	Alignment	Contributing to others
0-5 Years	3.1277	3.0745	3.1246	2.7617	3.0319	3.0468	3.1520	3.0709	2.9858
5-10 Years	2.9846	2.9551	3.1923	2.9615	3.0064	3.3385	3.0220	2.7308	3.0128
10 to 15 Years	2.4889	2.8519	2.7778	2.3889	2.7500	2.9222	3.0714	3.1667	2.6852
Total	2.9604	2.9963	3.0754	2.7451	2.9689	3.1055	3.0989	2.9927	2.9341

From the above table it is seen that factor like share division has scored highest mean of 3.15 among the all factors among the employees having experience upto 5 years. However cooperation with

others has scored highest mean 3.33 among the employees who are having experience ranging 5-10 years and alignment has scored highest mean 3.16 among the employees who are having experience ranging 10 to 15 years.

Further one way ANOVA was carried out to check whether there is significant difference in the mean of different factors of organizational openness across the employees having different level of education. The information is presented in the table below:

Table 5. ANOVA with Experience of Employees

		Sum of Squares	df	Mean Square	F	Sig.
Basic values and beliefs	Between Groups	5.332	2	2.666	2.120	.126
	Within Groups	110.686	88	1.258		
	Total	116.018	90			
Self-awareness	Between Groups	.707	2	.353	.346	.709
	Within Groups	89.959	88	1.022		
	Total	90.665	90			
Responding to others	Between Groups	2.064	2	1.032	1.226	.298
	Within Groups	74.073	88	.842		
	Total	76.136	90			
Shared purpose	Between Groups	3.515	2	1.757	2.204	.116
	Within Groups	70.170	88	.797		
	Total	73.685	90			
Interpersonal relationships	Between Groups	1.086	2	.543	.616	.542
	Within Groups	77.521	88	.881		
	Total	78.606	90			
Cooperation with others	Between Groups	2.178	2	1.089	.839	.436
	Within Groups	114.250	88	1.298		
	Total	116.427	90			
Share division	Between Groups	.300	2	.150	.156	.856
	Within Groups	84.545	88	.961		
	Total	84.845	90			
Alignment	Between Groups	2.616	2	1.308	2.385	.098
	Within Groups	48.268	88	.548		
	Total	50.884	90			
Contributing to others	Between Groups	1.402	2	.701	1.587	.210
	Within Groups	38.869	88	.442		
	Total	40.271	90			

One way ANOVA results

Degree of freedom-2 Tabulated value- 3.10

We see from the table that the value of F of the different factors of organizational openness is smaller than the tabulated value of F i.e. 3.10 at 2 degree of freedom and 0.05 level of significance in case of all factor like Basic values and beliefs, Self-awareness, Responding to others ,Shared purpose, Interpersonal relationships, Cooperation with others, Shared vision, alignment and Contributing to others. Therefore null hypothesis (H0) is accepted and it is concluded that various factors of organizational openness does not differs significantly across the employees of different level of experience.

Table 6. Mean of Different Factors of Organisational Openness With Employee's Morale and Employee's Performances

Organizational Openness And Performances	Basic values and beliefs	Self-awareness	Responding to others	Shared purpose	Interpersonal relationships	Cooperation with others	Shared vision	Alignment	Contributing to others
To a great extent	2.9571	3.4524	3.2143	2.9714	3.2024	3.5429	3.3061	2.8571	2.8333
To a considerable extent	2.9636	3.0404	3.1082	2.7455	2.9747	2.9333	3.0390	2.9091	3.0101
To some extent	3.0500	2.9896	3.1875	2.9250	2.9688	3.2250	3.3482	3.1458	2.7917
To a little extent	2.8000	2.7051	2.8242	2.5077	2.7821	2.7231	2.5275	3.3333	3.0256
Not at all	3.0000	2.7333	2.9714	2.5467	2.9000	3.2800	3.2667	2.8444	2.9333
Total	2.9604	2.9963	3.0754	2.7451	2.9689	3.1055	3.0989	2.9927	2.9341

We see from the table that the value of F of the different factors of organizational openness is smaller than the tabulated value of F i.e. 2.48 at 4 degree of freedom and 0.05 level of significance in case of all factor like Basic values and beliefs, Self-awareness, Responding to others, Shared purpose, Interpersonal relationships, Cooperation with others, Shared vision, alignment and Contributing to others. Therefore null hypothesis (H0) is accepted and it is concluded that various factors of organizational openness have significant impact on employee's morale and employee's performance.

Table 7. ANOVA with Organizational Openness and Performances

		Sum of Squares	df	Mean Square	F	Sig.
Basic values and beliefs	Between Groups	.487	4	.122	.091	.985
	Within Groups	115.531	86	1.343		
	Total	116.018	90			
Self-awareness	Between Groups	5.116	4	1.279	1.286	.282
	Within Groups	85.549	86	.995		
	Total	90.665	90			
Responding to others	Between Groups	1.489	4	.372	.429	.787
	Within Groups	74.647	86	.868		
	Total	76.136	90			
Shared purpose	Between Groups	2.558	4	.640	.773	.546
	Within Groups	71.127	86	.827		
	Total	73.685	90			
Interpersonal relationships	Between Groups	1.289	4	.322	.359	.837
	Within Groups	77.317	86	.899		
	Total	78.606	90			
Cooperation with others	Between Groups	6.243	4	1.561	1.218	.309
	Within Groups	110.185	86	1.281		
	Total	116.427	90			
Shared vision	Between Groups	6.381	4	1.595	1.749	.147
	Within Groups	78.463	86	.912		
	Total	84.845	90			
Alignment	Between Groups	2.701	4	.675	1.205	.314
	Within Groups	48.183	86	.560		
	Total	50.884	90			
Contributing to others	Between Groups	.766	4	.192	.417	.796
	Within Groups	39.505	86	.459		
	Total	40.271	90			

One way ANOVA results

Degree of freedom-2 Tabulated value- 2.48

Table 8. Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.606	.884		4.080	.000
Basic values and beliefs	.480	.215	.411	2.230	.028
Self-awareness	-.553	.209	-.418	-2.641	.010
Responding to others	-.172	.237	-.119	-.725	.470
shared purpose	-.170	.187	-.116	-.907	.367
Interpersonal relationships	-.036	.228	-.025	-.158	.875
Cooperation with others	.077	.179	.066	.432	.667
Shared vision	-.068	.209	-.050	-.324	.747
alignment	.025	.220	.014	.116	.908
Contributing to others	.146	.257	.073	.566	.573

a. Dependent Variable: overall organizational openness boost your morale and helpful in improving performances

A regression analysis was carried out to have a relationship of all the factor of organizational openness with employee's morale and employee's performance. On the basis of information presented in the above table it can be expressed as

Employee performance (Y) = 3.606 +.480 x Basic values and beliefs -.553 x Self-awareness -.172 x responding to others -.170 x shared purpose -.036 x interpersonal relationships + .077 x cooperation with others -.068 x share division + .025 x alignment + .146 x contributing to others.

Conclusion

In today's world it is difficult for managers to improve employee's performance. The study investigated the impact of organizational openness on employee's performance. Some of the organisational openness factors are basic values and beliefs, self-awareness, responding to others, shared purpose, interpersonal relationships, cooperation with others, share division, alignment, and contributing to others. Out of all factors of organizational openness, "cooperation with others" has highest impact on employee's morale and employee's performance. Regression analysis of data indicates that "Basic values and beliefs" have the maximum edge in improving employee's performances.

References

Armenakis, A. A., Harris, S. G., & Mossholder, K. W. (1993). Creating readiness for organizational change,. *Human Relations*, 46 (6), 681

Eby, L. T., Adams, D. M., Russell, J. E. A., & Gaby, S. H. (2000). Perceptions of organizational readiness for change: Factors related to employees' reactions to the implementation of team-based selling. Human Relations, 53 (3), 419-442. *Human Relations*, 46 (6), 681.

Henkel, J. (2006): "Selective revealing in open innovation processes: The case of embedded Linux." *Research Policy,* 35 (7), 953–969.
Henkel, J., Schöberl, S., & Alexy, O. (2014): "The emergence of openness: How and why firms adopt selective revealing in open innovation." *Research Policy,* 43 (5), 879–890.
Hippel, E., & von Krogh, G. (2003): "Open source software and the 'private-collective' innovation model: issues for Organization Science." *Organization Science,* 14 (2), 209–233.
Mink, O., Mink, B., Downes, E., & Owen, K. (1994). *Open Organizations: A model for Effectiveness, Renewal, and Intelligent Change*. San Francisco: Jossey-Bass.
Mink, O., Schultz, J., & Mink, B. (1991). *Developing and Managing Open Organizations*. Austin TX: Somerset Publishing Group Inc. NY: Doubleday. Journal of Applied Psychology, Vol 86(3), Jun 2001, 513-524. http://dx.doi.org/10.1037/0021-9010.86.3.513
Senge, P. (1992). *The Fifth Discipline: The Art & Practice of the Learning Organization.*, Doubleday Currency, New York
Stieger, D., Matzler, K., Chatterjee, S., & Ladstaetter-Fussenegger, F. (2013): "Democratizing strategy: how crowdsourcing can be used for strategy dialogues." *California Management Review,* 54 (4),44–69.

Production and Marketing Problems of Fruit Processing Units in Manipur: A Case Study

A. S. Yarso*

Abstract

The rich resources of Manipur, namely, favourable agro-climatic condition, availability of variety of quality raw materials, strategic locations and cosmopolitan type of culture prevailing in the state could not be commercially exploited till today. The study is confined to the production and marketing problems of fruit processing units of Manipur with the objectives to evaluate the production and marketing performance of the select fruit processing units and to identify their problems which may have a great significant for the development of this sector.

Keywords: *Cost competitive; infrastructural facilities; market requirements; seasonal demand.*

Introduction

Manipur is a rich state with poor people. The rich state resources namely, favourable agro-climatic condition, availability of variety of quality raw materials, strategic locations and cosmopolitan type of culture prevailing in the state could not be commercially exploited till today due to frequent political unrest and lack of proper marketing infrastructures. Hence, making the people of the state remain poor in the midst of bountiful resources. Fruits are the important crops and it contributes considerable shares in the economy of the State. It is grown mostly on the hill slopes in tribal areas and the contribution to the tribal economy of the State is quite conspicuous. However, a study (Ex-Fertilizer Servicemen Marketing & Consultancy (P) Ltd. Kolkata.1994) found that 30 – 50 percent of fruits are wasted every year due to transport bottlenecks and lack of adequate storage facilities. The need of the hour is strengthening of fruit processing industry along with expansion of marketing network to minimise wastage in the state.

Review of Literature

Fruit processing industry has not received adequate attention of the planners as well as the scholars particularly in north eastern region. A brief review of past researches relevant to the present study have been reviewed and incorporated as follows:

Iyyampi and Balamurugan (2006) observed that the WTO regime has created excellent opportunities for developing countries to increase their exports. However, the developing countries have to improve the quality of products to their international standards. The WTO agreement addresses the food quality standards to be followed by the member countries in the international trade for food products.

Chopra, Vipla (2002) suggested that increased utilization of fruits and vegetables to make different types of processed products is an important way to stabilize process, increased product availability during off season, reduce wastage and utilize the fruits and vegetables as an instrument of

*Assistant Professor, Department of Commerce, Assam University, Silchar, Assam.
Email: asyarso@gmail.com

industrialization. The author also pointed out that there is an acute need for harmonizing the existing food laws and to bring about a development orientation to facilitate faster growth of the industries.
Tata Consultancy Services (TCS) Kolkata and North Eastern Industrial and Technical Consultancy Organisation Ltd. (1998) observed that the horticulture sector in the north eastern region has not yet received due importance and was largely dependent on subsistence farming. The study also revealed that only a meager 3.6 per cent of cultivable land in the region was under horticulture production. Maini and Anand (1996) have observed that because of productivity and value, fruit and vegetable provided much better economic returns per unit area compared to cereal crops and hence it was also a good source of foreign exchange earnings. The authors had suggested that a new orientation is needed to be given to the fruit and vegetable processing industry to upgrade nutrition, minimize post harvest losses, ensure remunerative returns to the growers, increase employment avenues in the countryside and generate foreign exchange earnings.
Singh, H.P. (1995) has observed that there is a strong need to develop horizontally and vertically integrated farmers' organizations to undertake various post harvest operations of fruits and vegetables with professional approach on economic basis and at a commercial scale in order to reduce the existing high marketing cost, enhance producers' share in consumers' rupee and supply of fresh fruits and vegetables and their processed products to the consumers at comparatively low price. He also stated that now it is more conducive to modernize existing fruit and vegetable processing technology in order to produce more competitive products for export. Bhowmick (1994) observed that marketed surplus of fruits and vegetables is the actual amount of produce sold out of the year's production irrespective of his requirements for family consumption, wastage and other payments.
Ex-Fertilizer Servicemen Marketing & Consultancy (P) Ltd. (1994) suggested that marketing channel should be widened, intensified and improved in Manipur. The study recommended the formation of Horticulture Development Corporation which is yet to be implemented in the state. The study also has reported that 30-50 per cent of the horticultural produce of the state were wasted due to transport bottleneck and lack of storage facilities.
Though the present review may not be the exhaustive review of literature, but it can be concluded from the above review that there was no in depth study so far conducted in this field particularly in Manipur. Hence, the present study of "Production and Marketing Problems of Fruit Processing Units in Manipur" may have a great significant for the development of this sector. The emphasis shall be given to identify core issues relating to production and marketing of processed food products in Manipur.

Objectives of the Study

The present study dealt with the production and marketing problems of fruit processing units of Manipur with the objectives to evaluate the production and marketing performance of the select fruit processing units and to identify their problems.

Hypotheses

In order to fulfill the objectives of the present study, the following hypotheses have been formulated:
I. Production per unit cost of processed fruits is high due to high cost of transportation involved in purchasing the fruits.
II. Most of the fruit processing units are born sick due to lack of basic infrastructural facilities such as power, transport, communication and banking facilities.
III. More than 50 per cent of the total market in the state is captured by the product which is manufactured outside the state.

Research Methodology

The present study is based on both primary and secondary data. The primary data were obtained with the help of personal interviews with the concerned executive of the units and also with the help of filled questionnaire collected from the select units.

Selection of the units: The present study confines to the list of fruit processing units obtained from the office of the Deputy Director (Fruit & Vegetable Processing) Eastern Region, Kolkata. Out of the 13 units in Manipur, as per the list provided, 8 units were selected for the study; because two units were dealing with sweetened aerated water and packaging, raw material importing from outside the state, one unit was just the relabeling unit and another unit was found to be sick; whereas one unit could not be contacted during the study period.

Profile of the select Fruit Processing Units: Before evaluating the performance of the units, lets us know the brief background of the fruit processing units selected for the study.

1. Ratna Fruit India: Ratna Fruit India was located at Uripok Polem Leikai, Imphal West District and was commissioned for processing in the year, March, 1992 under the brand name 'RATNA' with FPO Licence No. 7779. It was set up with the main objectives of self-employment and socio-economic upliftment of the state. There were 6 full time workers employed by the unit. The chief items produced by the unit were juice and squash of orange and pineapple.

2. Manipur Hill Fruits Processor: The brand name 'CHANDNI' with the FPO Licence No. 8320 was marketed by M/S Manipur Hill Fruits Processor, located at Pungdongbam, B.P.O. Yourbung, P.O. Lamlong, Imphal East District. The unit has started processing fruits and vegetables from 20th February, 1991 and has 7 full time and 6 part time workers. Employment and income generation were the main objectives of the unit. Pineapple, orange and lemon squash along with lemon pickle and tomato sauce were the main items of products manufactured by the unit.

3. Thangjam Agro Industries: The unit was located at Chingmeirong, Imphal East District and has marketed its products under brand name 'LIKLA' with FPO Licence No. 8327 since June, 1991. The main objective of the unit was to capture the market outside the state by taking the advantage of cheap and abundant availability of fruits and vegetables in the state. The unit has 6 full time and 4 part time employees. Squash of orange, pineapple and lemon were the main products of the unit.

4. Manipur Fruit Juice Crushers: The unit was located at M.G. Avenue, Imphal and has marketed under brand name 'MANIFRU' with FPO Licence No. 3564 since 1981. The main objective of the unit was to generate employment and economic upliftment of the state. The unit has 8 full time and 10 part time workers. The chief items produced by the unit were juice and squash of orange, pineapple and lemon.

5. A Family of Food Products: The brand name 'SANA' with FPO Licence No. 8321 was marketed since October 10, 1990 by M/S A Family of Food Products, located at Sega Road, Takhellambam Leikai, Imphal West. The unit has 4 full time and 7 part time workers. The main objectives of the unit were to solve the unemployment problems and to improve the economy of the state. Juice and squash of orange and pineapple, guava jelly and pineapple jam were the main products of the unit.

6. Govt. Fruit Preservation Factory (MAGFRUIT), Manipur: The brand name "MAGFRUIT" with the FPO Licence No.1443 is marketed by the Govt. Fruit Preservation Factory (MAGFRUIT), Manipur and is located in the campus of Agriculture and Horticulture complex at Mantripukhri, Imphal. The factory was started in the year 1958 for the purpose of demonstration and to impart training to the public for better utilization of the Horticulture crops. It is being run departmentally under the Directorate of Horticulture and Soil Conservation, Government of Manipur and employed altogether 36 employees, 23 of them are full time employees and 13 of them are part time employees. The main items of products produced were squashes of pineapple, orange and lemon.

7. Manipur Fruit Processing and Cold Storage Cooperative Society Ltd: The brand name 'HEIRANG' with FPO Licence No. 4011 was marketed by the Manipur Fruit Processing and Cold Storage Cooperative

Society Ltd, located at Kombirei Road, Lamphelpat, Imphal West, since 24th February, 1975. The main objectives of the unit were to help growers with better prices by eliminating multi-middlemen practices and to enable people to get fresh and processed fruits and vegetables at favourable price throughout the year. The unit has 12 full time and 9 part time employees. Squash of orange, pineapple and lemon were the main products manufactured by the unit.

8. WAIFRUIT (Agrotech and Aqua Products): The unit was located at YVU Bhawan, Indo-Burma Road, Thoubal Wangmataba, Thoubal and has marketed under brand name 'WAIFRUIT' with FPO Licence No. 9724 since 1st August, 1995. The main objectives of the unit were to generate employment opportunities and to generate income mainly from outside the state by selling the product and also to produce good quality diet. The unit employed 11 full time and 42 part time workers. Squash of orange, pineapple and lemon were the main products of the unit.

Data Analysis and Interpretation

In order to evaluate the production and marketing performance of the select fruit processing units and to identify their problems, responses were collected with the help of a structured questionnaire. The analysis and interpretation over their responses along with testing of hypotheses of fruit processing units in Manipur were as follows:

Production Management Problems: Efficient product management will eliminate the host of problems in any business. But the inefficient product management will lead to a less cost competitive in business operation. In order to know whether the fruit processing units of Manipur face any production problem or not, a question was asked to the selected sample units. It was found that 75 per cent of the respondents have production management problems.

Table 1. Production Management Problems

Do you face any production problem ?	No. of response	Percentage
Yes	6	75.00
No	2	25.00
Total	8	100.00

Source: Compiled on the basis of Questionnaire Administered to Fruit Processing Units.

Management of By-Product: Proper management of by-product will reduced the overall cost of production of the manufacturing units. It will definitely decrease the fixed cost of the manufacturing concern and hence the profit margin will increase. To know whether any by-product was manufactured by the fruit processing units, a question was asked to the selected sample units.

Table 2. Management of By-product

Is there any by-product manufacture of your unit	No. of response	Percentage
Yes	0	00.00
No	8	87.50
Total	8	100.00

Source: Compiled on the basis of questionnaire administered to fruit processing units.

It was found that none of the respondents have produced by-product from waste materials after producing squash, jam and jelly.

Treatment of Waste Materials/Products: As it has been reveal by the above Table 2 that more than 87 per cent of the respondents does not have its by-product; significantly a question was also asked about the treatment of their waste products. It was found out that as many as 75 per cent of the respondents just throw away their waste products which otherwise could be utilized for converting other by-product of the units; whereas, 25 per cent of the respondents have use it to feed the animals.

Table 3. Treatment of Waste Materials/Products

How you treat your product waste	No. of response	Percentage
Throw away	5	75.00
Animal feeds	2	25.00
Total	7	100.00

Source: Compiled on the basis of questionnaire administered to fruit processing units

Market Surveys: Conducting market surveys are the foremost important responsibilities of a manufacturing unit in this modern world where customer is regarded as a king. Customers' choices with regard to quality, quantity, size, etc. are determined in advance through market surveys. To know whether market surveys were conducted by the fruit processing units of the state before producing their product a question was asked to the select sample units. It was found that only 25 per cent of respondents had a positive reply; whereas, 75 per cent of the respondents were not indulging in conducting market survey to know the market requirements with regard to quality, quantity, size, before producing the products.

Table 4. Conducting Market Surveys

Have you ever conducted any market survey	No. of response	Percentage
Yes	2	25.00
No	6	75.00
Total	8	100.00

Source: Compiled on the basis of Questionnaire Administered to Fruit Processing Units.

Testing of hypotheses: To test the validity of assumptions, viz. hypotheses-I: Production per unit cost of processed fruits is high due to high cost of transportation involved in purchasing the fruits and hypothesis-II: Most of the fruit processing units are born sick due to lack of basic infrastructural facilities such as power, transport, communication and banking facilities, data were collected from the select units; whereas, to test hypothesis-III: More than 50 per cent of the total market in the state is captured by the product which is manufactured outside the state, data were collected from 56 retailers located in 8 select locations, namely, Lamphel Super Market, RIMS Road, Nagamapal, Khoyathong, M.G. Avenue, Thangal Bazar, Uripok and Singjamei.

To test the hypothesis-I, whether increase in transportation cost leads to increase in cost of production per unit of fruit processing industry, Karl Person's Correlation Coefficient equation was applied on the collected data of 8 fruit processing units from Manipur which is given in Table 5.

Table 5. Cost price per unit & transportation costs per unit

Name of the Brand	Cost price per unit	Transportation cost per unit
Chandni	27	1.38
Heirang	27	1.40
Likla	20	1.07
Magfruit	31	1.60
Manifru	28	1.42
Ratna	25	1.18
Sana	27	1.39
Waifruit	25	1.16

Source: Based on questionnaire collected from fruit processing units.

Table 6. Calculation of Karl Pearson's Correlation Coefficient

X	Y	X^2	Y^2	XY
27	1.38	729	1.904	37.26
27	1.40	729	1.960	37.80
20	1.07	400	1.145	21.40
31	1.60	961	2.560	49.60
28	1.42	784	2.016	39.76
25	1.18	625	1.392	29.50
27	1.39	729	1.932	37.53
25	1.16	625	1.345	29.00
210	10.60	$\sum x^2 = 5582$	$y^2 = 14.225$	XY = 281.85

$$r = \frac{\Sigma XY - n\bar{X}\bar{Y}}{\sqrt{\Sigma x^2 - n\bar{X}^2}\sqrt{\Sigma Y^2 - n\bar{Y}^2}}$$

From the above correlation analysis, it was found that the cost of production per unit of fruit processing units is positively associated with transportation cost per unit. The calculated value of r is 0.942 which is highly significant at 1% level of significance. Therefore, increase in transportation cost per unit will lead to increase the cost of production per unit, hence the hypothesis is accepted.

The major infrastructural facilities such as power, banking facilities, transportation and communication of the North Eastern Region were found far behind than all India average (Yarso, 2002). To test hypothesis-II: whether fruit processing units were born sick because of lack of infrastructural facilities or not, one of the important infrastructures i.e. power was taken for purpose. In this connection, pertinent question was asked to select units about the power required and power available. Based on the data collected from these 8 units paired T test was done through computer software package (SPSS) and the following results were drawn:

Table 7. Power Required and Power Available (Power in HP)

Name of the Brand	Power Required	Power Available
Chandni	3	1.875
Heirang	3	3.000
Likla	3	2.000
Magfruit	3	2.500
Manifru	8	5.000
Ratna	3	2.000
Sana	3	1.875
Waifruit	3	2.000

Source: Based on questionnaire collected from fruit processing units

Table 8. Paired T-Test (Power Required & Power Available)

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	P_REQD	3.6250	8	1.7678	0.6250
	P_AVLE	2.5313	8	1.0706	0.3785

Note: P_REQD= Power Required; P_AVLE= Power Available; Std. = Standard

Table 9. Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 P_REQD & P_AVLE	8	0.932	0.001

Note: P_REQD = Power Required; P_AVLE = Power Available; Sig. = Significance

Table 10. Paired Samples Test

	Paired Differences							
			95% Confidence Interval of the difference					
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df.	Sig.(2-tailed)
Pair 1 P_REQD P_AVLE	1.0938	0.8628	0.3050	0.3724	1.8151	3.586	7	0.009

Note: P_REQD = Power Required; P_AVLE = Power Available; Std. = Standard;
t = Calculated Value; df. = Degree of Freedom; Sig. = Significance.

From the above result obtained from the analysis, it was found that the daily mean power required per unit and mean power per unit are 3.625 and 2.5313 HP respectively and standard deviation of power required per unit and power available per unit are 1.7678 and 1.0706 respectively. Paired sample correlation between the two variables was found to be 0.932 which is highly significance. The paired sample Test for the difference in mean of per unit power required and per unit power available has been found to be significant at 1 % level.

Therefore, the present power available to fruit processing units of the state were insufficient to meet the requirement of the processing units, hence the hypothesis is accepted.

To test hypothesis-III: whether the brand of processed fruits manufacture outside the state have captured more than 50 per cent of the total market of fruit squash, juice, jam and jelly in the state; 56 retailers having their shops in different market places both Imphal East and Imphal West district were interviewed and the following result was derived through computer packages of SPSS.

Table 11. Paired T- Test (Local & Outside Brand)

Paired Sample Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Paired 1	Local	39.5000	56	38.9134	5.2000
	Outside	59.1250	56	114.7890	15.3393

Note: Std. = Standard

Table 12. Paired Samples Correlations

		N	Correlation	Significance
Pair 1	Local & Outside	56	0.261	0.052

From the above result of analysis it was found there is a great deal of difference in the mean of local and outside brand. This has been supported by a paired sample correlation of 0.261, which is significance at 1 % level. However, a statistical test for paired difference of mean of sale between local and outside brand has not found to be significant. It is observed that the main reason behind this was due to seasonal demand of processed fruits.

Table 13. Paired samples Test

	Paired Differences							
				95% Confidence Interval of the difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df.	Sig.(2-tailed)
Pair 1 Local- Outside	19.6250	111.1635	14.8549	49.3948	101448	-1.321	55	0.192

Note: Std. = Standard; t = Calculated Value; df. = Degree of Freedom;
Sig. = Significance

Therefore, the assumption of more than 50 per cent of the total market in the state is captured by the processed fruit product manufactured outside the state was found to be incorrect; hence, the hypothesis is rejected.

Conclusion

The potentials of fruit processing sector in Manipur remain latent due to acute production problems and an inactive marketing practice by the processing units. In the study, as many as 75 per cent of the respondents were facing production problems; found that none of the respondents have by-product from waste materials after producing squash, jam and jelly. It was found out that as many as 75 per cent of the respondents just throw away their waste products which otherwise could be utilized for converting other by-product of the units; whereas, 25 per cent of the respondents have use it to feed the animals. The burden of high cost of production per unit of fruit processing units due to high transportation cost in the state may be reduced to a certain extent if the processing unit in the state can produce by-product from waste raw materials. However, it was observed that basic infrastructure namely power facilities were insufficiently available even for converting raw fruits into finished product; diversified expansion of business have become unwanted adventure for the existing units. Moreover, market surveys were hardly conducted to know customers' choices with regard to quality, quantity, size, etc. by the majority of the select units before producing their product. It was found that 75 per cent of the respondents were not indulging in conducting market survey to know the market requirements with regard to quality, quantity, size, before producing the products. It is observed that fruit processing units of the state can well dominate and capture lion's share of the state market even the regional market can penetrated with success if market survey along with relevant marketing strategy are adopted. Finally, speeding up in building of Food Park in the state will definitely solve if not all the problems faced by the units at present but atleast pertaining transport cost and power availability related problems may be solved.

References

Iyyampi Ilai, S. and Balamurugan, P. (2006). *Processed foods and WTO food safety concerns- an appraisal*, Kurukshetra, New Delhi: Ministry of Rural Development, Nirman Bhavan. March 2006 Issue.

Yarso, A.S. (2002): *Performance evaluation of fruit processing industry in N.E. India: A case study of fruit processing units of Manipur and Assam*; thesis submitted to Manipur University for awarding Doctor of Philosophy in Commerce.

Chopra, Vipla (2002), Food processing industry in India, Political Economy Journal of India, Chandigarh: *Centre for Indian Development Studies*, Vol. 2 Issues 1 and 2, Jan- June.

Tata Consultancy Services, Kolkata and North Eastern Industial and Technical Consultancy Org.Ltd. Guwahati (1998) *Export Potential Assessment of Horticulture and Floriculture Products for the N.E. States: A survey conducted on behalf of APEDA*, Guwahati.

Maini, S.B. and Anand, T.C (1996) Fruit and Vegetable Processing Industry: Present Status and Future Prospects, *Productivity*, New- Age International (P) Ltd. New Delhi. Vol.36. No. 4 Jan- Mar.

Singh, H.P. (1995) Fruit and Vegetable Processing Industry in India, *Yojana*, Vol. 38. No.24.

Bhowmick, B.C. (1994) Marketing of Fruits and Vegetables in North Eastern Region, Paper Presented in *Training on Agricultural Marketing Practices in the N.E. Region (Shillong)*, Organised by NIAM, Jaipur.

Ex-Fertilizer Servicemen Marketing & Consultancy (P) Ltd. Kolkata. 1994. T*echno-economic feasibility study for the development of horticulture in the state of Manipur: A study conducted on behalf of National Horticulture Board,* India.

Perceptions of Entrepreneurs on their Venture Capital Partners: A Study

M. P. Shiva Kumar*

Abstract

Entrepreneurs often rely on venture capital firms not only for funding but also for their value added services. However, little is known about the way the former perceive the latter. Further our understanding regarding the perceptions of entrepreneurs' on venture capital firms comes primarily from the venture capital side as memories of venture capitalists but not from entrepreneurs themselves. Thus, we have tried to assess in our pilot study the impact of age, fund size, and number of investment professionals of venture capital firms on dimensions such as "track record", "operating competence", "pitching efficiency", "favorable deal terms", and "execution assistance" to their venture partners. It appears that the Indian venture capital firms are growing complacent with increase in their age.

Keywords: *Venture capital, entrepreneur relationship, perception, pitching efficiency*

Introduction

Venture capital research is still a young research field. It was first in the early years of the 1990s the research field started to emerge (Barry 1994). Mason and Harrison (1999) view that, despite considerable effort there remains much that is unknown or inadequately understood about this market place. Gompers and Lerner (2000) note that venture capital has grown from a cottage industry to an established financial service industry playing a prominent role in the entrepreneurial process, financing the growth of knowledge-based industries worldwide.

However, in the past sixty years, venture capital industry experienced dramatic dynamics and today the venture capital market is globally matured and the organizational structure of these firms have increasingly growing more professional, hierarchical, and similar to that of other professional services organizations. Thus, in order to be competitive and successful venture capitalists are increasingly trying to build and maintain good relationships with their venture partners, however in order to maintain and improve relationships with their venture partners, venture capitalists should know the perceptions of entrepreneurs on their investment practices.

Review of Literature

A key component in the success of venture capital-backed firms is the relationship between the venture capitalist and the entrepreneur and these personal relationships help venture capitalists not only in building reputation among their venture partners but also in sourcing and winning deals. Prior research finds strong empirical evidence that reputation is a valuable asset, and this has led researchers to develop a number of theoretical models of reputation in the financial services industry. Kreps and Wilson (1982) argue that a firm's reputation gives potential customers valuable information when making their purchase decisions, while offering important competitive advantages to more reputable firms. Tyebjee and Bruno (1984) summarize how venture capital and entrepreneur relations affect the success of ventures. Stomberg and Sahlman et al. (1988) view that venture capitalists when making the investment, they bring financial expertise to structuring the deal and setting appropriate incentive and compensation systems. According to Sahlman (1990) venture capitalists usually receive 2.5% of total capital per year as annual management fees and, 20% of total profits as compensation. Amason and Schweiger

*Associate Professor & Head- Department of Business Management, Swami Vivekananda Institute of Technology, Hyderabad. Email : malladichanak@gmail.com.

(1992) argue that when entrepreneurs have access to venture capitalists expertise, effective interaction between the entrepreneur and the venture capitalist is necessary to realize its benefits and to ensure venture success. Ehrlich et al. (1994) note that entrepreneurs are not always seeking just money from venture capitalists but may also recognize the other bene?ts that they can derive from a positive, cooperative relationship with their venture capital partners. Gompers (1995) view that venture capitalists reputation, their track record of taking portfolio companies to successful exits, and their network with other venture capitalists are important determinants for raising follow-on funds and accessing to high-quality deal opportunities. Busenitz et al. (1997) view that performance may be enhanced, if the venture capitalist and entrepreneur relationship is fair. Cable and Shane (1997) view that post-investment and cooperation between external investors and entrepreneurs are crucial to the portfolio companies' success. Hellmann et al. (2000) document that venture capitalists also serve as coaches for their portfolio enterprises, but the intensity and the way they support their portfolio enterprises differ from venture capitalist to venture capitalist. New York Times (2000) published that venture capitalists have sought to differentiate themselves by the quality of business services and reputational capital they bring to their portfolio companies. Shepherd and Zacharakis (2001) note that venture capitalists and as well as entrepreneurs can build trust by engaging in frequent and open communication, signaling commitment and consistency, being fair and aligning the goals of the company. Gompers and Lerner (2004) note that a successful venture capital investment is characterized by either an IPO or merger and acquisition. Valliere and Peterson (2004) note that both entrepreneurs and venture capitalists are learning and adjusting their behavior as the industry emerges. Hsu (2004) note that entrepreneurs select offers among competing venture capital investors not only based on the financial terms, but more often by considering the reputation of the venture capital investors and also companies care about the identity of the investor, and when faced with multiple offers, companies are often in favor of more reputable investors and turn down less reputable ones even when they offer the best financial terms. Sorensen (2007) argues that there exists a positive sorting in the venture capital market, in that higher-quality companies are associated with more reputable venture capitalists. Krishnan (2009) studied the reputation of venture capital firms, and summarized that for specialized financial intermediaries that face a large number of competitors, reputation can be particularly important and reputation is particularly valuable not only to venture capitalists and their investors but also to potential portfolio firms that rely heavily on venture capital advisory services and risk capital for their survival and growth. Chapman (2009) reported that with reduced access to banks for capital, competition for venture capital funding has significantly increased and because of the increased competition for venture capital, it is important to understand what factors venture capitalists consider important for entrepreneurial success and to evaluate whether entrepreneurs hold a similar view. Krishnan et al. (2009) documented studies to show that entrepreneurs are aware of the benefits associated with venture capitalists reputation. Yavuz, Marquez, and Nanda (2010) note that given the importance of the matching in venture capital investments, how the relationship between venture capitalists and entrepreneurs evolve however is more or less neglected. Cumming and Na Dai (2011) argue that if reputable venture capitalists acquire negative new information regarding the potential of the company, they will stop investing in the company. Alternatively, while entrepreneurs learn positive new information regarding the quality of the company, they might pursue more reputable venture capitalists. Not many studies are available on the perceptions of entrepreneurs about their venture capital investors and it is of interest for several reasons to know how entrepreneurs perceive their venture capital partners on their investment practices.

Objectives and Methodology

The broad objective of the present study is to explore entrepreneurs' perceptions of Indian venture capital firms. Some of the studies attempting to explore entrepreneurs' perceptions of venture capital firms are based on the data available in the website, namely TheFunded.com. TheFunded.com is an

online community of over 18,000 CEOs, founders and entrepreneurs to discuss fund raising, rate and review investors, and discuss strategies to grow a start-up business. It is an online venture capital evaluation website founded by Adeo Ressi, an entrepreneur, in late 2006 and acknowledges that the motivation to start this was to share opinions about venture capital firms among his friends. However, the website received unexpectedly wide acceptance among the entrepreneurial community. The website provides data on venture capital firms operating internationally and these ratings on venture capitalists are giving entrepreneurs more information about whether or not to take money from a particular venture capital firm. This is a very useful service to have, because the venture process is still secretive, and there is little public and objective review information about venture capital firms and their partners. Notably, one has to become a member (who is not a partner or an agent of a firm) to submit ratings and leave comments. TheFunded.com has a profile page for each firm listing their ratings, key information about the firm such as size of its fund, partner names, and even contact information for these partners. Pavlou and Dimoka (2006) noted that online evaluation is becoming a popular tool for organizations to gather feedback from their customers, employees and or other stakeholders and decision makers often use the feedback to make improvements. In the venture capital industry, the emergence and growth of online feedback from sources such as TheFunded.com is reflective of this trend toward more open communication and evaluation. Ours is a pilot study and from the available online source, we have collected the data relating to Indian entrepreneurs who are funded by Indian venture capital firms. The website provides data on five dimensions, they are "track record", "operating competence", "pitching efficiency", "favorable deal terms", and "execution assistance". These data are available only for about thirteen venture capital firms operating in India. We used these Indian data pertaining to entrepreneurs' perception about venture capital firms that have been funded by them. It may noted that, thirty-five entrepreneurs have given their perceptions on these Indian venture capital firms. It is believed that the use of these data will provide the feedback to the venture capital firms operating in India to make improvements in their approach to venture capital funding. Data thus collected were processed, analyzed and interpreted to draw valid inferences. For analyzing, the data and providing a statistical dimension to the study suitable statistical techniques were employed.

The numerical ratings (on a scale 5) on the five dimensions are track record denoted here as Y1, means a record of actual performance or accomplishment of a venture capital firm. Firms are noted to have a robust track record when it has a proven experience in full venture capital cycle of seeding, nurturing and harvesting, and helping entrepreneurs build successful entrepreneurial companies through value add during the course of its investment term and demonstrated by successful exits. Operating competence (Y2), core competencies of a venture capital firm are the combination of pooled knowledge and technical capacities that allow a business to be competitive in the marketplace and range from strategy, financing, law, engineering and business development. The participation of venture capitalist with their technological expertise and industry experience in the operations of a business significantly increases the probability of a product making, scaling the business, allows a company to expand into new markets and helps entrepreneurs grow successful companies.

Pitching efficiency (Y3), a basic premise in the venture capital area for an entrepreneur is building credibility and convincingly presenting the project or an idea before potential investors. In the financial world, pitching business plan to potential investors is a selling process and the speech refers to an entrepreneur's attempt to convince venture capitalist that business idea is worth investing. However, entrepreneurs pitching mechanism is getting refined and focused in the selection of the venture capital partners and considering building a list of target venture capital investors and carefully reviewing the venture capital firms websites, their team members, their successful portfolio companies, recent deals/ exits, their fund focus, stage preference and geography etc.

Favorable deal terms (Y4), venture capital is an invaluable resource for the nascent business and providing much-needed capital, venture capitalists enable a business to fund the future growth that every

entrepreneur hopes for. Negotiations between entrepreneurs and venture capitalists frequently allow a company not only to raise funds but also to create long-term value through lasting business relationships. A very important part of the venture financing process is negotiating the term sheet (or a letter of intent) which will normally represent the end of the initial negotiations. The term sheet reflects an agreed-on valuation, and sets out the amount of the investment that is to be made, as well as the ownership claims the investor receives in exchange for the investment. In addition, the term sheet may identify some of the options, rights, and responsibilities of each party. Striking a favorable deal is all about raising money and negotiating the best possible deal for an entrepreneur.

And execution assistance (Y5), venture capitalists through their execution assistance help professionalize a company by identifying and recruiting competent board and management members, use their connections to help establish entrepreneurial ventures in the marketplace by making introductions to technology-collaboration partners throughout their networks, assist with strategic direction, senior executive hiring, commercialization, and fund-raising initiatives and also actively participate on a company's board.

Discussion

Employing a regression model, we tried to study the impact of three independent variables on the five dimensions listed above. Data from TheFunded.com giving numerical ratings on five dimensions are used to study the perceptions of entrepreneurs on Indian venture capital firms. These data are used in regressions. The independent variables chosen by us to study the perceptions are age of the venture capital firm (denoted as X1), number of investment professionals (X2), and the fund size of the venture capital firm (X3). We expect that with increase in age of the venture capital firm, its contribution (as noted by the five dimensions) to the success of the venture teams will improve. Likewise, with increase in the number of investment professionals we expect them to contribute better for the success of the venture firm. Finally, fund size of the venture capital firm is also expected to aid the five dimensions considered here. The data on the ratings on the five dimensions listed above and the three independent variables chosen to explain the variations in the five dimensions are provided in the table 1 below. These data are used in linear regressions. As a first step, an attempt is made to study the impact of age of the venture capital firm on the five dimensions rated by entrepreneurs using simple linear regression equation.

Table 1. Entrepreneurs Rating on Various Dimensions of Venture Capital Firms

VC firm	VC's Age (X1)	Investment professionals of VC firm (X2)	Fund Size in $ (X3)	Track Record (Y1)	Operating Competence (Y2)	Pitching Efficiency (Y3)	Deal Terms (Y4)	Execution Assist (Y5)
1	16	3	600	4	4	3	3.5	3
2	7	6	60	2.4	3.2	2.2	2.5	3.5
3	18	12	15.32	0	0	0	4	1
4	13	14	525	3.1	2.6	2.5	2.6	2.9
5	6	7	200	4	4	3	0	0
6	7	7	105	2.8	3	3	3.7	3
7	7	9	180	2.7	3	3.8	3	3
8	25	51	350	0	0	0	4	1
9	14	8	500	0	0	0	4	1
10	11	15	325	0	0	0	4	1
11	26	6	2500	0	0	0	4	1
12	10	5	38	5	4	3	4	4
13	8	8	135	5	5	4	3	1.5

(Source: The Funded.com, IVCA 2008 and IVCA 2011 and websites of venture capital firms)

Table 2. Influence of age of venture capital firm on track record- simple linear regression coefficient

Variable name	Regression Coefficient	t-value
Intercept	4.63	4.61
Age	-0.18**	-2.67
R^2(with F-value)	0.39**	7.16

**Significant at less than 5% level

Table 3. Influence of age of venture capital firm on operating competence- simple linear regression coefficient

Variable name	Regression Coefficient	t-value
Intercept	4.73	5.22
Age	-0.19**	-3.11
R^2(with F-value)	0.46**	9.68

**Significant at less than 5% level

Table 4. Influence of age of venture capital firm on pitching efficiency- simple linear regression coefficient

Variable name	Regression Coefficient	t-value
Intercept	4.10	5.59
Age	-0.17**	-3.37
R^2(with F-value)	0.50**	11.41

**Significant at less than 5% level

Table 5. Influence of age of venture capital firm on favorable deal terms- simple linear regression coefficient

Variable name	Regression Coefficient	t-value
Intercept	2.12	3.39
Age	0.08**	2.02
R^2(with F-value)	0.27**	4.11

**Significant at 5% level

Table 6. Influence of age of venture capital firm on execution assistance- simple linear regression coefficient

Variable name	Regression Coefficient	t-value
Intercept	2.86	3.72
Age	-0.06	-1.26
R^2(with F-value)	0.12	1.60

As may be seen from the above tables' age as a factor explaining the variations in the five dimensions of venture capital firms turned out to be having negative impact, except in the case of favorable deal terms. The regression coefficient of age of venture capital companies corresponding to the track record is negative and statistically significant at 5% level. The negative impact may be that entrepreneur's do somehow not acknowledging the past success (track record) of their venture capital partners. Entrepreneurs may have unrealistically high expectations, if the focal venture capital partners were involved in

successful deals before in the market place or some entrepreneurs may be attributing any arrogant attitude exhibited by few venture capitalists to their prior success. It may be noted that the coefficient is negative, that is the age of the venture capital firm surprisingly doesn't help the entrepreneur to rate the venture capital firms high in respect of their track record. Table 2 shows these regression results. Table 3 gives the regression results of the impact of the age of the venture capital firm on operating competence. The regression coefficient in this case is again negative and significant at less than 5% level. This is again a surprising result. It appears that entrepreneurs are quite attentive to the competence of and assistance from their venture capital partners. It seems that entrepreneurs are indeed not impressed by the competence of their venture capital firms in nurturing their ventures.

Table 4 gives the regression results pertaining to the impact of age on pitching efficiency. The regression coefficient is again negative in this case and significant. It may be for the reason, as the New York Times (2012) noted that the business environment has changed from a decade ago, when entrepreneurs struggled to get noticed by venture capitalists flush with funds. These days, the tables have turned, and today, "the best entrepreneurs are courted by the venture capitalists". When entrepreneurs are able to carefully research and choose from many venture capital firms, they expect not only intellectual capital but also polite behavior in the case of rejection of the idea. Table 5 gives regression coefficient corresponding to the impact of age and favorable deal terms, the influence of age on favorable deal terms is not significant though it is positive in this case and not significant at usual 5% level. One explanation for the positive effect of venture capital age on favorable deal terms may be that venture capital firms may be competing against each other for better deals, and this higher competitive pressure making them to secure more deals and thus the venture capital partners may be acting more professionally and friendly towards entrepreneurs and another explanation for positive influence of age in the case of favorable deal terms could be entrepreneurs may not be considering term sheets and compensation as important factors to comment or rate upon negatively on venture capital partners. Next table 6 shows the regression coefficient corresponding to the impact of age of venture capital firm on execution assistance and it is again negative. But the coefficient is not significant at the 5% level. It appears that the entrepreneurs are not satisfied by the assistance of venture capital partners, and thus the age of the venture capital firm is not helping the potential entrepreneurs. Based on the above analysis and tables showing the results relationship between age of the venture capital firm and the five dimensions of the entrepreneurs of venture capital firms, the age of the venture capital firm is generally not helping the venture capital firms to satisfy the entrepreneurs. This is a surprising result. The R^2 values in the above five regressions are reasonably high. Therefore, we cannot totally ignore our results. It seems that with increase in age of the venture capital firm, the firm is becoming complacent. They tend to take things for granted and not paying much attention to the entrepreneurs who are funded. The simple linear regression results showing the influence of number of investment professionals (X2) and the influence of fund size of the venture capital firm (X3) separately on the five dependent variables are not shown here, as the corresponding R^2 values are very low. However, we have attempted a multiple linear regression exercise with three independent variables. Before hand, we arrived at the correlation matrix with the variables on hand. (As may be seen from the table 7 below).

The correlation matrix shows that there is multicolinearity between the variables X1 and X3 with r-value greater than (0.60). Therefore, we have dropped the variable X3 in the multiple regression equations. Thus, we have only two independent variables X1(age of the venture capital firm) and X3 (number of investment professionals). The results of the regressions are presented in the tables 8.1 to 8.5 below.

Table 7. Correlation matrix of the variables

	Age (X1)	No of Investment Professionals (X2)	Fund size (X3)	Track Record (Y1)	Operating Competence (Y2)	Pitching Efficiency (Y3)	Favorable Deal Terms (Y4)	Execution Assistance (Y5)
1	1							
2	0.51497	1						
3	0.656416	-0.08101	1					
4	-0.62796	-0.4406	-0.36622	1				
5	-0.68419	-0.46098	-0.38703	0.978832	1			
6	-0.71365	-0.43548	-0.38931	0.930728	0.957979	1		
7	0.52155	0.212173	0.209844	-0.47462	-0.53242	-0.48919	1	
8	-0.35656	-0.31023	-0.26078	0.513875	0.508728	0.550199	0.181179	1

Table 8.1. Multiple linear regression coefficients of the factors influencing the track record

Variable name	Regression Coefficient	t-value
Intercept	4.62	4.44
Age	-0.16***	-1.93
No of investment professionals	-0.02	-0.56
R^2(with F-value)	0.41**	3.51

**Significant at less than 5% level, ***Significant at less than 10% level

Table 8.2. Multiple linear regression coefficients of the factors influencing the operating competence

Variable name	Regression Coefficient	t-value
Intercept	4.72	5.04
Age	-0.17**	-2.29
No of investment professionals	-0.02	-0.55
R^2(with F-value)	0.48**	4.69

**Significant at less than 5% level

Table 8.3. Multiple linear regression coefficients of the factors influencing the pitching efficiency

Variable name	Regression Coefficient	t-value
Intercept	4.09	5.35
Age	-0.16**	-2.59
No of investment professionals	-0.01	-0.36
R^2(with F-value)	0.51**	5.32

**Significant at less than 5% level, ***Significant at less than 10% level

Table 8.4. Multiple linear regression coefficients of the factors influencing the favorable deal terms

Variable name	Regression Coefficient	t-value
Intercept	2.11	3.24
Age	0.09	1.78
No of investment professionals	-0.00	-0.24
R^2(with F-value)	0.27	1.90

Table 8.5. Multiple linear regression coefficients of the factors influencing the execution assistance

Variable name	Regression Coefficient	t-value
Intercept	2.85	3.58
Age	-0.05	-0.78
No of investment professionals	-0.01	-0.50
R^2(with F-value)	0.14	0.87

The results show that the value of R^2 increased with the addition of variable X2 in the regression equations and they are generally significant at less than 10% level. It may be observed that the independent variable age has significantly impacted on "operational competence" and "pitching efficiency". It has not had any influence on "track record" and "favorable deal terms" and "execution assistance".

Conclusion

Entrepreneurs see venture capital as an important source of finance and associate it with increased growth in their businesses. However, when it comes to considering this source of distinguishable finance, Indian entrepreneurs are also carrying indifferent perceptions around the nature of venture capital. Our results show that age of the venture capital firm has a negative impact on the dimensions such as operating competence and pitching efficiency, and it had no influence on the other three dimensions. Thus, it appears that the venture capital firms are growing complacent with increase in their age and entrepreneurs are not pleased by the assistance of venture capital partners. Therefore, venture capitalists should focus on creating positive experience to their venture teams with their services, while understanding their needs and aim at entrepreneur's fulfillment to improve their image and relationships.

References

Amason, A.C., and Schweiger, D.M. (1994). Resolving the paradox of conflict, strategic decision making and organizational performance, *International Journal of Conflict Management*, 5, 239-253.

Barry, B.B. (1994). New directions in research on venture capital finance, *Financial Management*, 23(3), 3-15.

Busenitz, L.W., D.D. Moesel, J.O. Fiet, and J.B. Barney. (1997). The framing of perceptions of fairness between venture capitalists and new venture teams, *Entrepreneurship: Theory and Practice,* 21(3), 5-21.

Bygrave, W. D. (1987). Syndicated investments by venture capital firms: A networking perspective, *Journal of Business Venturing*, 2 (2), 139-154.

Cable, D. M. and Shane, S. (1997). A prisoner's dilemma approach to entrepreneur venture capitalist relationships, *Academy of Management Review*, 22,142-176.

Colin, M. Mason and Richard, T. Harrison. (2002). The Geography of Venture Capital Investments in the UK, *Transactions of the Institute of British Geographers. New Series*, 27 (4), 427-451.

Cumming, D.J. (2006). Adverse selection and capital structure: evidence from venture capital, *Entrepreneurship: Theory and Practice*, 30, 155-184.

David Teten and Chris Farmer. (2010). Where are the Deals? Private equity and Venture capital funds best Practices in Sourcing New Investments, *The Journal of Private Equity*, 14(1), 32-52.

Dean, A. Shepherd. (1999). Venture Capitalists' Assessment of New Venture Survival, *Management Science*, 45(5), 621-632.

Dave Valliere. (2011). Venture Capitalist Signaling of Screening Skill, *The Journal of Private Equity*, 14(2), 86-99.

Ehrlich, S., A. De Noble, T. Moore, and R. Weaver. (1994). After the cash arrives: A comparative study

of venture capital and private investor involvement in entrepreneurial fims, *Journal of Business Venturing*, 9, 67-82.
Gompers, P.A. (1995). Optimal investment, monitoring, and the staging of venture capital, *Journal of Finance*, 50, 1461-1489.
Gompers, P. and J.Lerner. (2005). Money Chasing Deals?, The Impact of Fund Inflows on Private Equity Valuations, *Journal of Financial Economics*,55,281-325.
Harry, J. Sapienza and Allen, C. Amason. (1993). Effects of Innovativeness and Venture Stage on Venture Capitalist-Entrepreneur Relations, *Interfaces*, 23(6), 38-51.
Heide , J. B. and John, G. (1992). Do norms matter in marketing relationships?, *Journal of Marketing*, 56, 32-44.
Hsu, D. H. (2004). What do entrepreneurs pay for venture capital affiliation?, *Journal of Finance*, 59,1805-1844.
Indian Venture Capital and Private Equity Directory (IVCA) 2008 and 2011.
Kreps, D. M., and R. Wilson. (1982). Reputation and Imperfect Information, *Journal of Economic Theory*, 27, 253-279.
Krishnan, CNV, R. Masulis and A. Singh. (2006). *Does Venture Capital Reputation Affect Subsequent IPO Performance?*, Working Paper, Vanderbilt University.
Pavlov, Paul, A. and Angelika Dimoka. (2006). The Nature and Role of Feedback Text Comments in Online Marketplaces: Implications for Trust Building, Price Premiums, and Seller Differentiation, *Information Systems Research*, 17, 392-414.
Sahlman, W., 1990, 'The Structure and Governance of Venture Capital Organizations', *Journal of Financial Economics*, 27, 473-524.
Sapienza, H., S. Manigart, and W. Vermeir. (1996). Venture capitalist governance and value added in four countries, *Journal of Business Venturing*, 11,439-69.
Shepherd, Dean A. and Zacharakis, Andrew. (2001). The venture capitalist-entrepreneur relationship: control, trust and confidence in co-operative behavior, *Venture Capital*, 3(2), 129-149.
Sorensen, M. (2007). How smart is smart money? A two-sided matching model of venture capital, *Journal of Finance*, 62, 2725-2762.
Tyebjee, T.T. and Bruno, A. V. (1984). A model of venture capitalist investment activity, *Management Science*, 30 (9), 1066-1151.
Valliere, D., and R. Peterson. (2004). In?ating the bubble: Examining dot-com investor behavior, *Venture Capital*, 6(1), 1-22.
Yanfeng Zheng. (2011). In Their Eyes: How Entrepreneurs Evaluate Venture Capital Firms, The *Journal of Private Equity*, 4(2), 72-85.
Yavuz, M.D, R. Marquez, R., and Nanda, V. (2010). *Private equity fund returns: Do managers actually leave money on the Table*, Working Paper, Washington University.

State's Fiscal Management in India: An Assessment with reference to Mizoram

Vanlalchhawna*

Abstract
In a federal set up like India, sub-national governments are assigned important functions such as administration, development of social and economic sectors especially education, health, road infrastructure etc. Besides own revenue receipts from State taxes and non-taxes, the central government transfers substantial amount of fiscal resources to the States to implement their assigned roles given in the Constitution of India. The present study is an attempt to understand the performance of sub-national finance with reference to the State of Mizoram. It analyses total receipts of the State, total expenditure and outstanding libailities of the State.
Keywords: *Sub-National Government, deficit indicators, GSDP, aggregate receipts/expenditure, outstanding liabilities.*

Introduction

Public authorities, both national and sub-national units, played significant roles in providing social infrastructure such as educational, technological, financial, physical, environmental and social infrastructure of the economy (Stiglitz, 2005). Efficient provision of public goods is crucial for general welfare and rapid socio-economic development of a nation. Government intervention in providing public goods has been justified on grounds of market imperfection in provision of these goods (Bagchi, 2005). Market mechanism leads to efficient resource use is based on the condition of competitive factor and product markets which are charaterised by free entry, and full market knowledge by consumers and producers. The market mechanism is well suited for the provision of private goods and services. The exclusion principle, applied in the provision of private goods, tends to be an efficient principle. On the other hand, in case of public goods, the exclusion principle could not be applied as it leads to inefficient solutions. Furthermore, market cannot function effectively if there are externalities which are distinct characteristics of public goods (Samuleson, 1954).

The economics of public sector is primarily concerned with efficient provision of public goods (Musgrave, 1959). The allocation theory of public goods contended that, to achieve economic efficiency in the provision for social goods, national public services should be provided by national government and local services by local government and their costs should be shared in line with the preferences of the residents of the relevant regions (Musgrave, 1959, Oates, 1999, Musgrave & Musgrave, 2013).

Under the Indian Constitution, sub-national governments are assigned expenditures relating to social and economic development of the states. State governments spend substantial amount of resources on education, health and medical services, social welfare, sanitation and supply of safe drinking water, agriculture, road, power, industry, energy etc., which are broadly termed as development expenditure. At the same time, they are responsible for other activities, commonly known as non-development expenditure, which includes expenditure on organ of the state, administrative services, debt servicing and interest payment, pension etc. In the context of Mizoram, the most challenging task is to mobilise internal as well as central resources such as taxes and non-taxes revenue at the optimal level in order to enhance its capacities to finance the expenditure obligation on general administration and socio-economic development of the State.

* Professor, Department of Economics, Mizoram University, Aizawl, Mizoram.
Email:vchhawna@gmail.com

Objectives and Research Methodology

The present essay is an attempt to evaluate the performance of Mizoram State finances over the period from 2002-03 to 2011-12. It addresses the following issues:

(i) Trends behaviour of major deficit indicators such as revenue deficit, fiscal deficit and primary deficit;
(ii) Pattern and trends of aggregate receipts and expenditure and
(iii) Composition of State's outstanding liabilities.

Data are obtained from State's Annual Financial Statement, Demand for Grants, Budget Speeches, Macroeconomic Framework Statement, Medium Term Fiscal Policy Statement, and Fiscal Policy Strategy Statement. Other related secondary informations are derived from Mizoram Statistical Handbook and Mizoram Economic Survey published by the State Government. Simple descriptive statistics such as ratios, percentages etc., are used to analyse the data.

A simple log-linear model has been adopted to measure the buoyancy of State revenue. This is given as follows: Log (Rt) = b1 + b2 log(GSDPt)+ ut; Where, Rt = Revenue (nominal) in year t; GSDPt = Gross State Domestic Product (nominal) in year t; b1 = intercept; b2 = buoyancy estimate or constant elasticity and ut = error term in year t. The main advantage of this model is that it ensures constant elasticity of the dependent variable with respect to dependent variable. In addition, this model is not affected by differences in measurement unit. The growth rates of the fiscal variables are evaluated by primarily estimating the compound growth rate.

Results and Findings

Major Deficit Indicators

The State witnessed significant fiscal improvement as measured by major deficit indicators such as revenue deficit, gross fiscal deficit and primary deficit during 2002-12. Revenue deficit represents a shortfall in revenue receipts against revenue expenditure whereas revenue surplus indicates a surplus of revenue receipts over revenue expenditure. The state witnessed a revenue deficit amounting to (-) 5 percent of GSDP. However, revenue surplus has been observed through out the remaining years (table 1).

Table 1: Major Deficit Indicators (As a percent to GSDP)

Items	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
i) Revenue Deficit	-5	4	4	2	8	3	7	5	2	4
ii) Gross Fiscal Deficit	-15	-13	-9	-13	-6	-10	-2	-6	-8	-3
iii) Primary Deficit	8	6	2	7	1	5	3	1	4	1

Sources :

1. Budget Documents of Government of Mizoram(various years).

2. Economic Surveys Mizoram (various years)

Gross fiscal deficit represents the total borrowing requirement of the State. Reduction of revenue and fiscal deficits are the key target for rule-based fiscal reforms in India. As a percentage to GSDP, GFD is also continously falling during 2002-012. Primary deficit-GSDP ratio has also improved significantly during the same period. Primary deficit is defined as the fiscal deficit net of interest payment which indicates the extent of deficit which is the outcome of the fiscal transaction of the State during the course of the year. Primary deficit as a ratio of GSDP had improved from a (-) 8 per cent in 2002-03 to 1 per cent in 2011-12.

Aggregate Receipts of the State: Trends and Composition

The State's aggregate receipts could be divided into revenue and capital receipts. Revenue receipts could be further split up into tax revenue and non-tax revenue. The tax revenues of the State comprise of own tax revenues and share in Central taxes, and non-tax revenues like own non-tax revenues like fees etc., and grants from the Centre. Revenue receipts are given in terms of state's own revenue and revenue transfers from central government. The state's own tax system consists of direct taxes such as profession tax, land revenue, stamp duty and regisistration and indirect taxes likes sale taxes, state excise duty, motor vehicle taxes, tax on passengers and goods, entertainment tax etc. Interest receipts, dividends and profit, fees and user charges on general, social and economic services are collectively called state's own non-tax revenue. Revenue transfers from central government comprised of shared taxes and grant-in-aid i.e., non-plan grants and plan grants Shared taxes consist of all central taxes which are shareable between the centre and states. Capital receipts comprise of internal debt, loans and advances from the centre, recoveries of loans and advances, and net receipts from public account. Internal debt covers market loans, loans from banks and financial institution, ways and means advances from RBI.

The trend in aggregate receipts relative to GSDP is given in figure 1. Both central transfers and own revenue of the State have shown an improvement over the period. While own revenue registered a modest increase, central transfers showed marked improvement from 2003-2004 onwards. Capital receipts as a ratio to GSDP declined significantly.

Figure 1: Trend in major components of Aggregate Receipts

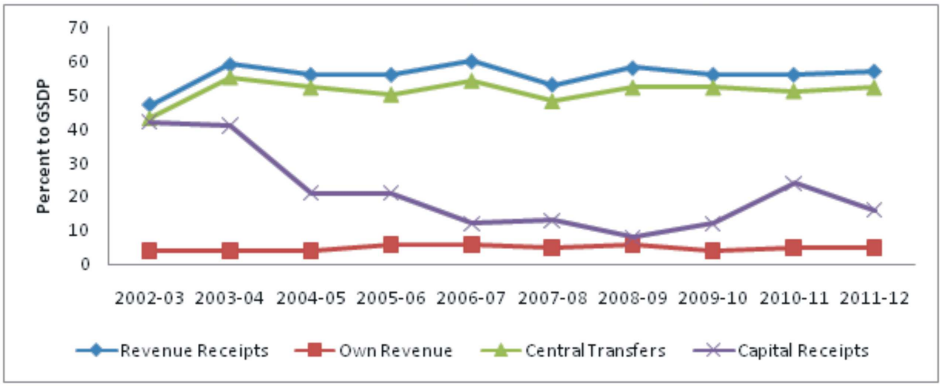

Table 2 summarises the pattern of aggregate receipts of the State. The share of revenue receipts witnessed marked improvement during the period of study. The relative share of state's own revenue also registered a gradual improvement. Mizoram depends heavily on revenue transfers from central government. Central transfers, as a ratio to total receipts, had increased significantly. The share was 49 percent in 2002-03. As on 2011-12, central share accounted for 72 percent of the aggregate receipt of the state.

Table 2. Pattern of Aggregate Receipts (Rs in Crore)

Items	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1	2	3	4	5	6	7	8	9	10	11
TOTAL RECEIPTS (1+2)	1933 (100)	2316 (100)	2068 (100)	2268 (100)	2378 (100)	2549 (100)	3004 (100)	3620 (100)	4822 (100)	5100 (100)
1 Revenue Receipts (A+B)	1022 (53)	1371 (59)	1502 (73)	1654 (73)	1969 (83)	2040 (80)	2653 (88)	2963 (82)	3375 (70)	4012 (79)
A. State's Own revenue (i+ii)	81 (4)	92 (4)	115 (6)	175 (8)	201 (8)	208 (8)	253 (8)	234 (6)	277 (6)	347 (7)
i. State's Own Tax	28 (1)	34 (1)	40 (2)	55 (2)	68 (3)	78 (3)	95 (3)	108 (3)	130 (3)	179 (4)
ii. State's Own Non-Tax	53 (3)	58 (3)	76 (4)	120 (5)	133 (6)	130 (5)	159 (5)	127 (3)	147 (3)	168 (3)
B. Central Transfers (i+ii)	941 (49)	1279 (55)	1387 (67)	1479 (65)	1768 (74)	1832 (72)	2400 (80)	2729 (75)	3098 (64)	3665 (72)
i. Shared taxes	95 (5)	130 (6)	156 (8)	226 (10)	288 (12)	363 (14)	383 (13)	395 (11)	591 (12)	828 (16)
ii. Grants-in Aid	846 (44)	1149 (50)	1231 (60)	1253 (55)	1480 (62)	1469 (58)	2016 (67)	2335 (64)	2507 (52)	2837 (56)
2. Capital Receipts	912 (47)	945 (41)	566 (27)	614 (27)	409 (17)	509 (20)	351 (12)	657 (18)	1447 (30)	1088 (21)
of which:										
i. Internal Debt	734 (38)	462 (20)	404 (20)	307 (14)	231 (10)	214 (8)	100 (3)	194 (5)	510 (11)	443 (9)
ii. Public Accounts (net)	109 (6)	383 (17)	72 (30)	275 (12)	149 (6)	258 (10)	220 (7)	405 (11)	907 (19)	594 (12)

Note: 1. Figures in parentheses are percentages to total

2. Capital receipts include net accruals to public accounts

Source : Budget Documents of Government of Mizoram

The annual growth rates of the major components of aggregate receipts are given in table 3. The total receipt was Rs 1933 crore in 2002-03 and it rose to Rs 5100 crore in 2011-12, recording an annual growth rate of 20 percent. Revenue receipts increased from Rs 1022 crore in 2002-03 to Rs 4012 crore in 2011-12, showing a compound annual growth rate of 15.2 per cent. State's own revenue increased from Rs 81 crore in 2002-03 to Rs 347 crore in 2011-12, indicating an annual growth rate of 16.7 per cent. Increase in own revenue has been mainly contributed by own tax revenue which registered an annual growth rate of 22 per cent. In absolute terms, state's own tax revenue grew from Rs 28 crore to Rs 179 crore between 2002-03 and 2011-12. Meanwhile own non-tax revenue increased from Rs 53 crore in 2002-03 to Rs 168 crore in 2011-02, representing only a 13.8 per cent annual increase. Central transfer which amounted to Rs 941 crore in 2002-03 had risen to Rs 3665 crore in 2011-02, an annual growth rate being 15.2 per cent. While shared taxes grew by 24.8 per cent annually from Rs 95 crore in 2002-03 to Rs 828 crore in 2011-12, grants-in–aid increased from Rs 846 crore to Rs 2837 crore during 2002-03 to 2011-12, representing an annual growth rate of 13.6 per cent.

Table 3. Compound Annual Growth Rates of Aggregate Receipts (2002-03 o 2011-2012)

Items	Per cent
Aggregate Receipts (1+2)	19.78
1. Revenue Receipts (A+B)	15.2
A. State's Own Revenue (i+ii)	16.7
State's Own Tax	22
State's Own Non-Tax	13.8
B. Central Transfers (i+ii)	15.2
Shared taxes	24.8
Grants-in Aid	13.6
2. Capital Receipts (A to D)	2.35
A. Internal Debt	-6.40
B. Public Accounts (net)	4.56

Source : Budget Documents of Government of Mizoram

Capital receipts which was Rs 912 crores in 2002-03 fell down to Rs 351 crores in 2008-09 and thereafter, it increased to Rs 1088 crore in 2011-12. Overall capital receipts registered a growth rate of 2.35 percent. Internal debts consistently decreased showing a negative growth rate. Net acruals from public account showed an annual growth rate of 4.56 percent.

Revenue efforts of the State

The revenue effort of the State is examined by estimating the degree of bouyancy between own revenue receipts (own tax and own-non tax) and the State Gross Domestic Product (GSDP) during 2002-02 to 2011-12. The results of the exercises are given in the following table:

Table 4. Revenue bouyancy of own tax and own non-tax revenue (2002-03 to 2011-12)

Particular	Elasticity
A. Own Tax Revenue	1.5
Professional Tax	0.8
Land Revenue	1.3
Stamp & Registration	1.6
State Excise Duty	0.5
Sale Taxes	1.6
Vehicle Taxes	1.2
Goods & Passengers Taxes	1.1
B. Own Non Tax Revenue	0.9
Interest Receipts	1.7
General Services	-0.2
Social Services	0.7
Economic Services	1.1

Source : Budget Documents, Government of Mizoram

Among own tax revenue receipt, professional tax and excise duty have elasticities less than one indicating that these taxes are not responsive to increase in GSDP. In regards to own non-tax revenue, general service has a negative coefficient (-0.2) representing that, as income increases, revenue receipts from General services declined by 0.2 percent. Social services also registered elasticity less than one. Revenue items having elasticity greater than one signified that every unit increase in GSDP is associated with more than a one unit increase in the revenue receipts. For instance, land revenue has the elasticity value of 1.3 which indicated that a one unit increase in GSDP brought 1.3 unit increases in land revenue. Revenue bouyancy of own tax (1.5) is higher than own non-tax (0.9).

Aggregate Expenditure: Overall Trend and Composition

The aggreagte expenditure of the State is classified into revenue and capital expenditure. Another classification relates to development and non-development expenditure. Revenue expenditure represents expenditure for the normal running of the government department and various services, interest charges on debt incurred by Government, subsidies, salaries, wages, office and allied expenses. Maintenance of capital assets and minor works costing below the prescribed limits are also treated as revenue expenditure. All grants given to autonomous bodies are also treated as revenue expenditure even though some of the grants may be used for creation of assets. In a broad sense, expenditure which does not result into creation of assets is treated as revenue expenditure. Capital expenditure include outlays which go for acquisition of assets like land, buildings, machinery, equiment etc., as also investment in shares etc., loans and advances made to various parties and repayment of loans and advances. Capital disbursement also incoporates transaction in the Public Account.

Development expenditure comprises expenditure on social and economic services where as expenditure on general services are termed as non-development expenditure. Development expenditure has beneficial impacts on the economy and leads to social and economic development. Development expenditure on social services includes education, sports, art and culture, medical and public health, family welfare, water supply and sanitation, housing, urban development, welfare of Scheduled Castes, Scheduled Tribes and other Backward Classess, social security and welfare. Expenditure on economic services comprises agriculture and allied activties, rural development, irrigation, energy, industry and mineral, transport, communication, science and technology etc. Non-development expenditure includes expenditure on general services including organs of the State, fiscal services, interest payments and servicing of debt, administrative services, pension and miscelleneous general services.

Aggregate expenditure as a ratio to GSDP showed a downward trend (Figure 2). Further, the following trends have been particularly observed. First, revenue expenditure as a ratio to GSDP exhibits an upward movement while capital expenditure showed a significant decline. Second, development expenditure as a ratio to GSDP is showing an upward trend till 2005, but the trend declined thereafter. Third, non-development expenditure as a ratio to GSDP which witnessed a marginal trend upward till 2004-05 showed a declinig trend afterwards.

Figure 2. Aggregate expenditure as a ratio to GSDP

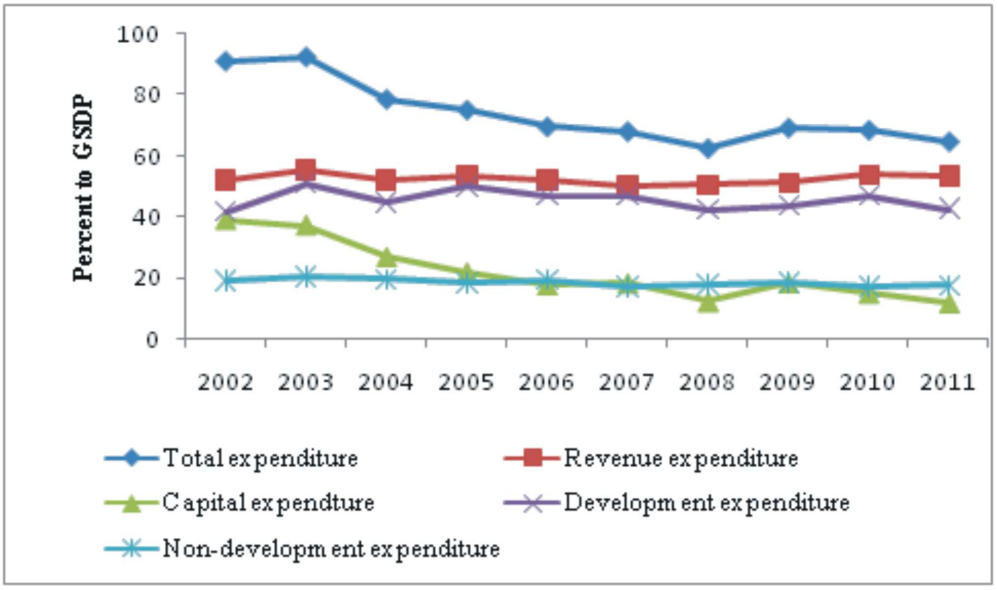

Table 4 shows the composition of aggregate expenditure. In absolute terms, total expenditure has grown by 10 per cent annually from Rs 1975 crores in 2002-03 to Rs 4538 crores in 2011-12. The absolute amount of revenue expenditure increased significantly from Rs 1131 crores in 2002-03 to Rs 3727 crore in 2011-12, showing an annual growth rate of 14.3 per cent. Total capital expenditure recorded an annual growth rate of less than 1 per cent (0.7%) while the total capital outlay increased by 9.6 per cent, showing an absolute increase from Rs 188 2002-03 crore to Rs 615 crore in 2010-11 which again fell down to Rs 495 crores in 2011-12. The absolute amount spent on development expenditure has shown an increase from Rs 905 crore in 2002-03 to Rs 2982 crore, with an annual growth rate of 13.6 percent. Similar trend has been observed in regard to non-development expenditure which showed the growth rate of 12.7 percent during 2002-03 to 2011-12. Non-development expenditure which amounted to Rs 414 crore in 2002-03 rose to Rs 1237 crores in 2011-13. The share of revenue expenditure in the composition of aggregate expenditure showed an upward movement from 57 per cent in 2002-03 to 82 per cent in 2011-12. On the other hand, the share of capital disbursement fell down significantly from 43 per cent in 2002-03 to 18 per cent in 2011-23. Capital outlay as a percentage of total expenditure showed an upward trend till 2007-08 and thereafter, it exhibited a downward trend.

Table 5. Aggregate Expenditure of Government of Mizoram (Rs in crores)

Items	**2002 -03**	**2003 -04**	**2004 -05**	**2005 -06**	**2006 -07**	**2007 -08**	**2008 -09**	**2009 -10**	**2010 -11**	**2011 -12**
Aggregate Expenditure (1+2=3+4+5)	1975 (100)	2153 (100)	2112 (100)	2235 (100)	2295 (100)	2603 (100)	2869 (100)	3666 (100)	4158 (100)	4538 (100)
1. Revenue Expenditure	1131 (57)	1288 (60)	1394 (66)	1588 (71)	1717 (75)	1908 (73)	2314 (81)	2703 (74)	3256 (78)	3724 (82)
of which: Interest Payment	133 (7)	167 (8)	182 (9)	185 (8)	229 (10)	208 (8)	226 (8)	254 (7)	122 (3)	274 (6)
2. Capital expenditure	844 (43)	865 (40)	718 (34)	647 (29)	578 (25)	694 (27)	555 (19)	963 (26)	902 (22)	815 (18)
of which : Capital Outlay	188 (10)	372 (17)	330 (16)	451 (20)	466 (20)	544 (21)	441 (15)	573 (16)	615 (15)	495 (11)
3. Development Expenditure	905 (46)	1180 (55)	1198 (57)	1484 (66)	1542 (67)	1793 (69)	1931 (67)	2302 (63)	2837 (68)	2982 (66)
4. Non-Development Expenditure	414 (21)	479 (22)	526 (25)	555 (25)	641 (28)	662 (25)	824 (29)	974 (27)	1034 (25)	1237 (27)
5. Others*	656 (33)	493 (23)	388 (18)	196 (9)	111 (5)	150 (6)	114 (4)	390 (11)	287 (7)	320 (7)

** Discharge of internal debt, repayment of central loans, loans and advance by State Government*

Note : 1. Figures in parentheses are per cent to aggregate expenditure

2. Capital expenditure is net public accounts

Source : Budget Documents of Government of Mizoram

Interest payment, administrative services and pensions are the three liabilities which dominated non-development expenditure of the State Government. These expenditures are committed in nature. Committed expenditure as percentage to GSDP rose from 17 percent in 2002-03 to 18 percent in 2004-05 (table 6). This was mainly contributed by a rise in interest payment and pension liabilities. Subsequently, committed expenditure as percentage to GSDP fell down to 15 percent in 2010-11, solely contributed by a sharp decline in interest payment and servicing of debt. As on 2011-12, committed expenditure rose to

16 percent of the GSDP.

Table 6. Compound Annual Growth Rates of Aggregate Receipts (2002-03 to 2011-2012)

Items	Per cent
1 Aggregate Expenditure (A+B)	10.2
A. Revenue Expenditure	14.3
B. Capital Expenditure	0.7
of which : Capital Outlay	9.5
2. Development Expenditure	13.6
3. Non-Development Expenditure	12.7

Source: Budget Documents, Government of Mizoram

Table 7. Committed Expenditure and its composition relative GSDP

Items	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1) Interest Payment & Debt Servicing	6	7	7	6	7	6	5	5	2	4
2) Administrative Services	9	8	7	7	8	7	8	8	9	8
3) Pensions	2	3	3	3	2	3	3	3	4	4
Total	17	18	18	17	17	16	16	17	15	16

Source: Budget Documents, Government of Mizoram

Outstanding Liabilities of the State: Composition and Growth Trends

The total outstanding liabilities of the state government comprise various account items under consolidated fund, public account and contingentcy fund. Under consolidated fund, public debt and ways and means advances (WMA) including overdrafts are the two main items. Public debt further consists of the following items: (i) Internal debt which comprises of open market borrowings, borrowings from banks and financial insitutions, special securities issued to NSSF and bonds/debentures issued by the state governments (ii) Loans from the centre (iii) ways and means/overdrafts from RBI. The items falling under public accounts are state provident funds, small savings, insurance and pension funds, reserve funds/ sinking funds, deposits and advances and other items.The total outstanding liabilities of the state during 2002-03 to 2011-12 are given in the Table 8.

The total debt liabilities rose from Rs 1832 crore in 2002-03 to Rs 4000 crore in 2011-12, showing an average annual growth rate of 9.2 per cent. As a ratio to GSDP, the outstanding liabilities showed a declining trend from 88 per cent at end-March, 2004 to 57 per cent at end-March, 2012. During 2002-2007, large fiscal deficits were responsible for a persistently high state's outstanding liabilities relative to GSDP.

Table 8. Growth trends of State's outstanding liabilities

Year	Outstanding Liabilities (Rs in crore)	Annual Growth (Per cent)	Debt/GSDP
2002-03	1832	-	85
2003-04	2044	11.6	88
2004-05	2288	11.9	85
2005-06	2542	11.1	86
2006-07	2810	10.6	85
2007-08	3062	9.0	80
2008-09	3260	6.4	71
2009-10	3164	-2.9	60
2010-11	3697	16.9	61
2011-12	4000	8.2	57

Source: Budget Documents, Government of Mizoram

The component-wise break up of the outstanding liabilities of State Government of Mizoram (SGoM) from 2002-03 to 2011-12 is presented in Table 9.

Table 9. Components of State Government Liabilities (percent)

Items	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1. Internal Debt	36.7	45.5	45.4	47.3	47.5	47.1	44.9	41.4	43.0	43.2
i) Market Borrowings	17.8	20.7	21.9	23.6	25.2	27.4	26.6	26.5	29.3	30.4
ii)Special Securities issued to NSSF	2.1	3.7	4.7	0.0	0.0	4.6	4.2	4.6	4.5	4.3
iii) Borrowings from FI/Banks	16.7	21.2	18.8	23.7	22.3	15.1	14.0	10.3	9.1	8.5
2. Loans from Centre	31.8	27.4	26.3	23.3	20.1	18.2	16.8	17.7	14.6	13.6
3. WMA/OD from RBI	6.2	1.3	1.2	1.1	1.7	0.9	0.8	0.9	0.7	1.2
4. Public Accounts	23.9	25.8	27.1	28.3	30.7	33.8	37.5	40.0	41.7	41.5
i) Provident Funds	21.7	23.6	25.0	26.3	28.7	31.9	35.5	38.0	40.1	39.8
ii) Insurance & Pension Funds	2.3	2.2	2.1	2.0	2.0	1.9	2.0	2.0	1.7	1.6
5. Other Liabilities	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
6. Grand Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Market borrowings constitute an important component of the internal debt of the State. The share of market borrowings in total liabilities of the State has moved up from 18 percent in 2002-03 to 30 percent in 2011-12. The increase in market borrowings can be attributed to the discontinuation of plan loans to the States since April 1, 2005 as recommnended by Twelfth Finance Commission (TwFC). Block loans for state plan is no longer available to the State Governments. Borrowing from NSSF consituted 2 percent in 2002-03 and its share increased to more than 4 percent in 2011-12. The State Government also raise loans from financial institutions like, LIC, NABARD, NCDC, HUDCO, REC etc. The interest rates and other terms and conditions of these loans are negotiated between State Government and the lending institutions. The share of loans from banks and financial institutions witnessed a steady decline. As on 2011-12, its share in the aggregate outstanding liabilities was only 8.5 percent. Loans from the Centre witnessed a steady decline due to three important developments in the financial markets. First, the setting up of NSSF with effect from April 1, 1999; second, the introduction of Debt Swap Scheme (DSS) during 2002-03 to 2004-05 and third, the discontinuation of Plan loans since April 1, 2005.

RBI acts as the bankers to State governments. Every day, all transactions of the State government are automatically consolidated to determine the net final position. If the balance in the government's account shows a negative position, RBI extends a short-term, interest-bearing advance, called a Ways and Means Advance (WMA) limit or amount for which is set at the beginning of each financial year in April. If WMAs could not be cleared by the concerned States within the stipulated dateline, RBI provided advances under overdraft facilities. Frequent WMA/Overdrafts by State governments reflect poor liquidity management of the States. The State Government of Mizoram sometimes resorted to WMA/ Overdrafts from RBI; however, its share in the aggregate liabilities had been falling steadily during 2002-03 to 2011-2012 from 6.2 percent to 0.7 percent. Receipts under provident funds and small saving schemes administered by the State itself form the major component of public account liabilities. These liabilities emerge when State government acting as a banker accepting deposits and funds and pay interest thereon. Public account liabilities accounted for 24 percent in 2002-03 and by 2011-12, its share

rose to 41 percent and became the most important source of State's borrowings.

Conclusion

The present study revealed that the State is highly depended on revenue transfers from the Centre. State's own revenue constituted less than one-tenth of the total revenue receipts of the State. As a ratio of GSDP, aggregate receipts also fell down. Aggregate expenditure relative to GSDP has been persistently declining while revenue expenditure showed an upward trend. Capital expenditure has also seen a downward trend. Though the outstanding liabilities as a ratio to GSDP declined consistently over the period, the State continued to be one of the most highly indebted states in the country. Both market borrowings and receipts under public account constitute the most important sources of State's borrowings.

References

ADB (2009). *Report and Recommendation of the President to the Board of Directors: Proposed Loans India*. Mizoram Public Resource Management Program, July.

_____ (2010). *Program Administration Memorandum*. Program Loan Mizoram Public Resource Management Program (India). February.

Comptroller and Auditor General of India. *Report of the Comptroller and Auditor General of India on State Finances, (2003-04 to 2012-13).* Government of Mizoram.

_____. *Finance Account (2003-04 to 2012-13)*, Government of Mizoram.

Government of India, Ministry of Finance, Dept. of Economic Affairs, (2004): *The Gazette of India, Extraordinary*, July, New Delhi.

_____*Outcome Budget 2013-14*, New Delhi.

_____*Recommendation of Thirteenth Finance Commission*, New Delhi.

_____*Recommendation of Twelfth Finance Commission*, New Delhi.

_____*Recommendation of Thirteenth Finance Commission*, New Delhi.

Government of Mizoram, Finance Department: *Annual Financial Statement.*, 2002-03, 2003-04, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2009-10, 2010-11, 2011-12, 2012-13, 2013-14

_____ (2007) : *Statement on Prospect of the State Economy and Medium Term Fiscal Policy*

_____ ____(2005): *Budget Speech*

_____: *Medium Term Fiscal Policy*, 2007-08, 2008-09, 2009-10, 2010-11, 2011-12, 2012-13

_____: *Macroeconomic Framework Statement*, 2008-09, 2009-10, 2010-11, 2011-12, 2012-13

_____: *Fiscal Policy Strategy Statement,* 2009-10, 2010-11, 2011-12, 2012-13

_____(High Power Committee), (2008): *Report of the Restructuring of Public Sector Enterprises under the Government of Mizoram*

_____Planning and Implementation Dept.: *Economic Survey of Mizoram*, 2012-13

RBI (Various Years) : *State Finances*, 2003-04, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2009-10, 2010-11, 2011-12,

World Bank (2004): India: *State Fiscal Reforms in India (Progress and Prospects) Report No 28849*-in State Acts/Rules

The Mizoram Fiscal Responsibility and Budget Management Act, 2006

The Mizoram Fiscal Responsibility and Budget Management Rules, 2007

The Mizoram Finance Commission Act, 2010

The Mizoram Ceiling on Government Guarantees Act, 2011

Entrepreneurial Problems and Prospects of Fishery Farm in Wabagai Circle in Thoubal District of Manipur

Bidhu Kanti Das*

Abstract

Wabagai is a town in Thoubal district of Manipur is known as its water resources and fish culture as its economic activity. Lots of commercial fish farm is there, and it is the major fish production centre in the state of Manipur. Otherwise, Manipur state is mainly depend on other states for its need of fish and fish related products. In this paper, researcher has given emphasis on various entrepreneurial issues related to fishery business and the problem and prospects of entrepreneur in the field of commercial fishery.

Keywords: Entrepreneurship, Fish culture, fishery firm, return on investment,

Introduction

Wabagai is a town located in Thoubal district of Manipur state and located in 39 km. to the southeast from Imphal city. The shape of the town is irregular and it lies between 24°32` North latitudes and 93°56`East longitude. Its average elevation is about 778 metres (2555 ft) from the sea level. It is located on the bank to the Sekmai River. The town is surrounded by two big lake namely Pumlen lake on the left side and Kharung lake on the right side. The population of the town is around 6700 and fish has long been an important food item for the inhabitants of this town. Fish has been associated with the life of people of town from time immemorial. Not only does it provide nutritious food but also form an unbreakable relation with culture, religion and tradition of this town. With more than 85% of population being fish eater, there is a high demand for fish. Around 400 families are doing or engaged with fishery farm. The entire fishery farm is registered under the department of fishery Manipur. They use to produce tones of tones fish in every year and ½ of total fish production in Thoubal district are produced by Wabagai town and help in growth and development of state economy. The fish produced here were supplied to whole of Manipur. Even though they help in growth and development of economy, they have faced lots of problem like high farm level losses, low productivity result from lack of knowledge, skill, modern method of fish cultivation, lack of new technology and unavailability of fish feed poses a problem to the fishery farm. In order to give some contribution to reduce such problem and promote fishery farm in this town researcher has decided to study the prospects and problems of fishery firms in the Wabagai circle in Thoubal district of Manipur.

Objectives

The following are the objectives of the study:

-To identify the problems associated with fisheries farm in Wabagai circle

-To study the action required for promoting the fishery Farm in Wabagai Circle of Thoubal District of Manipur

-To recommend some suggestion for entrepreneurial efficiency in management of fisheries in Wabagai Circle

Methodology

The methodology adopted for the study is exploratory in design and the data is collected from the entrepreneurs involved in fish farming. The data is collected through simple random sampling. Primary data were collected by interview and schedule while secondary data were collected from various repositiories like books, journals, internet etc. The study is confined to Wabagai circle of Thoubal

*Assistant Professor, Department of Management, Mizoram University, Aizawl
E-mail: bidhukantidas@mzu.edu.in

district of Manipur, therefore, its limitation is that its findings may not be applicable as universal and even may not match with other districts of Manipur.

The population of the study is approximately 380 fishery farms; the sample selected is forty (40) which approximately is 10.5% of the total population. Sources of data were both primary and secondary. Primary data were collected from a schedule filled up by the researcher by taking interview with the respondents. Secondary data were collected from district fishery office, journals and different repositories. Statistical tools like chi squire test were used along with percentages for the analysis of the data.

Data Analysis

Table 1. Analysis of Response of Fishery Farms about the Problem and Prospects of Fishery Farm

Sl. No.	Parameter	Total Number of respondents	Response in different parameters	Number of Respondents	Percentage	Chi-square
1.	Area of the farm or land	40	Below ½ Ha.	3	7.5	19.40
			½ Ha. to 2 Ha	20	50	
			2 Ha. to 5 Ha.	13	32.5	
			5 Ha. and above	4	10	
2.	Initial capital invested for business	40	Below - 50000	7	17.5	10.85
			50001 - 200000	23	57.5	
			200001- 500000	10	25	
			500001 and above	0	0	
3.	Monthly expenditure	40	Below – 5000	1	2.5	11.60
			5001 - 10000	15	37.5	
			10001 - 20000	13	32.5	
			20001 - above	12	30	
4.	Finance from Financial Institutions	40	Yes	27	67.5	4.90
			No	13	32.5	
5.	Annual Income	40	Below – 100000	3	7.5	18.35
			100001 - 1000000	25	62.5	
			1000001 to 2000000	12	30	
			20000001 & above	0	0	
6.	Plan to expand the business	40	Yes	36	90	25.60
			No	4	10	
			Not Decided	0	0	
7.	Management of the firm	40	Self only	19	47.5	10.40
			Family members only	17	42.5	
			Relatives only	0	0	
			Professional Manage -ment or others	4	10	
8.	Target market	40	Local market	6	15	31.40
			District market	4	10	
			State Capital Market	30	75	
9.	Attending training programme for better management of the firm	40	Yes	16	40	1.60
			No	24	60	
10.	Applying modern technology in the firm	40	Yes	3	7.5	28.90
			No	37	92.5	

Source: Field Study

The above table 1 shows that descriptive analysis of the data collected from the 40 fish farm owners. In this section, the responses of the owner of fishery firm were analyzed with the help of statistical tools in a tabular format and their findings were given below. Altogether the responses of 40 firm owners were analyzed and conclusions made from the findings only.

The analysed data are presented in the form a table as shown above. Outcomes of the analysis are given below for the understanding of the various issues related to initiation and operation of a commercial fishery firm. The paper also discusses the problems faced by the entrepreneurs to maintain their fish farms. The researcher also delved into the qualitative aspects of the fish farms and about their expectations from the government for development of the fishery farms to protect their income, facilities needed for expansion of their business, future challenges and prospects of commercial fishery farms. The detailed analysis of the table is presented below:

The table shows that the majority of the farmers/entrepreneurs are holding farmland less than two (2) Hectares. All of the respondents owns their farmland by themselves meaning, it is neither leased not mortgaged to any commercial banks or any moneylenders. It also shows that 50% of respondents are having farmland area of ½-2 hectare,32.5% respondents having area of 2-5 hectare while 10% and 7.5% are having area of 5-10 hectare & above and area of below ½ hectare respectively. Though majority of the firms are small and marginal are not able to take the benefit of modern farming and technology but remaining are large scale business. If they want they can afford to go for modern farming and get the benefit of economies of scale. The calculated value of the chi-square is 19.40 which is higher than the table value 7.81473 at 3 df at 5% level of significance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning the data is not normally distributed.

In terms of investment used for the start up, the table's item no. 2 shows that the initial capital invested for the fishery farm is less than Rs. 2 lakhs, which is together 75 percent of the total. A small portion which is about 25 percent of the sample invested more than Rs. 5 lakh as initial investment for making various facilities like fishery tank, its fencing and for sapling and seed for food of the fish-sapling. The calculated value of the chi-square is 10.85 which is higher than the table value 7.81473 at 3 df at 5% level of significance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning the data is not normally distributed.

The table also studies the expenditures incurred in the management of the fish farms. In item no. 3, it is found that the majority of the entrepreneur's monthly expenditure for maintain the fish farm is high. The study finds that only about 16 farms are spending less than Rs. 10000 per month as maintenance cost. It shows that out of 40 respondent 37.5% of respondent's monthly expenditure are in the range of Rs 5000 to Rs 10000, while 32.5% are in monthly expenditure of Rs.10000-Rs 20000. The 30% of the respondents spend monthly above Rs 20000 while 2.5% spend monthly below Rs 5000 to their respective farms. The calculated value of the chi-square is 11.60 which is higher than the table value 7.81473 at 3 df at 5% level of significance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning the monthly distribution of expenditure is not normally distributed.

Mode of financing is found out from the item no. 4 of the table. It was found that the majority of the respondents have taken loan from commercial banks to finance their business. It shows that 67.5% of respondents have got financial help as a loan while the remaining 32.5% haven't got any loan from any financial institutes. Those who are not attached with financial institutions are willing to avail the benefit of loan but due to hassles and stringent norms of the bank, they are not able to procure loans. So they are managing from their own resources or borrowing from relatives and money lenders. The calculated value of the chi-square is 4.90 which is higher than the table value 3.841 at 1 df for 5% level of significance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning that the data is not normally distributed.

Income generated from the fish farm is shown in item no. 5 of the table. It is found that majority of them are earning less than Rs. 10 lakh as annual income. Only few of them are earning more than Rs. 10 lakh as annual income. All of the respondents, irrespective of their income generated from fishery are able to maintain family, education of their children from the income generated from the fishery farm. The calculated value of the chi-square is 18.35 which is higher than the table value 7.81473 at 3 df with 5% level of significance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning the data is not normally distributed.

Future plans are shown in item no. 6 of the table and it was found that almost all of them are want to expand their business, either in terms of investing more money and increasing the production cycle or by increasing the size of the fishery tank. For getting financial assistance from Government department or commercial banks, few of the respondents are attending training programs organized by the state government. The null hypothesis is rejected and the alternate hypothesis is accepted, meaning the data is not normally distributed as the calculated value of the chi-square is 25.60 which is higher than the table value 5.9915 at 2 df at 5% level of significance.

In item no. 7 shows the management of the fish farms. The study finds that 47.5 percent of the respondents are managing their business by themselves while 42.5 percent are managing with the help of their family members only. Only 10 percent are managing by hiring professionals for the business. The calculated value of the chi-square is 10.40 which is higher than the table value 7.81473 at 3 df with 5% level of significance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning the data is not normally distributed.

In the table above, item no. 8 shows the target market for the fisheries product from the respondent's fish farms. The study finds that the majority of the produce is sold in the state capital which is Imphal because of demand, customer and competitive pricing. Those who are not able to afford to transport to Imphal for selling their produce, their products are sold in the local market or middlemen to sell their produce. The null hypothesis is rejected and the alternate hypothesis is accepted, meaning the data is not normally distributed as the calculated value of the chi-square is 31.40 which is higher than the table value 5.9915 at 2 df at 5% level of significance.

Training and development of the skills for the farmers play an important role in the development of their trade. In item no. 9 of the table, it was found that 40 percent fish farmers attended training programme for fish cultivation, organized by various bodies and the state government. Remaining 60 percent have never attended any progrrame regarding their business. They are using their knowledge transferred from friends, families or relatives for fish farming or sometime taking advices from other farmers nearby to them for solving their day-to-day problems. It was also found that those who are attending the training programme are not able to implement the suggestions or knowledge gathered from the training programme. The calculated value of the chi-square is 1.60 which is lower than the table value 3.841 at 1 df for 5% level of significance. Therefore, the null hypothesis is accepted meaning that the data is normally distributed.

In item no. 10, the table displays those fish farmers who have applied modern technologies for fish production. The table shows that from the entire respondents mere 7.5% of respondents have applied the modern technology in culturing the fish in their farm while remaining 92.5% of the respondents say that they have not applied any modern technology to culture fish in their respective farm. Those who are using modern technology like composite fish farming and classic fish farming are getting better production in their firm. Majority of the farmers are continuing with their age-old methods of fish production and getting less production on per square meter and less return on investment. The calculated value of the chi-square is 28.90 which is higher than the table value 3.841 at 1 df for 5% level of significance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted, meaning that the data is not normally distributed.

Conclusions and Suggestions

The study finds that the conventional fisheries management in the context of small scale fisheries in the Wabagai area is well established, and has witnessed a significant shift in thinking and approaches to the management of this sector in the past years. The concepts and principles system of this sector, complexity theory and adaptive management have shown an emergence of a new fisheries paradigm. The study also concludes that expansion of knowledge-base has motivated to change the fishing practices and fishery management, driven by modern methods and technology. In Wabagai circle of Thoubal district, most of the owners of fisheries are still following the age-old method of fishing and fishery management. It is suggested that the time has come to change the methods and technology to get maximum benefit, also increase the production of the firm. There is a tremendous scope in this business because of growing demand of fish products and increasing dependency on other states for the fish or fish related products.

From the above conclusions, it is suggested that some measures are needed to be taken up to overcome the problems. First of all, the state government should take some initiatives that modern farming technology could be adapted by the fish farmers. Secondly, there is a need for regular training to those small scale farm owners so that they can understand the benefits of modern fish culture. Thirdly, there should be some initiatives that the owner of the farms can get easy access to financial services like loan and insurance so that they can improve their financial conditions of the farm. Lastly, the government should provide high breed fish saplings to farmer, or the farmers may form cooperatives and get access to high breed fish saplings, fish feed from other states by which they can increase the fish production as well as their economic activities.

References

Allison, E. H., & Ellis, F. (2001). The livelihoods approach and management of small-scale fisheries. *Marine Policy, 25*, 377 - 388.

Apostle, R., Barrett, G., Holm, P., Jentoft, S., Mazany, L., McCay, B., & Mikalsen, K. (1998). *Community, State and Market on the North Atlantic Rim. Challenges to Modernity in Fisheries.* Toronto: University of Toronto Press.

Barkes, F., Mohan, R., McConney, P., Plllnac, R. C., & Pomeroy, R. S. (2001). *Managing Small Scale Fisheries: Alternative Directions and Methods.* Ottaw: International Development Research Centre. Retrieved from www.idrc.ca/booktique

Bavington, D. (2002). Managerial Ecology and its Discontenta: Exploring the Complexities of Control, Careful Use and Coping in Resource and Envirinmental Management. *Environments, 30*(3), 3-21.

Bavington, D., & Slocombe, S. (2002). Managerial Ecology: Contestation and Critique. *Environments, 30*(3), 3 - 21.

Berkes, F. (2003). Alternatives to Conventional Management: Lessons from Small-Scale Fisheries. *Environment, volume 31(1),* 15-16.

Charles, A. T. (2001). *Sustainable Fishery System.* Oxford, UK: Fishing News Books, Blackwell Science.

Goldburg, R., & Naylor, R. (2005). Future Seascapes, Fishing, and Fish Farming. *Frontiers in Ecology and the Environment, 3*(1), 21 - 28.

Kottelat, M., & Whitten, T. (1996). Freshwater biodiversity in Asia with special reference to fish. In T. W. Bank, *World Bank Tech. Papaer no. 343.* Washington D. C: The World Bank.

Mohan, R. (1997). Does fisheries Science Serve the need of managers of small stocks in developing Countries? *Canadian Journal of Fisheries and Aquatic Science, 54*, 2207 - 2213.

Munilkumar, S., & Nandeesha, M. C. (2007). Aquaculture practices in Northeast India: Current status and future direction. *Fish Physiol Biochem, 33*, 399 - 412.

Pandey, D. K., De, H. K., & Hijam, B. (2014). Fish Farmers' Perceived Constraints in transfer of aquaculture technology in Bishnupur district of Manipur, India. *International Journal of Fisheries and Aquatic Studies, 2*(1), 1 - 4.

Pitcher, T. J., Hart, P. J., & Pauly, D. (1998). *Reinventing Fisheries Management.* London: Kluwer.

Sharma, C. (2011). securing economic, social and cultural rights of small-scale and artisanal fisherworkers and fishing communities. *MAST, 10(2)*, 41-42.

Sowman, M. (2011). New Perspective in Small-Scale Fisheries Management: Challenges and Prospects for implementation in South Africa. *African Journal of Marine Science, 33*(2), 297-311.

Viswanath, W. (2002). *Fishes of North East India.* Imphal, India: Manipur University.