

GYANA

AN INTERDISCIPLINARY RESEARCH JOURNAL

Vol. III No 1 2007-08



**Diocesan Society of Education's
ROSAIRY COLLEGE OF COMMERCE & ARTS**

**(Accredited by NAAC with Grade B+)
Navelim, Salcete, Goa**

Ph. No. 2701564 / 2736864

Fax : 2736864

E-mail : rosary_1990@sify.com

www.rosarycollege.org

EDITORIAL BOARD

Dr. (Fr.) Walter de Sa - Chief Editor

Dr. Afonso Botelho - Convenor

Mr. Savio Falleiro

Mrs. Neeta Mazumdar

Published by:

Principal

Rosary College of Commerce and Arts

Navelim, Goa.

Printed by:

Vijaydeep Graphics

Navelim, Goa.

Ph.: 2730062 / 9960291425

2008

Copyright © Principal, Rosary College of Commerce and Arts, Navelim

Note :

The editorial board is not responsible for the views and findings published in this journal.

CONTENTS

1.	Identity Politics, Mobility Aspirations and the Emergence of the Dual System of Schooling <i>Dr. Afonso Botelho</i>	01
2.	A Study of Anxiety of Seamen in Goa <i>Fr. Jeronimo D' Silva</i>	13
3.	Television Cable Services in South Goa – A Study <i>Mr. Jim Barreto</i>	20
4.	Migration of Fish from Coastal Area Influenced by Pollution: A Case Study in Goa <i>Mrs. Neeta Mazumdar</i>	25
5.	'e-Ferral Commerce' – The Opportunity of the New Millennium <i>Mrs. Sandra D'Mello</i>	35
6.	A Study of Road Accidents and Bike Usage Patterns among College Students in Goa <i>Mr. Savio Falleiro</i>	40
7.	Mining Association Rules in Databases Having Transactions with Repeated Items <i>Mr. Shekar B. Naik</i>	50
8.	धनगर (गवळी) समाज: एक अभ्यास-भाग १ <i>श्री. सुशांत नाईक</i>	54
9.	Attitude towards Sex Education: A Focus on Urban and Rural Adolescents <i>Ms. Tanya Marchon and Ms. Eulalia Fernandes</i>	59
10.	Functioning of Goa Handicrafts, Rural and Small Scale Industries Development Corporation Ltd (GHRSSIDC) <i>Mr. Manuel Fernandes, Ms. Cristina Clemente, Ms. Kitty Colaco, Ms. Ingrid Goes, Ms. Melisia Fernandes, Ms. Nisha Naik, Mr. Nitesh Dessai, Ms. Pradnya Gawas and Mr. Richard Simoe - Department of Commerce</i>	63
11.	गोंयचे सांस्कृतीक जिणेंत लोकवेदाचें महत्व: एक अभ्यास. <i>कु. भवती शिरोडकार आनी कु. नंदिता आजनांवकार - कोंकणी विभाग</i>	72
12.	Data Management System for Adventure Studio <i>Mr. Ossy Deniz, Mr. Silson D'silva, Mr. Merwyn Rodrigues, and Mr. Lawrence Pereira - Department of BCA.</i>	79
13.	Study on Risk Appetite and Investment Habits of People <i>Mr. Raghavendra Totekar - Department of BBA</i>	87

From Editor's Desk

The Research and Development Cell has been consistently making efforts to promote research culture as well as motivate teachers and even students to undertake research projects. Colleges should not merely be teaching institutions. Teaching and research are like the two hinges upon which higher education swings.

As such, an interdisciplinary journal, entitled **GYANA**, came into existence. We are indeed happy that the third volume of **GYANA** is being released by the Hon. Vice-Chancellor of Goa University, Prof. Dileep N. Deobagkar, on the occasion of the **FOUNDERS' DAY** to be held on 12th February, 2008. Though one may point out, **GYANA** is still in its infancy stage, however, it translates our commitment to make higher education research oriented. Research, we believe, is the mainstay of higher education. To strengthen further the research base and to attract the teaching faculty into research, the UGC under XI Plan has come out with a number of incentives which the teaching fraternity could avail of. The said Plan also envisages to generate research-based knowledge.

This current issue of **GYANA** records some of the new findings on the relevant issues affecting our very own existence. In fact, research aims, as pointed out by Dr. K. K. Bagchi, "to bring about greatest good to the greatest number of people in society".

The faculties as well as the students whose research contributions are documented in this issue deserve our sincere appreciation for their genuine interest in research that culminated in the publication of this journal.

We wish that **GYANA** *crescat et floreat*.

Dr. (Fr.) Walter de Sa
Principal

IDENTITY POLITICS, MOBILITY ASPIRATIONS AND THE EMERGENCE OF THE DUAL SYSTEM OF SCHOOLING

Dr. Afonso Botelho

Lecturer (Selection Grade)

Department of Sociology

The Union of India has been organized into linguistic states with the majority language, generally elevated to the status of the official language of the concerned state. While the official language or the dominant language enjoys tremendous privileges, the minority languages are marginalized by the state. The official language is used as the language of administration and as the medium of instruction in educational institutions. Assimilation and dissimilation are the characteristic responses to the dominant languages. In other words, mobility aspirations and identity considerations determine the linguistic behaviours, specifically in language choice in the domain of early schooling. An unintended consequence has been the emergence of a dual system of schools in every state. The economically advanced class of parents opts for unaided private expensive English medium schools for their children. The masses, by force of circumstances, especially financial difficulties, admit their children in schools conducted in regional languages. This dichotomy not only reproduces but also aggravates the already existing social and economic inequality.

This paper attempts to situate the dual system of schooling within the overall framework of the primordial pull of language preservation and the instrumental draw of language assimilation. Presenting a historical overview of education and language in India, the paper proposes that educational planners, committed to 'Education for all' seriously question the elitist framework of education. The paper describes the emergence and prevalence of the dual system of schooling in India and attempts to pave way for a search for an alternative, improved system of education that is the need of the hour.

Education in Pre-Independence India

In Ancient India, mostly Brahmins functioned as teachers and provided formal instruction only to a small minority of the population. Religious edicts debarred other *jatis* from letters and formal education. Brahmins were the repositories of learning and transmitted the knowledge of the divine scriptures and higher religious and secular knowledge to succeeding generations in religious institutions called *tols*, *vidyalayas* and *chatuspathis* (Bottomore 1975: 263; Desai 1991: 137). The medium of instruction was Sanskrit. Apart from these, there were, in all villages and towns, vernacular schools, which taught reading, writing and elementary arithmetic. Traders, generally, took advantage of these schools. The lower *jatis*, agriculturists, women and the untouchables hardly attended any school¹. The family and the traditional occupational groups trained the novices in technical skills in informal and practical ways. Among Muslims, it was the Arabic and Persian languages which were used as the media of instruction.

The British Government was one of the main agencies responsible for the introduction and dissemination of modern education in India. Colonial education, more than evangelizing and enlightening the natives, had a politico-administrative objective. English medium education was preferred as an obvious means of assimilating the natives with the rulers (Annamalai 2001: 92). However, the English medium of education did not take off without contest. A protracted controversy raged on among the Orientalists, Anglicists and Vernacularists until Lord William Bentinck finally resolved, based on the (in)famous minute of Thomas Macaulay (of 2nd February 1835), to financially and administratively support only English medium education. By the middle of the 19th century English became the dominant language of education (*ibid.*: 97). However, as mass education in modern language was necessary to upgrade the labour force in India and there was a lack of an effective Downward Filtration Effect, the East India Company provided for direct involvement of the government in mass education through the vernaculars. Later, in the aftermath of the 1857 army rebellion, the government reverted to the earlier policy of English education to a few. The Indian elite, too, was reluctant to accept education through the vernacular media (*ibid.*: 98) and 'even by 1882, over 60 percent of primary schools still had English as the medium of instruction (Krishnamurti 1998:310). Sweeping changes were brought about in the early years of the 20th century, during the tenure of Lord Curzon, which were also due to the national movement. The government of India passed the following resolution on the Indian Education Policy (1904):

The mother tongue of the pupil should be used as the medium of instruction both at the primary and middle stages. The government did not accept the opinion that English should take the place of the mother tongue. But some mastery over English at the middle stage was necessary, so that the pupil could make better progress in high school stage where English was the medium of instruction (quoted in Das Gupta 1993:22).

Later in 1917 a commission under the chairmanship of Sir Michael Saddler, inquiring into the problem of education in general observed:

We are emphatically of the opinion that there is something unsound in a system of education which leaves a young man, at the conclusion of his course, unable to speak or write in his own mother tongue fluently and correctly. It is thus beyond controversy that a systematic effort must henceforth be made to promote the serious study of the vernaculars in secondary schools, intermediate colleges and in the university (Kanungo 1962:47 cited in Krishnamurti 1998:310).

According to Krishnamurti (1998:311) the above situation resulted in restricting English to 'College and University levels from the 1920s onwards throughout the country'. The medium of instruction from the primary to the high school level was the dominant regional language or the mother tongue except in few schools, which were meant specifically for English nationals and affluent Indians. English was taught as one subject from class V or VI onwards and it was the medium of instruction at the intermediate, college and university level. The scheme of education got further stabilized during the diarchy for 16 years from 1921 (*ibid.*: 1998: 308-309; Annamalai 2001: 99).

Linguistic States and Medium of Instruction

In the pre-colonial educational set-up, the languages of advanced learning were Sanskrit or Arabic-Persian. Similarly, in the colonial era English indisputably assumed the role of the language of superior and advanced education vis-à-vis the regional languages, the media of comparatively inferior and ordinary education (Khubchandani 1997: 203,209). In the independent Indian nation, emerged the idea of the national language to symbolize the country and its people, and the replacement of English by Indian languages in education. The constituent Assembly, even after acrimonious debates, did not designate any language as the National language but provided that Hindi would be the

official language of the Union and English, the associate official language for a period of 15 years from the adoption of the constitution. However, English continues to be the associate official language of the Union even after the specified time frame following a change to a policy of indefinite bilingualism in 1965. The constitution (Article 3) provided for the redrawing of the boundaries of the states in the country. The belief that states organized on the principle of linguistic homogeneity would bring citizens closer together, in bonds of unity and thereby enhance administration (Khubchandani 1991:31), led to the demand for linguistic states and consequent violent agitations.

The States Reorganization Act of 1956 led to linguistic states based on the linguistic principle that each State would have a majority language. The majority languages are generally the official languages. Some of these, coupled with numerical strength and political power are emerging as dominant languages in the states concerned, marginalizing other languages in the state. It is to be noted that the multilingual states of India also comprise of linguistic minorities ranging from 4 percent in Kerala to 37 percent in Manipur (Annamalai 2001: 70). Often the official language is treated as *de facto* national language of the state and the linguistic minorities are supposed to identify themselves with it. The acquisition of these languages is becoming a prerequisite to social, occupational/economic and political mobility in the respective states.

Two linguistic behaviours characterize the responses of the linguistic minorities. One is assimilation with the dominant language in the public sphere (educationally, economically, politically) and restricting the use of one's own language to the domain of one's own home and intimate informal groups so as to attain upward mobility. Tribals in the Jharkand area, for instance, proudly shift to the dominant language of the area, that is, Hindi, since learning Hindi is seen as moving towards progress and prosperity (Abbi 2000: 21). The other is dissimilation, asserting one's separate linguistic and cultural identity. Such a response may range from functioning as a political pressure group in the democracy (demanding for instance education based on separate linguistic identity) to demanding a separate state with full political and administrative autonomy. The tribals of the Northeast region, especially the Bodos, Nagas and the Mizos, are proud of their languages and have had language movements demanding that they be included in the VIII Schedule (*ibid.*: 21). Often, however, the 'use of language for separate identity and political advantage is largely symbolic ... because it demands allegiance to the mother tongue from the members of the linguistic minority community but does not make any serious effort to increase its use or competence in the community' (Annamalai 2001: 71). The vociferous demands of the linguistic minorities for education in

the mother tongue is to secure a 'statutory status symbolically' for the language but not to benefit their children's education. The minorities instead of making use of the mother tongue choose English to improve their competitive edge. According to Krishna, as of 1991, in fact less than 50 languages were used as media of instruction at the primary level (Krishna 1991:91).

Apart from concern for people's linguistic specificities, mother tongue is supposed to act as a bridge between home and school languages. However, in multilingual India, with over 1652 mother tongues and the widespread linguistic hierarchization only a few children are privileged to study in their mother tongue in the strict and specific sense of the term meaning language spoken from the cradle or in the household. The others have to manage in schools with another language or a standardized form of the spoken variety as medium of instruction. The elite of the linguistic majority community also largely limit themselves to the symbolic demand rather than the instrumental and real use of the mother tongue medium of education (*ibid.*: 71; Singh 2000: 142).

In this context the distinction 'cultural domination' and 'symbolic domination' (Singh 2000: 167) is of analytic significance. 'Cultural domination ... implies depth of support in a certain community for accepting the legitimacy of a culture trait such as language. Symbolic domination... means the degree of prestige accorded to the same culture trait within the community or outside'. Languages may enjoy state patronage and cultural domination but may suffer erosion in symbolic domination due to the ascendance of English. For Singh (2000: 167), this is the result of 'their (*official state languages*) precarious linkages with the market, now in the process of economic globalization'. Globalization affects the linguistic behaviour of the people engendering a contradictory situation: on the one hand, at the instrumental level, it speeds up the process of symbolic domination of languages; on the other hand, it 'enkindles sharp consciousness of the local, regional or ethnic identities' (Singh: 2000:171).

The linguistic majority community due to identity politics or perhaps, financial difficulties or some other circumstances opt for the dominant official language of the state as the first language at the primary level. This is true of Goa. In Goa, due to financial difficulties, many parents of children belonging to majority linguistic community admit their children into government aided primary schools conducted in locally dominant languages. While grants-in-aid are provided to primary schools conducted in regional languages, English medium primary schools are not given any government grants. In Karnataka too, 'a vast majority of the students including minorities ... opt for Kannada (by volition or by force of circumstances) as the first language from the primary

level (Annamalai 2001: 165). Economically advanced classes, as well as mobility-oriented section of the middle class parents belonging to both majority and minority linguistic community, opts for English primary education for their children. Thus, apart from financial constraints, identity considerations as well as mobility aspirations determine the linguistic choice in the domain of primary education. By identity consideration, are meant primordial identifications, which emerge from one's principal cultural identity and are found 'in the unconscious realm of the adult personality' (Newman 2001:155) pulling people towards language preservation. Mobility aspirations engender instrumental identification, which is chosen out of a large number of possible cultural identities because it seems to offer the greatest chance of political and economic success. The latter type of identification propels people toward language assimilation. Referring to the tendency towards linguistic assimilation among many Indians, Annamalai (2000: 5) writes that 'the common trend in India is for the language of material advancement to be added to the language of cultural identity and rootedness and not to replace it'.

Arel (2002:93), describing the reactions to people adding more languages to their linguistic repertoire, observes:

'Nationalists portray this linguistic assimilation as forced, unnatural and fundamentally illegitimate, the result of destructive policies by the "imperialist" state. Yet from a comparative standpoint, linguistic assimilation is a "normal" occurrence: not in the sense that most people assimilate, but in that, in most national groups whose language is socially less prestigious, and therefore less useful for social advancement, there are individuals who choose to assimilate'.

Education Policy and Dual System of Schooling

More than 50 years have elapsed since the creation of the linguistic states. The language policies in the states which aimed at replacing English with regional languages have not succeeded. On the contrary, due to a number of factors - unscientific implementation of the regional language policies, the government's failure to provide adequate facilities for mother tongue education, identity considerations and mobility aspirations - there has emerged in both urban and rural India, a dual system of schooling.

The privately owned school system caters to those who can afford paying high fees and donations. Nursery and primary schools belonging to this system have mushroomed everywhere with English as medium of instruction.

The elite generally patronize these English medium private schools where children are often discouraged from speaking the home language. The home language is rejected and 'ironically restricted to the uplift of the masses'. The government owned schools conduct schooling through the regional languages or the mother tongue. They are the only alternative for the vast majority of masses incapable of admitting their children in the expensive, privately owned and managed, schools.

In Goa in the year 1990, the government introduced the New Education Policy, making it mandatory for all government-aided primary schools to teach in the mother tongue or the regional languages. Primary schools that did not make a switch from English to the mother tongue or some regional language were refused grants-in-aid. It is to be noted that 'over 40 percent of the children in primary schools studied in English medium in 1989-90 (Botelho2002: 224). However, the policy introduced to encourage primary schools in regional media and in a way to stifle English medium primary schools has not succeeded in obstructing the proliferation of newer English medium primary schools all over Goa. Despite the exorbitant fees and hefty donations at the point of admission (ranging from Rs. 5000/- to Rs. 50000/-) enrolment in these privately owned schools escalates rapidly.

From the time of liberation in 1961, up to 1990, the year the New Education Policy was introduced in Goa, a considerable section of the Goan population studied in English medium primary schools. The New Education Policy seems to have undermined the fact that a majority of the English medium educated parents of the post-liberation era would want their children to study in English medium schools. In a survey conducted in 2002 (involving 810 respondents) data indicated a 'pronounced preference for English medium primary education with 65.56 percent favouring it as against 15.06 and 12.72 percent preferring Konkani and Marathi respectively' (Botelho2002: 231). Preference and desire to enroll their children into English medium schools, however, do not always materialize since, especially, financial constraints force a vast majority of parents to seek admission for their wards in Government owned schools.

A study (Singh and Sridhar 2002), examining disparities across 54 government and 48 private schools in Uttar Pradesh with respect to various aspects remarks the following as regards the demographic patterns: 'we observe declines for government schools whereas private recognized schools experienced growth over the period' (*ibid.*: 4230). They explain the decline thus: 'Nowadays, schools are run like companies. Parents and their children are customers, who prefer high product quality and customer service. Private unrecognized schools equipped with better infrastructure/or using better

classroom procedures to teach children attract more students than their counterparts'. The teachers from government schools opined that English taught in private schools pulled the children to private schools (*ibid.*: 4231). Yet another study indicates 'growth of, and enrolment in, private schools' (Ramachandran and Saihjee 2002). Private schools according to the above study constitute five to ten percent of primary schools in Karnataka, Haryana, Uttar Pradesh, Andhra Pradesh, Madhya Pradesh and Maharashtra. According to the World Bank, 'six percent of rural children and 19 percent of urban children at the primary stage are studying in private unaided schools; this proportion goes up when we include the 31 percent children who are studying in private aided schools (World Bank 2001 cited in *ibid.*: 1603). Writing about the dual system of schooling Shukla (1996: 1349) observed: '(p)rivitization and separate schools for the well-off are being resorted to in increasing measure, with the English/non-English distinction tending to coincide with the private/public management dichotomy. A divided system leading to an even more divided society appears inevitable'.

While Shukla suggests that the dual system leads to an even more divided society, Jayaram (1977: 185) indicated that '(a)n overwhelming majority of students, in higher education have had English medium education and in privately managed schools' (See also Chitnis 1999: 378). By implication, those with access to English medium education in schools privately owned and managed, in contrast to regional language school owned by government, have better chances to join the ranks of higher education. Studies have shown that educational inequalities and social inequalities are intimately related. '(E)ducational inequalities become, in effect, fundamentally determinant of all social inequalities' (Floud and Halsey 1965: 3-4 cited in *ibid.*: 170). Inequality of educational opportunities only seems to help 'status retention' (Jayaram 1977: 186) or status enhancement on the part of the socially, economically, and educationally privileged, and perpetuation of inequalities.

The two systems of education - English and Vernacular medium reproducing social hierarchies and inequalities - have established themselves in modern India. However, there seems to exist no pedagogic or political justification for the existence and continuance of these systems. Dual system only promotes uneven empowerment and widens social cleavages. With English medium education comes symbolic and material power in the form of greater recognition enjoyed by English speakers and well-paid jobs, while vernacular language students suffer humiliation and peripheralisation (Faust and Nagar 2001:2880).

Whether it is an outcome of the unscientific implementation of the education policy which adopted the regional language only as optional media,

beside English, up to the undergraduate level or whether it is due to the failure of the state governments to persuade state administration, industry and business houses to transact business in dominant regional languages, the dual system of education is a reality entrenched in modern India. The need of the hour seems to be to consider abolishing or offering alternatives to the dual system. Or suggesting measures to make the English medium privately owned schools also accessible to the larger section of the Indian population.

By Way of Conclusion

One of the major objectives of the National Policy of Education (NPE) in India has been the equalization of educational opportunities among the different sections of the Indian citizenry. The NPE states 'The New Policy will lay special emphasis on the removal of disparities and to equalize educational opportunity by attending to the specific needs of those who have been denied equality so far' (NPE 1986 - modifications undertaken in 1992).

The dual system of schooling blocks the entry of the marginalized into the mainstream. Equality of opportunity to study in English-medium-quality-schools, invariably a springboard to upward mobility, has not yet become a reality to a vast majority of the Indian population. It is high time that a realistic National Education Policy to control, if not eradicate, the dysfunctions of the dual system is introduced. At this juncture introduction of the regional language as the sole medium of education at the primary level does not seem to be practicable nor does there seem to be a possibility in the near future. Attempts in that direction will be met with stiff resistance.

The economically backward classes have been encouraged to pursue their studies at secondary and tertiary levels of education through the sops of reservation. Its extension to primary education might work towards guaranteeing the effects of education to the less privileged. Protective discrimination, despite its many failures at the implementation level, has considerably benefited the deprived sections of the society. Reservation policy is not a panacea for the ills of the dual system but it cannot be denied that it will effect a greater democratization of the Indian education institutions at the elementary level. A large proportion of scheduled castes, scheduled tribes and 'other backward classes' categories, in particular, are first generation learners having no opportunities at home to learn English, a prerequisite to cope with the demands of secondary school or later the higher education. However, the elite and the votaries of the mother/regional language extolling the virtues of instruction in the mother tongue, often patronize the English schools by admitting their children into these much sought after schools. Thus 'there

emerge two clear divisions in society – based essentially on language ability. Naturally the deprived also end up having no access to high paid non-state sector jobs which will continue to be the haven of the privileged' (Natraj 1999: 2385).

Extension of the reservation policy, available for the scheduled castes, scheduled tribes and other backward classes in different areas, also to admission at the entry point of the primary stage, in private schools with English medium education, will make quality education a reality to the different poorer sections of the population. Mandatory reservation of a certain percentage of seats to children of economically backward classes in all privately owned and managed English medium early schools and strict monitoring of its implementation at every level, will substantially contribute to the bridging of the existing divide between the privileged elite and common people. Or else, while prescriptions of the theory of instruction in the mother tongue are freely doled out and implemented through government schools and the elite perceptively patronize English medium schools, the educational problems of the deprived will be increasingly compounded.

Notes

Dharampal (1981: 14) and Di Bona (1983: 2) do not agree with the view that education in pre-British India was limited to the Brahmins. According to Di Bona, a striking feature of pre-British Indian education was that 'it was not undemocratic'. He also disagrees with the commonly held belief that in India only Brahmins are the teachers and cites one case wherein Kayastha teachers outnumbered Brahmin teachers. The picture that Dharampal provides is in sharp contrast to many scholarly pronouncements assuming that education was limited to the twice-born among the Hindus and among the Muslims to the ruling elite. According to him the actual situation was different, with, for instance, 'Soodras and the castes considered below them' predominating in thousands in the 'then still-existing schools in the districts of Madras Presidency and two districts of Bihar'.

References

- Abbi, Anvita. 2000. 'Forgotten Indian heritage languages of minority communities of India' in Omkar N. Koul and L. Devaki (eds.): *Linguistic heritage of India and Asia*. Mysore: CIIL.
- Annamalai, E. 2000. 'The linguistic heritage of India' in Omkar N. Koul and L. Devaki (eds.): *Linguistic heritage of India and Asia*. Mysore: CIIL.
- , 2001. *Managing multilingualism in India: Political and linguistic manifestations*. New Delhi: Sage Publications.

- Arel, Dominique. 2002. 'Language categories in censuses: Backward-looking or forward-looking?' in David I. Kertzer and Dominique Arel (eds.): *Census and identity: The politics of race, ethnicity, and language in national censuses*. Cambridge: Cambridge University Press, pp.92-100.
- Botelho, Afonso. 2002. 'Primary education and language: Colonial legacy and post-colonial conflicts. *Journal of social and economic change*, IV (2): 213-234.
- Bottomore, T. B. 1975. *Sociology: A guide to problems and literature*. Bombay: Blackie & Son (India) Ltd.
- Chitnis, Suma. 1999. 'The role of schools and universities in promoting a common culture and social development' in V. A. Pai Panandiker and Ashis Nandi (eds.): *Contemporary India* (364-394). New Delhi: McGraw – Hill. Publishing Company Ltd.
- Dasgupta, P. 1993. *The otherness of English: India's auntie tongue syndrome*. New Delhi: Sage Publications.
- Desai, A. R. 1991. *Social background of Indian nationalism*. Bombay: Popular Prakashan.
- Dharampal. 1983. *The beautiful tree: The indigenous Indian education in the eighteenth century*. New Delhi: Biblia Implex Private Limited.
- Di Bona, Joseph (ed.) 1983. *One teacher, one school*. New Delhi: Biblia Implex Pvt. Ltd.
- Faust D. and R. Nagar. 2001. 'Politics of development in post-colonial India: English medium education and social fracturing', *Economic and political weekly*, 36 (30): 2878-2883.
- Government of India. 1986. *National policy on education. 1986. (Modifications undertaken in 1992)*. New Delhi: Ministry of Human Resource, Department of Education.
- Jayaram, N. 1977. 'Higher education as status stabilizer: Students in Bangalore. *Contributions to sociology*, 11 (1).
- Khubchandani, L. M 1991. *Language, culture and nation-building: Challenges of modernization*. New Delhi: Manohar Publications.
- 1997. *Revisualizing boundaries. A plurilingual ethos*. New Delhi: Sage Publications.
- Krishna, Sumi. 1991. *India's living languages*. New Delhi: Allied Publishers.
- Krishnamurti, Bh. 1998. *Language, education and society*. New Delhi: Sage Publications.
- Newman, R. S. 2001. *Of umbrellas, goddesses and dreams: Essays on Goan culture and society*. Mapusa: Other India Press.

-
- Ramachandran, V. A. Saihjee. 2002. 'The new segregation: Reflection on gender and equity in primary education', *Economic and political weekly*, 37 (41): 4229-4238.
- Shukla, S. 1996. 'From pre-colonial to post-colonial: Educational transitions in South Asia', *Economic and political weekly*, 31 (22): 1344-1349).
- Singh, S. And K. S. Sridhar. 2002. 'Government and private schools: Trends in enrolment and retention', *Economic and political weekly*, 37 (41): 4229-4238.
- Singh, Yogendra. 2000. *Culture change in India: Identity and globalization*. New Delhi: Rawat Publications.

A STUDY OF ANXIETY OF SEAMEN IN GOA

Fr. Jeronimo D' Silva

Lecturer

Department of Psychology

The present study explores the levels of anxiety of seamen towards their job. The sample consisted of 30 individuals who were divided into two groups with equal number, 15 married seamen and 15 bachelor seamen. The subjects were administered 'Job Anxiety Scale' by A.K. Shrivastava. This study depicted that married seamen have high job anxiety as compared to that of the bachelors. The study also revealed that seamen who occupy high posts have average or less anxiety as compared to the ones who occupy lower posts on the boat cruises.

Introduction

Ours is said to be the age of anxiety. In every part of the society, we can see people experiencing anxiety. Actually in modern era, anxiety is a common symptom which is found in every individual, society and organisation of the world. Hence, be it an institution, an organization or an industry, all of them have realized the need to provide better working conditions, in order to reduce the anxiety of the employees.

Spielberger has defined anxiety as 'a state of arousal caused by threat to well being. State means a condition involving the entire organism whereas arousal means a condition of tension, unrest or uneasiness or a readiness to act according to the response'. (Shrivastava 1986:2) In the context of 'Job Anxiety', it is apt to mention that threat means anticipation of pain or danger or serious interference with goal seeking activities. According to Freud, "anxiety is an unpleasant effect of state of condition" Anxiety is the most common of psychiatric complaints. Prolonged anxiety problems can disrupt work, interpersonal relationships, and sleep. When anxiety reaches the heights of panic, it can be debilitating. However, anxiety is quite treatable and cognitive and behaviour therapies are some of the methods which are being used to reduce the level of anxiety or help to deal with the anxiety.

It is useful to break anxiety down into its symptom categories so that the tangible aspects can be identified. The emotional component of anxiety is fear. Nervousness is used to describe low level of anxious mood, and at the

opposite extreme, panic, a profound blast of anxious affect. The physical symptoms of anxiety are myriad; shortness of breath, rapid heart rate, shakiness, dizziness, unsteadiness, numbness and tingling, lightheadedness, feelings of choking, sweating. Most people reckon the physical symptoms to be the most distressing part of the anxiety experience. The cognitive symptoms include the anxiety strongly influencing the attention so that one's focus becomes narrowly directed toward oneself. With regard to memory retrieval, anxiety creates significant blocking, because the individual thinks only of the events or situations that worry him the most. When the person is anxious, his automatic thoughts and mental images tend to be catastrophic. The behavioural symptoms include fight or flight in terms of survival that we have in the circuitry of our brains. Anxiety alerts us to danger and makes us more likely to escape from it. Some amount of stress or anxiety is necessary to raise the level of performance; however the performance will fall down if the individual goes beyond the optimum level of anxiety.

In this world of anxiety individuals have to make a lot of decisions. One of the most important decisions which we make in our lives is the choice of a career. We often make that choice several times over the life span. Few years back, it was quite customary to follow the footsteps of the parents as far as profession was concerned. But today the trend has changed. Some parents themselves advise their children not to take up their profession. Obviously no job or career is ideal. The consequences of our decision can affect every aspect of our lives and can stay with us as long as we are in the career. There are many factors which determine career choice, viz. self concept and needs, psychological traits, cultural and sociological factors and family influences. One way to adopt a more systematic approach to decision making and making accurate self assessments is exploring available careers. Vocational choice is simply an extension of one's self concept and the need for a job.

A job is a group of positions which are identical with respect to their major or significant tasks and sufficiently alike to justify their being covered by a single analysis. There may be one or many persons employed for the same job. Job is normally made up of a number of similar positions in a given company. However a job may involve only one such position at a given time, e.g. a store may have one retail hardware clerk or many depending on the size of the store and the scope of the business. A job description is a written statement of the tasks duties and behaviours required in a given job, plus the personal qualification that all candidates for the job must possess.

Job satisfaction refers to the positive and negative feelings and attitudes we hold about the job. Job satisfaction is a stable enduring characteristic, independent of the feature of the job, change in job status, pay, and working

conditions. It depends on many work related factors such as age, health, length of job experience, emotional stability, and social status. Many conditions of the job and the workplace affect job satisfaction. By redesigning job and work environment it is possible for management to increase job satisfaction and productivity. Jobs can be redesigned to maximize opportunities to satisfy the needs for achievement, self actualization and personal growth. Jobs can be enriched to enhance the motivator needs and the core job characteristics. Personal characteristics linked with job satisfaction included among others are age, gender, race, cognitive ability, job experience, use of skills, job congruence, organizational justice and personality.

Some Elements of the Job Description

Job Titles: It contains a specific job title or name. These titles are necessary for internal purposes, to facilitate the government in knowing the firms activities and for the purpose of data collection.

Work Activities and Procedures: They will include tasks and duties to be performed on the job, the materials used, the machinery operated, the kinds of formal interaction with other workers required and the nature of the supervision given or received.

Physical Environment: It includes a complete description of the physical working conditions where the work is to be performed. Conditions include normal heat, lighting, noise levels and ventilation.

Social Environment: Knowledge of the social environment can be extremely helpful in minimizing disparities between prescription of this kind and the actual behaviour. Social environment will include time of work, work location, availability of recreation and cooperation with superiors.

Conditions of Employment: It is concerned with the place of the job in the formal organization, working hours, method of payment, permanency of the positions, seasonal or part time, nature of the job and opportunities for promotions.

Objective

To measure the levels of anxiety among seamen - bachelors and married.

Methodology

Sample: The study was conducted on 30 individuals, comprising seamen who are bachelors and married seamen. Each group consisted of 15 individuals.

Tool: Job Anxiety Scale devised by A. K. Shrivastava was used to study to levels of anxiety. The scale consisted of 49 statements. The subject has to write 'yes' if he agrees with the statements and write 'no' if he disagrees with the statements. This scale assesses the level of anxiety pertaining to the various constituents of the job life such as job security, recognition and fair evaluation, human relationship at work, rewards and punishment, self esteem and status of the job, future prospects and capacity and confidence to shoulder job responsibilities.

Collection of Data: After the rapport was established, proper instructions were given to the sample and then the job anxiety scale was administered to them individually.

Data Analysis: Once the subject finished answering the scale, scoring was done according to scoring procedures. The total score was obtained and then mean, as well as standard deviation were calculated (Table 2). Table 3 shows the calculated percentages of the two groups.

Results and Discussions

Table 1 depicts the job anxiety score and mean obtained by the married as well as the bachelor seamen and the interpretation of the score obtained by every subject. The calculated mean depicts that on an average, married seamen have high job anxiety as compared to the bachelor seamen who have an average level of anxiety. From the calculated percentages it is clear that the married seamen have extremely high job anxiety while the bachelors do not suffer from extremely high job anxiety. Secondly married seamen have shown high job anxiety compared to bachelor seamen and finally the bachelor seamen have obtained high percentage on average level of anxiety while the married seamen have obtained low percentage on average level of anxiety. Hence it is clear from the data obtained that married seamen do suffer from high job anxiety as compared to bachelor or bachelor seamen.

Conclusion

The objective of the present study was to find out as to who suffers more from anxiety, the married seamen or the bachelor seamen. The results of the study clearly revealed that there is a difference between the two groups as far as the anxiety is concerned and that the anxiety levels are more among the married seamen than among the bachelors.

However one can conclude saying that the anxiety is more among the married seamen because they have a greater responsibility of raising up the

family, especially providing the needs of the family members at regular interval, which is not the case with the bachelors. Another important observation one could note down is that in general, seamen who hold higher post has average or less anxiety compared to seamen who occupy lower posts.

The findings that are arrived at are very useful in motivating the seamen especially the younger generation so that they do not become victims of anxiety disorder and thereby helping them to maintain a friendly environment at the work place. The findings also highlight the need to encourage seamen to aspire for the higher profile jobs since they have less anxiety levels.

It is advisable not to generalize these findings due to the size of the sample, but it should motivate and encourage the reader to explore further in this research area.

Table 1. JOB ANXIETY SCORE OF 2 GROUPS

Sr. No.	Job Anxiety Scores married seamen	Interpretation	Job Anxiety Scores bachelor seamen	Interpretation
1	80	Extremely High Job Anxiety	56	Average level of anxiety
2	74	High Job Anxiety	61	High Job Anxiety
3	66	High Job Anxiety	51	Average level of anxiety
4	79	Extremely High Job Anxiety	61	High Job Anxiety
5	64	High Job Anxiety	56	Average level of anxiety
6	83	Extremely High Job Anxiety	59	High Job Anxiety
7	55	Average Level of Anxiety	60	High Job Anxiety
8	71	High Job Anxiety	51	Average level of anxiety
9	60	High Job Anxiety	59	High Job Anxiety
10	66	High Job Anxiety	61	High Job Anxiety
11	61	High Job Anxiety	57	Average level of anxiety
12	71	High Job Anxiety	56	Average level of anxiety
13	84	Extremely High Job Anxiety	57	Average level of anxiety
14	55	Average level of	58	Average level of anxiety
15	63	High Job Anxiety	56	Average level of anxiety
Total	1032		859	
Mean	68.8		57.26	

SCORE
1. 77-92
2. 59-76
3. 45-58

INTERPRETATION
extremely high job anxiety
high job anxiety
average level of job anxiety

Table 2. THE MEAN AND STANDARD DEVIATION OF MARRIED AND BACHELOR SEAMEN

Category	Mean	SD
Married Seamen	68.8	6.79
Bachelor Seamen	57.26	3.17

Bar Graph 1. THE MEAN AND STANDARD DEVIATION OF THE LEVELS OF ANXIETY

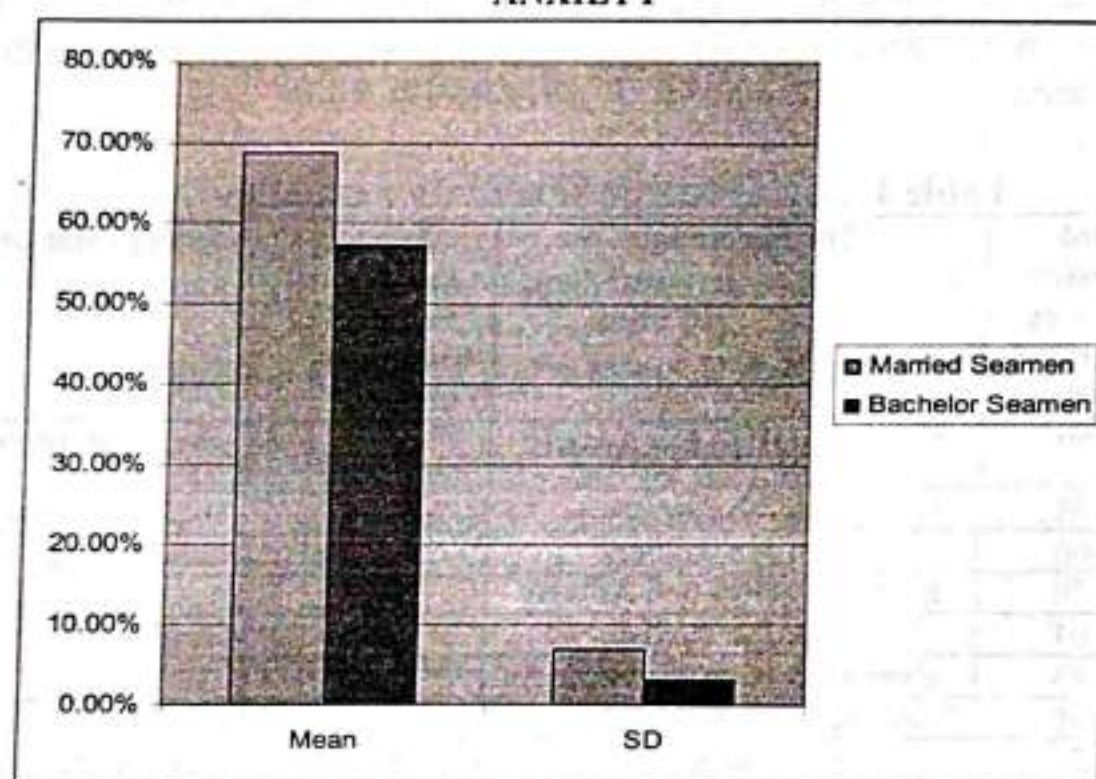
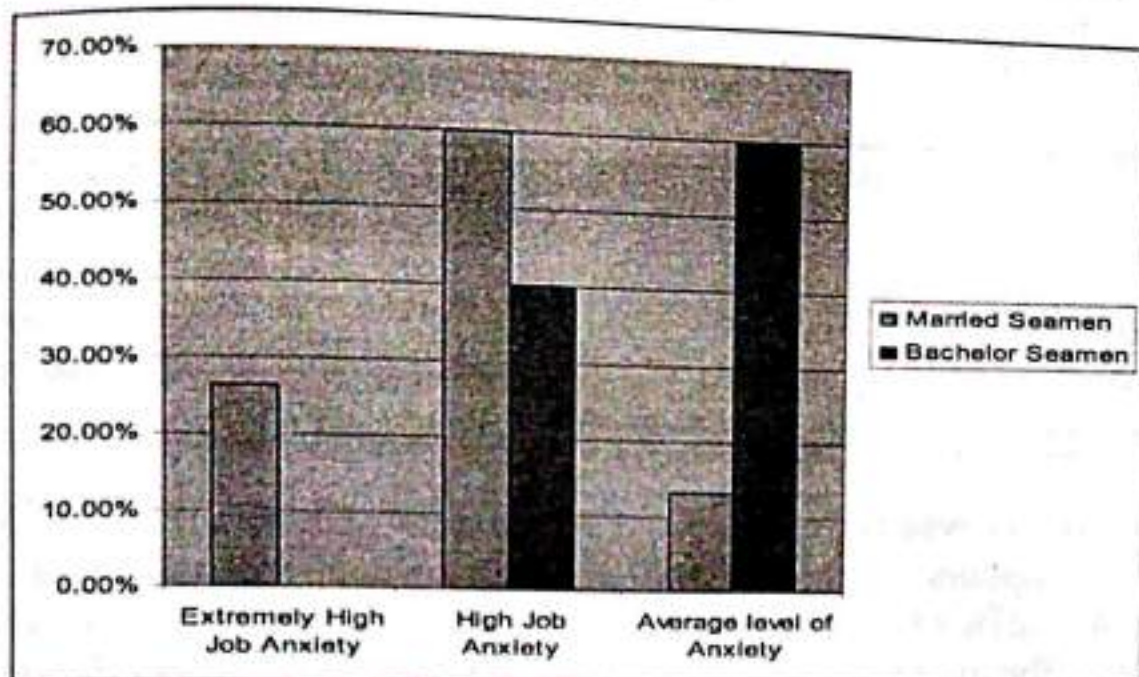


Table 3. PERCENTAGES OF INDIVIDUALS SHOWING DIFFERENT LEVELS OF ANXIETY

Groups	Extremely High Job Anxiety	High Job Anxiety	Average level of Anxiety
Married Seamen	26.33%	60%	13.33%
Bachelor Seamen	0%	40%	60%

Bar Graph 2. PERCENTAGES OF THE LEVELS OF ANXIETY



References

- Jacob, Mani. 2002. *Resource book for value education*. New Delhi: Institute of Value Education.
- McCormick Ernest J. and Ilgen Daniel. 1987. *Industrial psychology*. New Delhi: Prentice hall of India Private Limited.
- Miner, John B. 1992. *Industrial organizational psychology*. New Delhi: McGraw Hill.
- Shrivastava, A. K. 1986. *Manual for job anxiety scale*. Agra: Psychological Research Cell.

TELEVISION CABLE SERVICES IN SOUTH GOA – A STUDY

Mr. Jim Barreto

HOD (Selection Grade)

Department of Commerce

This paper is divided into three sections. Section one deals with the evolution of television cable services in India, Goa and the world at large. The objectives, importance, methodology and limitations of the study are provided in Section two. The findings and suggestions vis-à-vis cable television scenario in Goa are discussed in Section three.

Cable television was introduced in Pennsylvania, USA in 1949 by Mr. John Watson an appliance storeowner in a small town of Mahanoy city. Watson was having difficulty in selling television sets to local residents because the reception in the area was poor due to the mountainous terrain of the area.

Mahanoy was located in a valley almost 90 miles from the Philadelphia television transmitters, so the signals could not pass through the mountain and clear reception was virtually impossible, except on the ridges outside the town. To solve this problem, Mr. Watson put an antenna on the top of the nearby mountain. Television signals were received and transported over twin-lead antenna wire down to his store. Once people saw these early results, television sales improved. Watson worked to improve the picture quality by using coaxial cables and self manufactured boosters (amplifiers) to bring cable television to homes of customers who brought TV sets.

In the early 1950s, television was fairly new. Though it had not yet become popular, city department stores displayed many different TVs for sale. And like an apartment house where every resident had his or her own television, the roofs of the stores were beginning to resemble forests of TV antennas.

Milton Jerrold Shapp, who later became the Governor of Pennsylvania developed a master television (MSTV) system to eliminate the forest of antennas for department's stores and apartment buildings by using coaxial cable and signal boosters capable of carrying multiple signals at once.

HBO (Home Box Office) was the first channel to go "pay" in November 1972 when John Watson's company, Service Electric, offered HBO over its cable system in Wilkes Barre.

Cable television also called cable vision is a system that distributes television signals by means of coaxial cables. Commonly known as

community antenna television (CATV), these cable systems use a community antenna to receive broadcast signals often from satellites, which they then retransmit via coaxial cables to homes and establishment in the local area subscribing to the service. Subscribers pay a specified monthly service charge in addition to an initial installation fee.

Since mid 1970s there has been a proliferation of cable television systems offering special services bringing high quality signals to subscribers. Some of these systems can deliver 100 or more channels because they distribute signals occurring within the normal television broadcast band as well as non-broadcast frequencies. Subscribers receive signals of non-broadcast frequencies from distant cities, continuous weather and stock market reports, cultural events and programmes produced by community groups and educational institutions. Many cable operators reserve channels for coverage of city council meetings and other local government activities, whereas some provide access to pay TV program material such as recent motion picture and sport events not telecast by network and local broadcasters.

Cable Television in India

Cable television is still undeveloped in India, unlike most western countries where cable operations include some amount of independent programming, this subscriber service in India is limited to relays of satellite broadcast and video-taped runs of popular films. Government policy on this sector is being formulated.

The advent of satellite broadcast and cable television has opened up enormous opportunities for television producers to fill the broadcast time. While international television production companies have set up shops in India employing local talent, there are also numerous large and small production companies providing a variety of programmes from documentary and current affairs to music, entertainment and soap operas for national or international networks. Most of these companies employ full time creative talent for production and direction, while taking on freelancers for the technical aspects of camera work, editing and graphics. This has also resulted in the mushrooming of video studios with sophisticated equipment providing a range of services.

Cable Television in Goa

Cable television in Goa is not very old. Moraes Cable network was the first to be set up in the year 1986 in Margao town. Thereafter, cable television spread

to other towns in Goa like Panjim, Mapusa, Vasco, etc. In the year 2000 there were about 50 main cable operators in Goa. However, the number has shrunk to 37. The All Goa Cable Head End Owners Association has 37 registered members.

Objectives

Cable television has come a long way from entertainment to an education medium for today's youth. Prior to cable television only few channels were available. It has changed the television scenario. A variety of channels ranging from entertainment, education, news, fashion, sports, etc., are available on cable television. It is also a means of employment to unemployed youth. More and more youth in Goa are starting cable networks. This can be proved from the fact that most of the cable operators in Goa are between 20-35 years age group.

The specific objectives of the study are as follows:

- To trace the history of television cable services in Goa.
- To study the reach / coverage of television cable services in South Goa.
- To study the subscriber base of TV cable services in South Goa.
- To study the pricing strategies of cable operators in South Goa.
- To study the promotional strategies adopted by cable operators in South Goa.
- To highlight the various services offered by cable operators in South Goa.
- To study the type of staff employed by cable operators in South Goa.
- To study the type of equipment used by cable operators in South Goa.

Methodology

For the purpose of the study, two types of data were collected:

(a) Secondary Data :-

Secondary data was collected from the books, encyclopedia as well as through the internet.

(b) Primary Data :-

A random sample of five cable operators namely, Margao Citi Cable, FM Satellite Service, Kassonics, CNV Cable Network, Mount Mary Cable Network and United Cable Network from the areas of Margao, Navelim, Macazana, Vasco and Sanguem were selected.

The primary data was then collected by preparing a detailed questionnaire and conducting a personal interview with the proprietors of the five selected cable TV networks. A wide variety of questions

covering various aspects of TV cable operations were asked and information was obtained.

Limitations

- o The study is restricted to five selected TV cable operators from South Goa.
- o The study is restricted to the talukas of Salcete, Mormugao and Sanguem.

Findings

- Cable television is comparatively new to Goa as compared to its introduction in the USA. In Goa, cable television was only introduced in the late 80's.
- Cable television has still not reached the vast television viewers in the rural areas of the various talukas of South Goa.
- There is intense competition among cable operators especially in Margao and Vasco towns, so much so that the rivalry between cable operators have resulted in undesirable practices like creation of dummy operators and undercutting.
- Cable operators adopt different pricing strategies in different regions. Cable charges differ from area to area. Prices are usually high in well developed areas, whereas in underdeveloped areas prices are comparatively less.
- Cable television operations are run on sole proprietorship as well as on partnership basis.
- Most of the cable operators do not follow any promotion method to promote their services.
- Cable operators employ different types of employees like technicians, office staff, helpers and collection boys.
- Cable operators in Goa can be divided into two categories –
- Main cable operators and sub-operators.
- Main cable operators are those who set up their own control room and purchase their own equipment.
- Sub operators are those operators who take the input from the main operators and provide connection to the people.
- Cable operators telecast a variety of programmes on their private advertising channel such as movies, dramas, local sports/cultural events.
- Some cable operators give discount to their customers if the installments of a year are paid in advance.

- Most of the cable operators are using digital receivers to receive signals. These signals are reconverted into analog mode and transmitted.
- In order to minimize competition, some cable operators have tactical understanding among themselves. Certain areas are demarcated and rival operators cannot venture in those areas.
- Occurrence of faults on cable lines is a major problem faced by cable operators. These faults may occur due to natural calamities like lightning, falling of trees on cable lines or due to damage by rival cable operators.
- Cable operators provide a wide variety of channels to their customers, e.g. News, entertainment, sports, religious, financial, etc. The average number of channels provided by the cable operators is fifty.
- Cable operators promote various products and services on their networks like ambulance services, educational institutions, payment of electricity and water bills. Besides, these cable operators also show birthday advertisements and funeral announcements to their viewers.
- Promotion of local products and services is a good source of revenue to the cable operators.

Suggestions for Cable Operators to Improve Their Cable Services

- The cable operators should come together and form a common cable network/single network. This will eliminate competition and every cable operator will have a fair share in the earnings based upon their investment.
- Cable television Association should be strengthened. Cable operators should come together for their common cause and put forward their problems and demands before the government.
- Cable operators should work out a formula with satellite channels to reduce pay channel rates. This will increase demand for cable television.
- Cable operators should redress the complaints of their subscribers quickly. This will help them to win customers' confidence.

References

Goetz, W. Philip (ed.). 1990. *The New Encyclopaedia Britannica (Volume II)*, Encyclopaedia Britannica, Inc (15th Edition).

Groman, Jeff, Howard Timms and Janet Moore. 1998. *Professional and technical careers – A guide from world book*. World book international.

www.pcta.com

www.scatinidia.com

MIGRATION OF FISH FROM COASTAL AREA INFLUENCED BY POLLUTION: A CASE STUDY IN GOA

Mrs. Neeta Mazumdar

Lecturer (Selection Grade)

Department of Mathematics

Fishes have been living on this earth for almost 500 million years and occupy all possible niches of the sea and vary greatly in their structure and habitat. The concern today is human-made disasters in respect of climate change, sea level rise and coastal erosion which is slowly and steadily causing a serious threat to marine life. In Goa, fish production is a vital element of the human food supply. Fishing is a traditional business that has developed from small fishing boats and canoes to mechanized trawlers. The paper aims at studying the behavior of fish in coastal waters and effect of pollution on marine life. The model of migration of Mackerels, a pelagic fish that takes an extensive migration in the coast of Arabian Sea is discussed.

Introduction

Oceans and sea cover more than two thirds of the surface of the earth. As a result, fish and other marine products form an important source of food, in particular, protein for mankind. The demand for marine product is rising day-by-day to supplement food protein required for human beings as land for agriculture is being overexploited leading to fall in land productivity.

Fishes have been living on this earth for almost 500 million years and occupy all possible niches of the sea and vary greatly in their structure and habitat. The concern today is human-made disasters in respect of climate change, sea level rise and coastal erosion which is slowly and steadily causing a serious threat to marine life. It is likely to bring more coastal areas under inundation resulting in soil salinity, which may not be suitable for many species of fishes, because the eggs and young fish larvae require moderate temperature and particular external conditions and protection; fish larvae usually live in the planktons. The abundance of the planktons usually depends on the external factors like sunlight, salinity and temperature of water (Aoki 1982:1081-1088). In recent years pollution has increasingly caused negative effects on growth of plankton and the size of fish. This, in turn, has affected the fish larvae directly and has an indirect influence on the survival of

fish. There is an increasing evidence that the global climate change is already having a measurable biological impact.

Fishing technology has developed from small boats to swimming fish factories with sophisticated equipments for detecting, catching and processing fish. This development is pressurized and directed by an ever-increasing population with a high demand for food. Thus, in many areas, in particular, the traditional fishing areas i.e. in Northern Sea, the Baltic Sea or North Atlantic Ocean are over fished and a number of fish species are near extinct (Birnie 2006).

Goa has a coastline of 105 kms with life giving monsoons, which boosts the marine life. Its coastal ecosystem is at once the most fragile and the most threatened of the four Goan Ecozones. The food chain is relatively well known; the Planktons the smallest of the sea plants form the basic components of the food chain. The marine area contains many important marine habitats such as Coral Reefs and several islands including Anjediva and Bat Island. Coastal waters are a big source of marine and inland transport (Alvares 1996). With one natural harbour at Marmagao that caters to the barges and ships that export iron ores to Japan and other western countries, there are 5 fish landing centres (Jetties) that cater to the trawlers catching fish. While the Western Ghats are now completely protected zones, this is not the case with the coastal region which despite regulations, has continued to remain the frenzied focus of every new development from a five star hotel to aquaculture farms and golf courses.

For these reasons, the coastal belt has become a scene of one of the most execrable exchanges in Goa's history. Though sea is the source of all water that eventually falls over Goan Ecosystem as rain, it receives in return million of tones of human waste and toxic pollutants. Most of the marine habitats are still little understood by human beings and are therefore criminally assaulted through discharge of huge quantities of wastes from settled communities along the coast.

In Goa fish production is a vital element of the human food supply. Fishing is a traditional business that has developed from small fishing boats and canoes to mechanized trawlers. There are 11,944 people employed in fishing industry. Shrimp farming is the most lucrative business. For example, in 1998 shrimp catch was 2651 metric tons, which increased to 10,599 metric tons in 2005. Fish is also exported to boost the economy of the State. In 2005, value of marine fish landing was Rs.2.7 millions and the export was of Rs.6178 lakhs.

This development is due to the rising demand for fish caused by an increase in number of hotels and restaurants following the growth of tourism in

the State and exports. Some areas are over fished and due to pollution of the marine water number of fishes migrate to other coasts. Mackerel catch was 19,663 metric tons in 1998 is reduced to 6303 in 2006(Government of Goa 2001). It has been observed that some species of fish are almost extinct, e.g. Golden Anchovy fish catch which was 129 metric tones in 2002, is now reduced to mere 10 metric tones in 2005. Some other varieties of fish show a downward trend e.g.Sciaenoids fish and Butterfish catch, in 1998 was 3529 and 651metric tons is reduced to 2634 and 340 metric tons in 2005. Thus, there is shortfall of fish supply but as demand and price rises, export of fish to developing nations is increasing despite the low catch. Thus, putting this protein increasingly out of reach for low income families. For example the export of mackerels was 819metric tons in 1998 which earned Rs.168 lakhs and in 2006 the export was 1, 443metric tons earning Rs.19683 lakhs (*ibid.*).

If this trend continues there is serious threat to the employment within fisheries sector, especially for small-scale fisheries harvesting food for local markets.

The main reason for the decrease in fish catch is pollution of the marine water due to insufficiently treated sewage that is released from septic system on land and on ships and from agriculture. Contamination appears to be rising due to the continued use of chlorinated pesticides. Petroleum residues released regularly by shipping vessels and exploration operations are also responsible for contamination of the sea water. A variety of pathogenic organisms including viruses, bacteria, protozoa and parasitic worms exist in seawater causing disease in marine plants and fishes.

Mackerels (*Rastrelliger Kanagurta*) are species of pelagic, planktivorous fish. Change in their physical and biological environment profoundly affects their abundance, migration and growth. It plays a key role in the marine ecosystem in Goa.

Objectives

The paper enlists the following objectives:

- To study the behavior of fish in coastal waters and effect of pollution on marine life.
- To understand and quantify human impact on marine ecosystem including the living marine resources.
- Evaluate options for sustainable marine industry, especially fisheries.

Methodology

The system of ODE (Ordinary Differential Equation) is derived from a discrete system of Vivsek, Czir'ok (Hubbard 2004: 359-374) describing the migration of fish. Classes of linear and stationary solutions of ODE's are found and their stability explored using equivalent bifurcation theory. The model of migration of Mackerels, a pelagic fish that takes an extensive migration in the coast of Arabian Sea is discussed.

The internal dynamics of school of fish and migration of fish as a whole presents a fascinating problem with many applications. The individual fish tend to adjust, and speed, according to the direction (Arnold 1973).

The role of the Capelin (*Mallotus Villosusos*), a pelagic fish in the ecosystem in the Artic Sea around and North Iceland is discussed in Vilhjalmsen (Birni: 2006), Hubbard (Viscek 1995: 1226-1229) and Partridge (1982: 90-99) gives a brief description of the biology of the Capelin and its feeding and migration patterns that it covers hundred of kms. in a span of one year.

The migration of mackerels is not fundamentally different from the migration of other pelagic species of fish. Thus, the numerical model and questions asked about other migration.

When we have continuous model we can analytically find the stationary solutions and bifurcation of this set of solution to ODE, and use this analysis to predict the behavior of the discrete model under certain conditions. We can also simulate the data using both the results and compare the results, leading to firmer understanding of the model (Hubbard et al: 2004: 359-374). The ODE's are motivated by application to pelagic species of fish (Vilhj'almsson 1994: 281).

Discrete and Continuous Model

The two dimensional discrete model was introduced by Viscek et al in 1995 (Hubbard, S; 2004: 359-374) is very simple.

$$\begin{pmatrix} x_k(t + \Delta t) \\ y_k(t + \Delta t) \end{pmatrix} = \begin{pmatrix} x_k(t) \\ y_k(t) \end{pmatrix} + v_k(t) \begin{pmatrix} \cos \varphi(t) \\ \sin \varphi(t) \end{pmatrix} \Delta t \dots \dots \dots (1)$$

Here $(x_k(t), y_k(t))$ are the Cartesian coordinates of the k^{th} fish in the plane at time t and $(\cos \varphi_k(t), \sin \varphi_k(t))$ is the unit direction vector of its velocity. We can refer to it as direction below. Let N be the number of fish migrating at time t . The fish see other fish and sense each other through their lateral line,

either as a fluid motion or small pressure variations (Vicsek, T; 1995:1226-1229). This leads to alignment of the individual fish with the group and can be expressed as

$$\begin{pmatrix} \cos(\phi_k(t + \Delta t)) \\ \sin(\phi_k(t + \Delta t)) \end{pmatrix} = \frac{1}{N} \sum_{j=1}^N \begin{pmatrix} \cos \phi_j(t) \\ \sin \phi_j(t) \end{pmatrix} \dots\dots\dots (2)$$

$\forall k.$

Namely the direction is updated each time in iteration and the new direction of every fish becomes just the average of all the directions. Then according to the above model, each time iteration takes place, a new direction angle is computed, by averaging the direction of all fishes and the position of each fish is updated from its old position by adding the velocity, computed with the new direction times the length of the time step. Thus the combination of (1) and (2) gives the model.

However, when an individual fish comes in the school, it also adjusts its speed to try to travel at the same speed as other fishes.

$$\text{Hence } v_k(t+\Delta t) = \frac{1}{N} \sum_{j=1}^N v_j(t) \dots\dots\dots (3)$$

This completes the discrete model.

The direction and speed of migration is computed in every iteration using eq.2 and 3. and the result is substituted in eq.1. This completely determines the migration pattern of fish when an initial position $(x_k(0), y_k(0))$, $1 \leq k \leq N$ and the initial velocities $v_k(0)((\cos \phi_k(0), \sin \phi_k(0))$, $1 \leq k \leq N$ are given for individual fish.

Alignment in direction and speed is not the only tendency present in an aggregation of groups of animals, repulsion- when two or more individuals come too close or attraction-when two or more individuals spot each other or move closer are also present (Vicsek et al 1995; Vilhj'almsson 2002 and Partridge 1980: 315-325). Such models have been presented by Aoki (1982: 1081-1088) and Reynolds (Reynolds 1987: 24-34).

The above model is a discrete model, we can derive a continuous model from it and apply the dynamical system theory to it. This will allow us to find the solutions and the bifurcations in the set of solutions to the ODE and use this analysis to predict the behavior of discrete model under certain conditions. We can also simulate the data to find the advantages and pitfalls of our models.

The continuous model have great potential to give valuable insights into the behavior of the school of fish, when they are in their migratory phase, moving as large school due to the pollution of the coastal water.

The discrete model can be written as

$$\begin{pmatrix} x_k(t + \Delta t) \\ y_k(t + \Delta t) \end{pmatrix} - \begin{pmatrix} x_k(t) \\ y_k(t) \end{pmatrix} = \frac{1}{N} \sum_{j=1}^N v_j(t)$$

We divide by Δt as $\Delta t \rightarrow 0$ to obtain the ODE's

$$\begin{pmatrix} \dot{x}_k(t) \\ \dot{y}_k(t) \end{pmatrix} = \frac{1}{N^2} \sum_{j=1}^N v_j(t) \sum_{j=1}^N \begin{pmatrix} \cos \varphi_j(t) \\ \sin \varphi_j(t) \end{pmatrix} \dots \dots \dots (5)$$

Introducing the Polar coordinates we get:

$$V_k = \frac{\alpha}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \cos(\varphi_j - \varphi_k) - \alpha v_k \dots \dots \dots (6)$$

$$v_k \varphi_k = \frac{\alpha}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \sin(\varphi_j - \varphi_k) \dots \dots \dots (7) \quad \forall k.$$

Where α is the unit less turning rate, φ_k is the angle of velocity vector and v_k is the speed.

Now consider the Initial Value Problem (IVP) for the motion of school of fish, we must solve the system

$$V_k = \frac{\alpha}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \cos(\varphi_j - \varphi_k) - \alpha v_k \dots \dots \dots (8)$$

$$v_k \varphi_k = \frac{\alpha}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \sin(\varphi_j - \varphi_k) \dots \dots \dots (8)$$

$$R_k = v_k \cos(\varphi_k - \theta_k) \dots \dots \dots (9)$$

$$r_k \theta_k = v_k \sin(\varphi_k - \theta_k) \dots \dots \dots (9)$$

That is we must first solve system (8) with initial speeds and directions $v_k(0) = v_k^0$ and $\varphi_k(0) = \varphi_k^0$ for $k=1, 2, \dots, N$ in order to get the position of the fish and the velocities at any time t .

The solution of IVP (8) and (9) is then $r_k(t)$, $\varphi_k(t)$, $v_k(t)$ and $\theta_k(t)$ -----
(10) for $k=1, 2, \dots, N$

We have stated IVP in polar coordinates, as it is the easiest coordinate system.

The Migratory and the Stationary Solutions

Let $\alpha = 1$, this is not necessary for the existence of these solutions but this choice of α simplifies the exposition. By analysis of ODEs (8) and (9) we see that the migratory behavior occurs when the direction angle of all the fish are identical.

$$\begin{aligned}
 V_k &= \frac{1}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \cos(\varphi_j - \varphi_k) - v_k \\
 &= \frac{1}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \cos 0 - v_k \\
 &= \frac{1}{N} \sum_{j=1}^N v_j - v_k \\
 &= 0 \text{ if } v_k = v \quad \forall k.
 \end{aligned}$$

Thus, in this case, v_k is constant. Moreover, by the same arguments the second equation in (8) gives $v \varphi_k = 0$ so if $v \neq 0$, $\varphi_k \equiv \varphi$ is also a constant for all k .

Now if we substitute these solutions of the eq.(8) into eq.(9) we get the eqs $r_k = v \cos(\varphi - \theta_k)$ and $r_k \theta_k = v \sin(\varphi - \theta_k)$

A simple solution to this equation is $\theta_k(t) = \theta_k(0) = \varphi$ and $r_k(t) = r_k(0) + vt$.

Because this last equation is the equation of the straight line and the slope of the line is v for all k , it is clear that the fish when they migrate will move as a school, all in same direction φ , with constant speed v , on a single line.

In addition to these linear solutions we find an infinite family of stationary solutions Letting the number of fish be any integer N , a stationary solution is attained by choosing the direction vector of the k th fish in the school be the k th power of the N th root of unity.

$e^{i\varphi_k} = e^{i\omega_k} = e^{ki\omega}$, $1 \leq k \leq N$ when $e^{i\omega} = 1^{\frac{1}{N}}$ To see that these angles produce stationary solutions consider the system (8)

$$V_k = \frac{1}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \cos(\varphi_j - \varphi_k) - v_k$$

$$v_k \varphi_k = \frac{\alpha}{N^2} \sum_{j=1}^N v_j \sum_{j=1}^N \sin(\varphi_j - \varphi_k)$$

The sum of all n th roots of unity vanishes.

$$e^{i\omega} + e^{2i\omega} + e^{3i\omega} + \dots + e^{(N-1)i\omega} + 1 = 0$$

Multiplying by $e^{-i\omega k}$ and separating the real and imaginary parts we get,

$$\sum_{j=1}^N \cos(\omega_j - \omega_k) = 0 = \sum_{j \neq k=1}^N \sin(\omega_j - \omega_k)$$

Thus the equation above reduces to equations

$$V_k = -v_k \text{ and } \varphi_k = 0.$$

If $v_k \neq 0$, then the solutions are $v_k = v_k^0 e^{-1}$, $\varphi_k = \omega_k$

Substituting the solution of eq.8 into eq.9 gives us,

$$R_k = v_k \cos(\omega_k - \theta_k)$$

$$r_k \theta_k = v_k \sin(w_k - \theta_k)$$

The solutions of these equations are asymptotically stationary, so it does not matter which initial values r_k and θ_k have and the solution quickly approaches a stationary solution.

If we pick the initial angles $\theta_k(0) = w_k$ or distribute the fish at n th roots of unity around the circle we get the solutions

$R_k = r_k^0 - v_k^0 e^{-t}$; $\theta_k = w_k$, these clearly are the asymptotically stationary solutions.

Thus, we summarise the stationary solutions we found in (8) and (9). They are

$R_k = r_k^0 - v_k^0 e^{-t}$, $\theta_k = w_k$, $v_k = v_k^0 e^{-t}$, $\phi_k = w_k$, where $w_i w_k$ is the n^{th} root of unity.

Thus, we find that there are two classes of solutions that may be called linear or migratory and stationary.

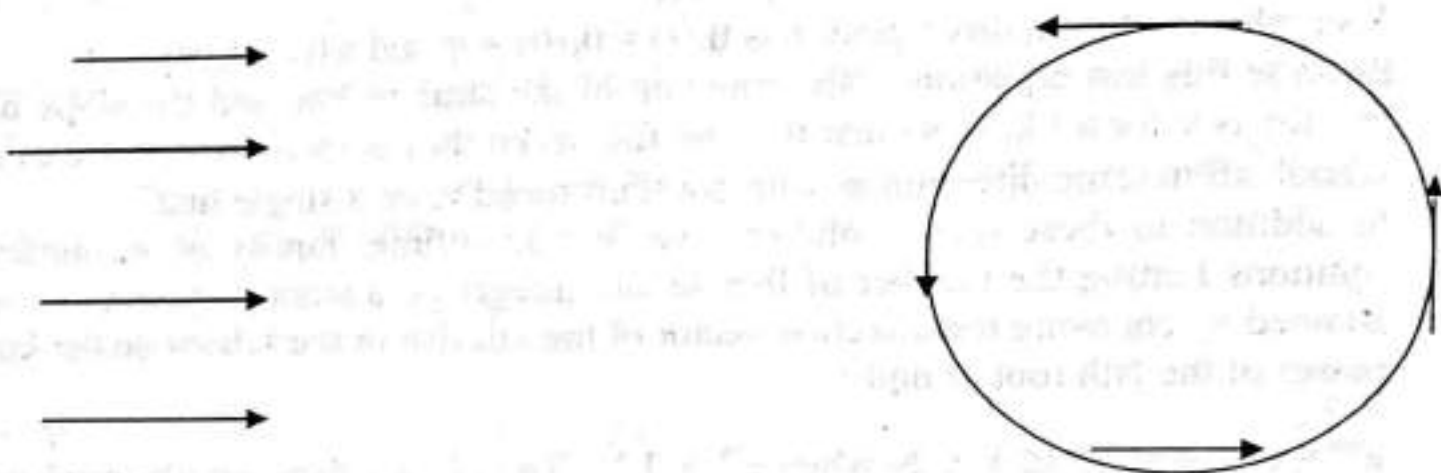


Figure: Pictured on the left is a depiction of a typical migratory school. The depiction on the right is a typical stationary school.

Conclusion

With the help of continuous model, we have been able to find a linear solution and an infinite sequence of stationary solutions for the system. Also, the model has great potential to give us the valuable insights into the migration patterns of mackerels.

The ODE model for the migration of fish derived from the discrete model (1) is the useful tool to examine the migration of fish. It possesses a wide variety of solutions that can be associated with fish and their migration, but much work is needed to be done to fully understand the global structure.

Fish migrate due to various reasons; however, pollution is one of the important factors leading to reduction in the fish catch in Goa. There should be strict adherence and monitoring of coastal areas by the stakeholders, authorities, NGOs, environmentalists, so that pollution can be minimized to the maximum possible extent. That will also prevent the migration of fish. There must be total ban on fishing during spawning season. The licenses for the mechanized trawlers should be granted based on fulfillment of environmental laws.

References

- Aoki, I. 1982. 'A simulation study on the schooling mechanism in fish', *Japanese society of sciences and fish*, 48:1081-1088.
- Birnir, Birnir. 2006. *Dynamics and migration of school of fish, focusing on migration of capelin around Iceland*. Santa Barbara: Centre for complex and non-linear science, University of California.
- Alvares, Claude. 1996. *Fish curry and rice: A citizens' report on the Goan environment*. An Ecoforum Publication.
- Government of Goa. 2001. *Statistical Handbook of Goa (2001)*. Panjim: Directorate of Planning Statistics and Evaluation.
- Lauretta, Burke, Yumika Kuro, Ken Kassem, Carmen Revenga and Don McAllister. 2001. *Pilot analysis of global ecosystem*. Washington D.C.: World Resource Institute.
- Hubbard, S., S. Sigurdsson, P. Babak, and K. Magn'usson. 2004. 'A model of the formation of fish schools and migrations of fish', *Ecological modelling*, 174: 359-374.
- Arnold, V. 1973. *Ordinary differential equations*. Boston: MIT Press.
- Birnir, B., L. Bonilla and J. Soler. 2006. *Complex fish schools*. UCSB preprint.
- Vicsek, T., A. Czir'ok, E. Ben-Jacob, I. Cohen, and O. Shochet. 1995. 'Novel type of phase transition in a system of self-driven particles'. *Physical review letters*, 75(6):1226-1229.
- Partridge, B. L. 1982. 'The structure and function of fish schools', *Sci. Am.*, 245: 90-99.
- Vilhj'almsson, H. 1994. 'The icelandic capelin stock', *Marine research institute*, 13 (2): 281.
- . 2002. Capelin (*mallopus villosus*) in the Iceland-East Greenland-Jan Mayen ecosystem. *ICES journal of marine science*, 59: 870-883, Available online at <http://www.idealibrary.com>, doi:10.1006/jms.2002.1233.

Partridge, B. L. and T. J. Pitcher. 1980. The sensory basis of fish schools: relative role of lateral lines and vision. *Journal of Comparative Physiology*, 135: 315-325.

Reynolds, C. W. 1987. 'Flocks, herds and schools: a distributive behavioral model', *Computer Graphics*, 21: 24-34.

'e-FERRAL COMMERCE' – THE OPPORTUNITY OF THE NEW MILLENNIUM

Sandra D'Mello

Lecturer

Department of BBA

e-commerce has been described as the biggest development in commerce since the invention of money. It involves the exchange of products, services, information and payment through the medium of computers. In other words e-commerce means doing business online. Due to the rapid growth of the internet, companies are adopting non-conventional methods of marketing. This article attempts to discuss the trends in marketing with special reference to e-ferral commerce.

e-Ferral Commerce is a relatively new concept. Until the mid-90s the internet itself was unheard of, but in less than five years the internet became the driving force behind a booming global economy. Industry experts believe that e-ferral commerce is the opportunity of the new millennium. This is evident from the fact that a number of well established manufacturing and marketing companies are turning to e-ferral commerce to market their products.

The term 'e-ferral commerce' was coined by Burkes Hedges, industry expert and author of three best selling books on Referral Commerce, to describe the union of Referral commerce and e-commerce. The e-ferral concept is a combination of a 50 year old proven industry called referral commerce, with the speed and efficiency of e-commerce. This revolutionary concept is the union of Pro-sumer power with the power and convenience of the internet. 'Pro-sumer' is a termed coined by Dr.Bill Quain, a Professor of marketing. The word Pro-sumer is a combination of the words **producer** and **consumer**. According to Dr.Quain (2000: 9-11), producers make money and consumers spend money, but **pro-sumers make money while they spend**. The keys to pro-suming are, to buy smarter, not cheaper, to think long term, not short term and to think like an owner not a customer. Hence, referral commerce simply means – buying smarter and then teaching others to do the same. Here, the consumer not only makes money while he spends, but also makes money when his referral partners and all their partners spend money. So whether it is called referral sales, network marketing, multi-level-marketing or e-ferral sales, the underlying principle remains the same.

Today, branding has become a powerful marketing tool and e-ferral commerce companies too have understood the power of branding. However, instead of spending millions of dollars on one celebrity, to advertise their brand, referral based companies distribute that amount among their pro-suming partners in the form of referral fees. Thus, thousands of average people have the opportunity to earn above-average income by way of referral fees for building their own referral based business.

Robert Kiyosaki – investor and author of The New York Times best seller, 'Rich Dad Poor Dad' and of the Rich Dad Book Series, explains *"Throughout history, the business quadrant has been the private domain of the rich, however, the network marketing system and the industry has done a great service by leveling the playing field, by making the opportunity for truly great wealth available to anyone willing to follow the system and enter the world of the B quadrant – the quadrant of the ultra rich. It offers the average man the opportunity to shift from the left side of the cash flow quadrant to the right side – to access a B quadrant business at a more affordable price and with much less effort."* (Kiyosaki 2002: 44-45) That is the power of e-ferral commerce. It is a concept that is changing the way the world lives, works and creates wealth.

The "e" in e-commerce stands for electronic but when e-commerce combines with referral commerce to get e-ferral commerce the "e" stands for a word that is just as powerful and dynamic as electronic. The word is **exponential** and it is this exponential factor that sets e-ferral commerce apart. Initial efforts may yield small returns but the long term potential is huge and consistent effort over a period of time yields huge returns as the business grows exponentially with every passing month and year. Exponential growth gets more powerful over time due to the law of compounding.

In today's super-competitive, discount-driven world, companies are faced with two big challenges. One, to ensure that their customers are brand loyal and two to make substantial profits. Hence, brand loyalty is a key factor for companies that want to grow their market share and profits. That is why e-ferral commerce companies have such an advantage on the internet. Their pro-suming business partners have a built in incentive to keep coming back. The more products a customer / affiliate buys and the more business they refer, the more referral fees they earn. This obviously results in high brand loyalty. According to Burke Hedges, *"Referral Commerce has enjoyed explosive growth over the last 50 years but the growth will pale in comparison to the future growth of e-ferral commerce"*. (Quain 2000 : 87)

Worldwide sales through direct marketing cross US \$ 101 billion and sales in India are over Rs.3110 Crores. Several multinational companies have entered the market and their success has seen the mushrooming of many smaller companies. This has also led to a number of illegitimate Multi-Level Marketing Schemes (MLM) many of which are easily found on the internet. Since these firms do not have a physical presence, they cannot be easily tracked. Such illegitimate MLM Schemes are called Ponzi schemes or Pyramid schemes.

Genuine companies that market their products using referral or e-ferral commerce, appoint independent distributors, affiliates or partners who are not employees of the company, but independent business owners (IBOs). The products of the company are sold to the distributors who, in turn sell these products to make a profit and appoint more distributors or IBOs. Hence, the returns come from the commission on sales made personally, as well as on the sales of the other recruits and their recruits.

A Ponzi scheme is an investment scheme named after Charles K. Ponzi, who operated such a financial scheme in 1919-1920. Though Ponzi was not the first to invent such a scheme, his operation involved a huge amount of money and hence was the first to be known throughout the United States. Today's schemes are considerably more sophisticated, although the underlying principle is the same. In such schemes the older members or investors i.e. those that join earlier get their returns entirely from the funds invested by newer members, hence returns are directly dependant on the number of people joining the scheme. A Pyramid Scheme is one in which a recruit pays a high entry fee. Returns are primarily from the recruit's introduction of additional participants in the scheme rather than from the actual sale of products. Such companies have a pyramid structure and hence those that join the company first, make money at the cost of those that join later.

Although very similar, the two schemes have a slight operating difference. A Ponzi scheme does not necessarily follow a particular hierarchical system. Instead only one person or company collects money from new investors. They act as a 'hub', interacting with all the investors directly. The agency then pays the older investors the returns promised to them from the latter's investments. As investments reduce and paying the promised returns become difficult most schemes collapse and the promoters disappear leaving the investors in the lurch. Such schemes are illegal and are banned in many countries. The Direct Selling Association does not admit Ponzi or Pyramid Sales companies as members. Direct Selling companies operating in India too, have formed an association – Indian Direct Selling Association (IDSA) to protect the interests of genuine companies.

With a number of companies springing up, it is important to differentiate the legitimate referral based companies from those that are not. Whether a company adopts referral or e-referral sales the basic criteria for evaluating a genuine company remain the same.

- **Start up costs should be minimal.**

The start-up fees are generally modest which usually includes some products or an initial sales kit.

- **Return of unsold inventory.**

Companies belonging to the Direct Selling Association "buy back" unsold marketable products purchased within the prior 12 months if the affiliate decides to quit the business, for 90% of the price paid for them, as stipulated by The DSA Code of Ethics.

- **Returns based on sale of products or services.**

This is a key element of a legitimate business. Like other methods of retailing, commissions should depend on the sales made to customers who use or consume the products and not on the number of people joining the scheme.

- **Member of the Direct Selling Association.**

Companies that are members of the Direct Selling Association are legitimate companies and have to compulsorily follow the DSA Code of Ethics.

- **Satisfaction guarantee.**

Most legitimate companies offer a satisfaction guarantee. A customer may return the product for a replacement or refund, within a specified period of time, if he / she is dissatisfied with the product.

- **Training & Marketing Plan.**

Legitimate companies offer extensive product training sessions free of cost. In addition, these companies also have a marketing plan which is generally simple and easy to duplicate. This enables the distributor to learn the techniques and teach the new recruits in order to have uniformity among the team.

- **Mentorship program and support system.**

Top referral based companies have an excellent mentorship program as well as some of the best business and leadership development programs in the world.

In short, before considering an opportunity it is advisable to gather as much information about the company, its history, its products or services, its leadership, costs involved in doing the business and commissions and bonuses.

In India e-ferral commerce has yet to pick up mainly because e-commerce itself is still in its nascent stage. This is primarily due to infrastructure related problems such as low density of telephones, PCs and internet connection. The low internet usage as well as low credit card usage among consumers is a deterrent to e-commerce. Customers are still skeptical about making purchases online as they are unsure of the quality of the products and timely delivery. Indian companies too use the internet mainly for communication, website monitoring and advertising purposes. However several companies in India have already made a beginning in e-commerce. 38% of Indian companies claim to be selling products or services through websites. 58% of Indian CEO's rated e-commerce as crucial to their growth strategy, anticipating that it would contribute over 17% in annual yearly turnovers within the next five years. Marketing giants agree that network marketing and e-ferral commerce are fast becoming the new marketing paradigm. In the words of Mr. Kiyosaki "*The richest people in the world look for and build networks, everyone else looks for work.*" (Kiyosaki 2002 : 2)

References

- Quain, Bill. 2000. *Pro-sumer power!* INTI Publishing & Resource Books.
- Kiyosaki, Robert, T. and Sharon L. Lechter. 2002. *The business school for people who like helping people.* Bhopal: C.P.A. Manjul Publishing House (P) Ltd.
- <http://www.indiandsa.co.in/faqs.htm>
- <http://www.dsa.org>
- <http://www.rediff.com/money/>
- <http://en.wikipedia.org/>

A STUDY OF ROAD ACCIDENTS AND BIKE USAGE PATTERNS AMONG COLLEGE STUDENTS IN GOA

Mr. Savio Falleiro

HOD (Selection Grade)

Department of Economics

The latest data on accidents in the country has brought to fore some grim facts. Firstly, it reveals a six-fold increase in the number of road crash injuries and a four-fold increase in the number of accidents against a fifty-fold increase in the number of registered vehicles and a less than 3 per cent increase in road network during the period 1970-2005. Secondly, data clearly shows that roads are turning deadlier in rural areas and small cities (Vishnoi 2007b: 2). In Goa things are not any better. Accidents are ever on the rise. As per the statement of Mr. Atmaram Deshpande, Superintendent of Police, Traffic Cell, 70 per cent of the fatal accidents in Goa were due to human error (The Navhind Times 2007a: 5). This paper attempts to analyze road accidents and vehicular usage patterns in Goa – with special reference to the bike usage habits of undergraduate college students. The study presented in three parts namely, what we know, what we ought to know and what we may not know reveals some shocking facts - all of which contribute to the rising trend in road accidents.

A] General: [...what we know]

Effect: Broken limbs, ruptured spleen, collar bones and ribs, bruises, paralysis, premature death, anguish, despair, shattered hopes and dreams, financial burden et al. One major immediate cause: 'Road Accidents'.

Road accidents, a major cause for all the tragic, wasteful and needless devastation that it wreaks on individuals, families and society – the third major killer after heart attacks and cancer are on the rise. Human indiscretion, government negligence and providence are certainly all responsible in one way or another. Good roads (excellent for careless speeding, they were responsible for almost 96% of the accidents which occurred in Goa in 2006), bad roads, mechanical failure, higher powered vehicles and the desire to be dare devils and do 'a Schumacher' on our roads are just instances of some immediate

causes of road accidents. Rising income levels, peer pressure, hassle free easy access to funds, wide media publicity of vehicles and portrayal of machismo through flashy bikes and SUVs (Sports Utility Vehicle) as done in movies (*Dhoom* for instance) are also factors that cannot be ignored. From a human perspective who is to blame for road accidents? Excluding 'act of God' or, one may say, nature's fateful role which is beyond our control, it is the parents, the RTO, the traffic cell, the drivers, the PWD, the contractors, the cyclists, the pedestrians and each one's behaviour that are all responsible. Some of the primary causes of accidents as we know are:

- *Rampant violations of Motor Vehicle (MV) rules**: Over speeding-cum-rash and negligent driving (while rash and negligent driving led to 2938 accidents in 2005, speeds exceeding legal limits were responsible for almost 75% of the accidents which occurred in Goa in 2006), improper overtaking, crossing lanes when prohibited, improper use of headlights, use of cell phones while driving, overcrowding of four wheelers, triple riding on two wheelers, helmet-less and seat belt-less riding/driving, parking in prohibited zones, inebriated driving, driving without proper sleep, etc, are all instances leading to road accidents which are well documented. How many drivers/riders are actually aware of the various MV rules and regulations and traffic signs? Do we not often find drivers short of even plain common sense? Consider this: 70% of all accidents are found to be 'avoidable' in nature.
- *Poor roads*: One may blame directly the PWD or road contractors for the same and indirectly the elected representatives (for it is partly the 'commission' system that is tacitly followed that eats into the margins of contractors thereby contributing to poor roads). Roads being riddled with potholes (deceptively filled with water during monsoons), squatted by cattle, narrow on occasions, poorly illuminated at night, with wrong placement of sign boards and bus stops (Pilar junction for example), improper speed breakers, uncontrolled junctions, perennial road side excavations, poor road engineering, steep drop on road borders – are all factors that contribute in a way to accidents.
- *Poor enforcement and inadequate provisions*: The RTO is notoriously known for their 'bribe for favour rendered' schema - especially for issue of

* It may be noted that the figures mentioned in the article (excluding figures of the Case Study), unless specially stated otherwise, are primarily obtained from the official Goa Police website and/or from press statements/releases issued by the Superintendent of Police, Traffic Cell, Goa Police, Government of Goa.

driving licenses and fitness certificates to road unworthy vehicles. Licenses are issued even without a trial. Those with visual impairment get licenses as easily as getting a cup of tea. The Traffic Cell too fares poorly on the enforcement front in spite of the sincere efforts of a few dedicated officers/staff. Possible reasons: lack of manpower (225 traffic cops for Goa's entire vehicle population of over 6 lakhs [*Herald* 2006] i.e. one traffic police for practically every 2,600 vehicles!!!), technological inadequacy (absence/ shortage of cameras, breathalyzers with facility for finding alcohol in the blood, speed detectors etc), absence of serious night time patrolling for traffic offences (from 7.00 pm to 8.00 am it is virtually free for all – practically all traffic norms are flouted with contempt) and interference of politicians. Interference from political honchos in particular emboldens the offenders and demoralizes the men in khaki and those in white-cum-blue too. The Motor Vehicles (MV) Act and the Indian Penal Code (IPC) in their present form are also inadequate to deter or correct offenders. For instance the penalty whether for drunken driving, rash and negligent driving (even if leading to death) or other offences are normally paltry sums in the range of Rs. 200 - Rs. 2000 and/or imprisonment which can be a maximum of 2 years (practically all offences, however serious they may be, are bailable in nature). With conviction taking a lot of time the offender is usually back at the wheel again during the intervening period.

- **Parents:** Giving too much too soon (either because of blackmail of children or to make up for their lack of quality time with them or to be on par with the neighbours kids), maintaining silence to offences committed by the kids and in fact abetting the same in a way by paying for the damages, by bailing them out by all means and by not taking effective and adequate corrective measures at the right time more often than not also contribute towards road accidents (Realistically speaking though, maybe parents do not always have other options than those taken.)

B) Some Figures: [....what we ought to know]

India is ranked 3rd in the world in terms of motor vehicle population with about 7 crore vehicles. To get a better feel of numbers take Delhi alone. It has over 50 lakhs registered vehicles. If you line them up bumper to bumper, the line can reach Los Angeles, USA or Sydney, Australia. Or for that matter the number is more than what is required to cover the entire stretch of the North-South and East-West corridors of India along with the entire length of the Golden Quadrilateral which has a combined length of over 13,320 kilometers.

Or imagine, vehicles of Delhi alone, when lined in a convoy, can equal the entire combined length of river Nile and river Amazon, the world's two longest rivers [Thakur 2006, 7].

Goa has a high per capita ownership of motor vehicles in India. In the last three years or so, over 40,000 new vehicles have been registered every year. Goa has for its population of around 14 lakhs people, a total vehicle population of over 6 lakhs, with two wheelers constituting the single largest group of around 4 lakhs (talking of two wheelers, Indians buy per day on an average 35,264 two wheelers of which 19,332 are scooters and 15,932 are motor bikes). Thus there are almost three vehicles for every seven Goans!

With a '*vehicle explosion*' being witnessed road accident rate cannot be far behind. India is ranked 2nd in terms of road accidents worldwide and is shortly going to overtake the dubious rank of number one from China [Vishnoi 2007a, 5]. While more than 1.2 million people die in road accidents globally every year, over 92,000 deaths occur in India – the figure quoted by the Ministry of Shipping, Road Transport & Highways being an astounding 94,968 in 2005 [*ibid*]. What about Goa with its high per capita ownership pattern of motor vehicles? In the two years ending as of 31st December 2006, the total number of road accidents officially recorded in Goa was over 3,500 for each year. While in the year 2005, 246 and 249 accidents were recorded as fatal and grievous respectively (270 persons were killed, 322 were seriously injured and 2420 were reported as having slight injury), as of December 2006 the figure of fatal accidents had crossed the 265 mark, with lives pre-maturely claimed exceeding 280 [*Herald* 2006]. Data shows that the number of those injured along with the total number of accidents is rising every year. While the increase in the total number of accidents in 2006 vis-à-vis 2005 is around 4%, the figure of fatal accidents has gone up by almost 13%. With respect to types of vehicles involved while the main culprits (or victims?) in 2005 were two wheelers at 2098 (cars and jeeps were 1685, trucks were 803 and buses, mini buses and tempos combined were 725 - the rest were three wheelers and others), two wheelers again topped the list for 2006 with a figure of over 40%. As was in 2005, in 2006 also most of those killed on account of road accidents were two wheeler riders with the average number killed per year being around 115 riders excluding pillion riders (the rest of those killed were pedestrians – approximately 63 p.a. - followed by others including drivers, cyclists, passengers and pillion riders). A big number of those involved in accidents are the young (almost one-third of the victims are below 35 years) and the educated. Besides accidents, traffic violations too are on the rise. The MV cases booked as of 31st Dec 2005 were 1.67 lakhs (around 1.58 lakhs by mid

December 2006 [*ibid*]) with fines collected hovering close to Rs. 2 crore mark for each year.

C) Case Study: [...*what we may not know*]

For the purpose of analyzing objectively certain issues related to road accidents a study was conducted on a systematically chosen, statistically appropriate sample of undergraduate college students of Goa, all of whom were major of age. The sample was chosen after giving due representation to gender, economic status, self-financed v/s general aided courses etc. The primary focus of the study was the bike ownership/riding patterns of students. Two wheelers were chosen for analysis since they constitute the biggest chunk in case of vehicle population, number of road accidents and since they are looked at as the 'thing to be possessed' by students. The study is useful to show how we cannot always blame other factors/agencies for accidents – we as parents/youth are to be blamed too on account of poor discipline, apathy, ignorance and neglect. As statistics issued by the Traffic Cell reveal, almost 71% of the accidents which occurred in Goa in 2006 were on account of some major fault of the driver itself.

The study revealed that an overwhelming majority of 90.51% of the students (100% in case of boys and 84.04% in case of girls) have ridden bikes in their lives (70.63% used their family bikes for their first bike ride with the rest using either their own bike or borrowed bike). Of these, 65.82% of the girls and 90.63% of the boys (for a combined figure of 76.92 %) were under-aged at the time of their first bike ride. Of the total sample surveyed, 82.47% of the respondents revealed that they knew of at least one person (not from their college/class) who was riding a bike on the roads regularly although he/she was underaged. An interesting finding was that almost 80% of the parents were aware of their children's first bike experience – and that too knowing that they were not of legal age for riding and that they (in case of most of the children) did not possess an effective driving license too.

Talking of driving licenses, 94.41% of the respondents possessed no license when they first rode the bike. Of these 50.35% still do not have one, with a sizeable figure of 65.28%, even regularly riding a bike at present without any license! Over a quarter of the license holders (26.76% to be precise) claimed that they had to give a bribe or had to go through an agent to get their driving license. 57.33% of the respondents informed that they knew of at least one person (not from their college/class) who had got the license by bribing or by going through an agent for he/she was not getting one otherwise. A number of students with driving licenses (obtained without greasing palms

of agents or RTO inspectors) informed that they got theirs without any trial and/or verbal questions on MV rules and signs!

Of the 90.51% of the student respondents who have ridden a bike in their life, 72.78% currently use a bike on a regular basis. Of these, 64.35% have an exclusive use over a bike (the rest use a bike off and on - the same bike is simultaneously used by others as well). Of those who have an exclusive use over a bike, while 44.35% have their 'own' bike (it may be registered though in the name of parents or elder siblings), 48.70% use a 'family' bike (parents bike which is used now exclusively by the son/daughter) and 6.96% use a 'borrowed' bike. In almost all the cases of students having own bikes, it is the parents who have bought the same for their children. An interesting finding was that almost two-thirds of the students who used their own bike to ride for the first time were in fact under-aged to own a bike. Parental influence over bike usage of children is seen not only through their awareness of the same and in terms of them being the primary purchasers of bikes, but also in terms of the fact that it is the parents who pay for the petrol and servicing (78.38% of the cases).

A little less than half of the regular bike users do not have helmets. Of those having, around 63% do not use the same. (It is appropriate to remember here that almost 76% of the deaths which occurred in Goa in 2006 were due to head injuries wherein 83% of those killed on two wheelers were not wearing helmets.) 54.43% of the *biking* students have experienced an accident while riding. However in spite of these experiences 30.23% of them still do not possess driving licenses. We should note here that insurance claims are settled only if the rider has an effective driving licence. Close to 70.53% of the bikes using students have been involved in MV violations. A disturbing finding of the study was that of two traffic signs shown (namely *No Parking* and *No Stopping or Standing*) from the list of Mandatory Traffic Signs to the students for their response/interpretation, only 5.06% got both answers correct. An astonishing figure of 94.94% of the total (98.94% girls) – comprising both license and non-license holders who currently ride a bike, had either erroneous or no knowledge of either one or even both the signs!

The study also revealed that 65.33% of the students having exclusive control over a bike bring the same to college. It is important to remember here that unbridled bravado of the students and senseless speed challenges among them have often led to tragic accidents. While 51.02% of the students bring their bikes daily to college, 16.33% bring frequently (around 2-3 times in a week) and 32.65% bring occasionally (around 2-3 times in 10 days). Around 97% of the students claimed that they use the bike on account of 'convenience' and due to an inefficient public transport system (the remaining cited either

'status' or 'peer pressure'). Although the study was conducted to study 'biking patterns' among students, it also revealed that 27.63% of the students in fact presently drive four wheelers too.

Times have changed - from bicycles (used as personal mode of transport by college going students around 20 years back) to low power mopeds, followed by geared bikes including scooters, to the presently used faster and heavier bikes (close to 60% of the boys currently use bikes like CBZ, Pulsar, Discover and Karizma). A number of students now own even two bikes each. And as this study has revealed slowly but surely there is a growing shift from two wheelers to four wheelers.

Conclusion

The number of young people in the world has never been higher. In all, there are about one billion 12 to 18-year-olds with almost nine out of 10 living in the developing world – including India. By 2015 it is estimated that 55 per cent of India's population will be less than 20 years of age [*Business Today* 2007]. Are we tackling their needs and emotions effectively? What about their lifestyle? Can they cope up to the realities of the modern day world? Can they cope up with the pressures of having or not having a bike?

The study conducted has revealed the role of youth and parents (besides that of the RTO and traffic cell of the police) towards road accidents. As shown the fault lies also with each one of us. With driving without an effective license, helmet-less riding, underage riding, flouting MV rules and even ignorance to basic traffic signs being routine affairs rather than exceptions, the future on the road safety front is quite bleak. The numbers of bikes zipping and zooming around are bound to increase with all publicity, media hype and easy availability of funds. The study conducted revealed that 44% of those not having their 'own' bike, along with those not having a bike at present, are 'going to go' for one of their own within a year. While almost 50% said they would buy the same on 'outright purchase' basis, the remaining said they would buy via 'installment payment'.

Where are we heading? With more, new and faster vehicles, inadequate parking spaces and enforcement becoming more symbolic due to inadequate manpower and equipment (when the existing few men are used largely to control the flow of traffic, can we have serious 'enforcement'?) - are we moving from *Dhoom* life to *DOOM(ed)* life? Proper parental influence, political non interference, empowered youth (training on road safety and traffic rules should compulsorily begin right from school), better enforcement of law, better technology, recruiting more personnel for enforcement, revising the

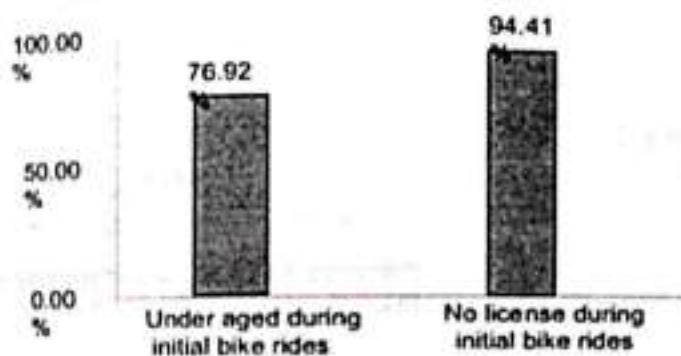
appropriate sections of the MV Act and IPC, improved road engineering, drive against corruption, efficient public transport system, sincere efforts of PWD and road contractors, long term planning of roads and parking places, etc, will all go a long way in improving our road sense and in reducing road accidentsand the consequent *broken limbs, ruptured spleen, collar bones and ribs, bruises, paralysis, premature death, anguish, despair, shattered hopes and dreams, financial burden et al.*

Appendix

Given below are some self explanatory graphical descriptions related to 'Bikes and College Students':

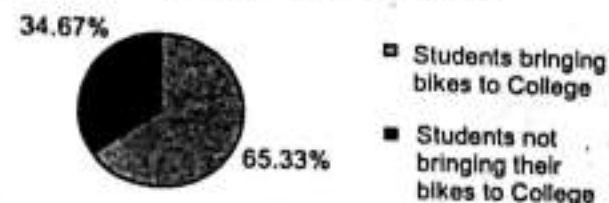
(i)

Under-aged and 'license-less' during initial bike riding



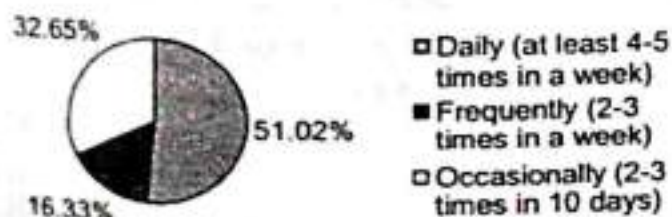
(ii)

Bikes to College (with ref. to those having exclusive use over a bike)



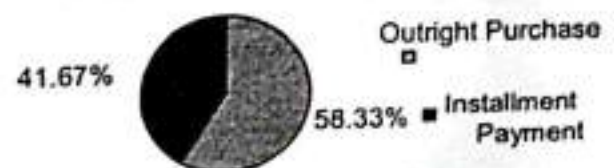
(iii)

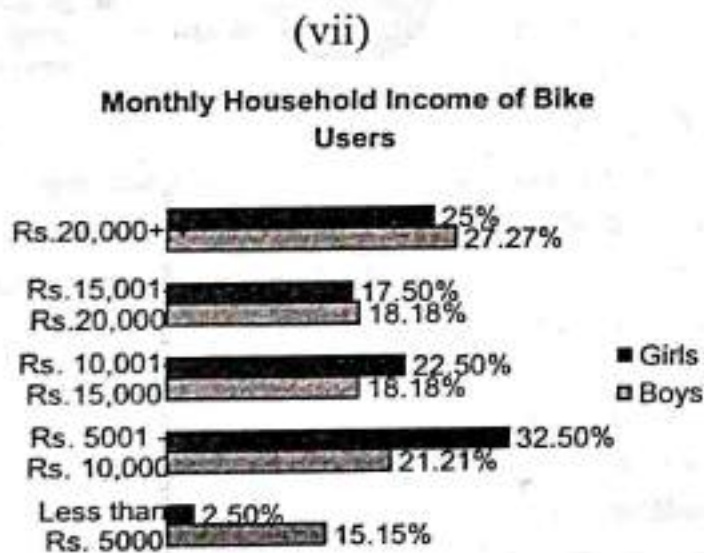
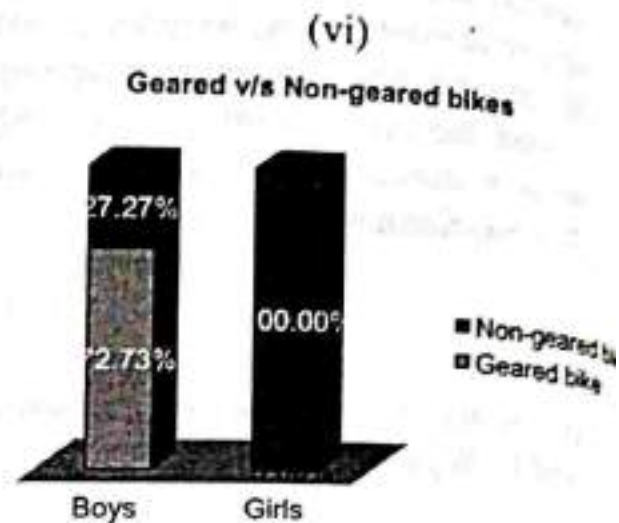
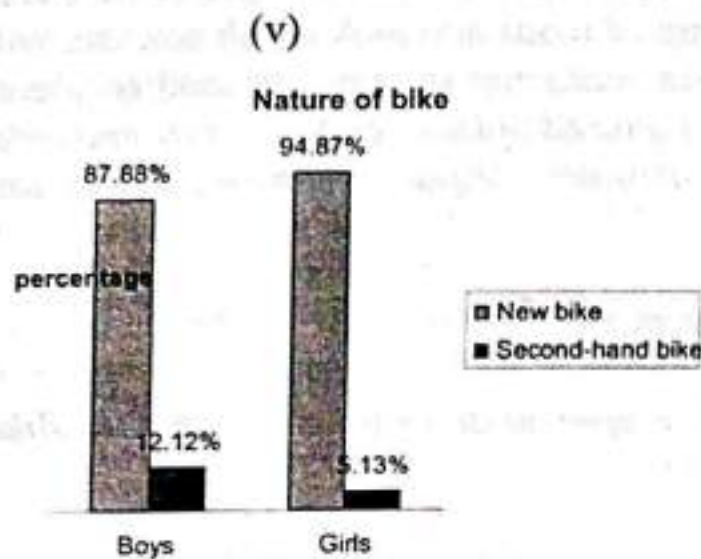
Frequency of 'Biking' to College



(iv)

Mode of Purchase



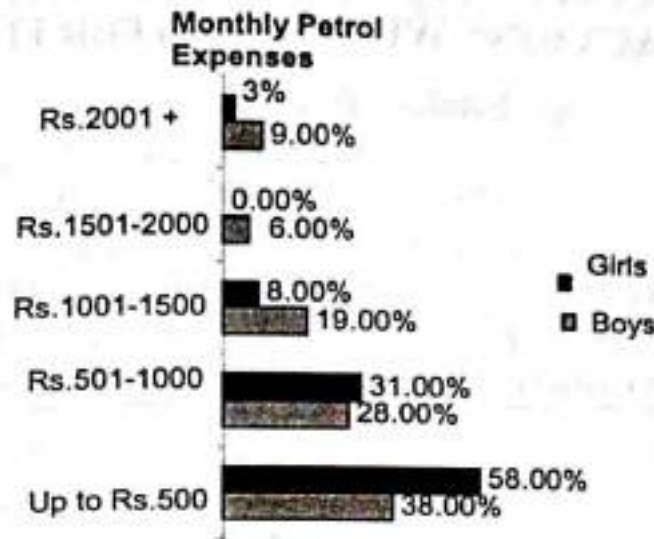


(viii)

Parents in favour or against the bike usage 'pattern' of their



(ix)



Approximate number of students

References

- Business Today*. 2007. 22 April.
Economic Survey (2005-06)
Falleiro, Savio. 2007. 'Bane of Road Accidents'. *Goa Today*. Vol. XL (March).pp. 8.
Herald. 2006. 29 December. pp. 3
Thakur, Atul. 2006. 'Lined up, Delhi cars can touch LA'. *Times of India*, 27 December. pp. 7
The Navhind Times. 2006. 29 December. pp.2
----. 2007a. 31 August. pp. 5
----. 2007b. 3 September. pp. 2
Vishnoi, Anubhuti. 2007a. 'Carefully tread the country roads'. *The Indian Express*. 1 September. pp. 2
----. 2007b. 'Killer roads: India leaves China behind'. *The Indian Express*, 26 September. pp. 5
http://www.goagovt.nic.in/police/html/acc_page.htm
http://www.goagovt.nic.in/police/html/traffic_1.htm

MINING ASSOCIATION RULES IN DATABASES HAVING TRANSACTIONS WITH REPEATED ITEMS

Shekar B. Naik

Lecturer

Department of BCA

This article aims at mining association rules between item sets in large databases having transactions with repeated items. Data mining refers to extraction of knowledge from large data sets.

Introduction

Data mining refers to extracting or mining knowledge from large amounts of data. Mining association rules in large databases with repeated items in transaction deals with discovering patterns of interest and promising in a database that are useful at the organization level. Such type of data mining is already done on databases having transactions with no items repeated in a transaction.

The article is organized as follows: Section 2 describes the problem dealt with. Section 3 describes related works that have been done. In Section 4, the approach to find dominant patterns in databases is discussed. Experimental results are provided in section 5. Section 6 provides a possibility of an outline of future work in the area.

Problem Statement

In mining databases without repeated items, the parameters derived provide knowledge and trends that are reflected in the data present in the database. In the market-basket domain these parameters reflect the buying patterns of customers. But the assumption that a transaction is an item set is not valid always, as normal buying pattern shows an item getting repeated in a transaction. Hence is the problem statement.

Given data source, with transactions having items repeated in it, from a large organization, we are interested in mining the data source to find patterns of interest for the organization.

As there are methods already available to mine such databases, this article only explores the data mining methods that are already applied on databases having transactions as itemsets.

Related Works

Data mining, also known as knowledge discovery in databases, aims at the discovery of useful information from large collections of data. The discovered knowledge can be rules describing properties of the data, frequently occurring patterns, clustering of objects in the database, and so on, which can be used to support various intelligent activities, such as decision making, planning, and problem solving.

For a database D with n transactions, each transaction having items from the set $\{I_1, I_2, I_3, \dots, I_k\}$, support of an item set I is given by $\text{Support}(I) = \text{no of transactions having all Items of } I/n$.

Support of an itemset is the probability that all the items in the itemset are found in a transaction in the database. If X and Y are two itemsets then association rule denoted at $X \rightarrow Y$ is the implication between X and Y . Support of the rule $X \rightarrow Y$ is given by support of the set $X \cup Y$ which is the probability of having all the items of itemset $X \cup Y$. Confidence of the rule $X \rightarrow Y$ is given as the ratio of support of the set $X \cap Y$ and support of X . Confidence of the rule $X \rightarrow Y$ tells us about the probability of a transaction having all items of the set Y if the transaction has all elements of X .

Not all generated itemsets and rules are useful. Itemsets having support greater than some threshold, minimum support, and rules having confidence greater than the threshold, minimum confidence, are said to be patterns of interest. Interesting itemsets are called as frequent itemsets and interesting rules are called as promising or heavy rules.

Mining Database Having Transactions with Repeated Items

Let D be a database with n transactions. Let I be the set of items present in the database. Let a transaction T be a collection of any items from the set I . A transaction T can have an item repeated any number of times. Transaction T is not an itemset.

Let X be an itemset where $X \subseteq I$. Support of itemset X is the ratio of number of transactions having all items of X and the total number of transactions in the database D , i.e., $\text{Support}(X) = (\text{Number of transactions having items of } X)/n$

The parameter support of X considers the number of transactions having items of X . It does not consider the number of repetitions of items of X in a transaction. In this case support alone may not be the only and perfect

measure of the trends exhibited by the items of itemset X. It may fail to recognize a frequent itemset as promising in the following situation. Suppose transaction T1 has all items of X repeated times more than minimum support. Support of X is $1/n$, which may be less than the minimum support. Hence itemset X is not reported as frequent itemset. Since number of occurrences of items of X is greater than minimum support it should have been reported as frequent itemset. Hence we suggest a new parameter OccurrenceSupport of an itemset, which is the ratio of total number of occurrences of all items of X in the database D and the total number of transactions of D, i.e. $\text{OccurrenceSupport}(X) = \text{number of occurrences of all items of } X / n$.

Support of an itemset varies between 0 and 1. OccurrenceSupport of an Itemset can be a real number greater than or equal to zero. The OccurrenceSupport value can be standardized to lie between 0 and 1 by multiplying the term OccurrenceSupport by the ratio of n and the sum of total number of occurrences of items in the set I-X and number of occurrences of all items of X. We call this parameter as Occurrence, i.e. $\text{Occurrence}(X) = (\text{OccurrenceSupport}(X) * n) / (O(I-X) + \text{Occurrence}(X) * n)$ where O(I-X) is the number of occurrences of items of set I-X.

In mining association rules of the type $X \rightarrow Y$, where X and Y are itemsets and X and Y are subsets of I, we associate integers m and n with the itemsets X and Y in the rule, respectively, to obtain the rule of the form $mX \rightarrow nY$. For a rule of the type $mX \rightarrow nY$ m and n denote the number of times of considerations of X and Y respectively. Associating m with X changes X to a collection of items of X, m number of times, denoted as C_mX . Support of mX is the ratio of number of transactions having all items of the collection C_mX and number of transactions. Confidence of $mX \rightarrow nY$ is the ratio of number of transactions having items of C_mX and C_nY and OccurrenceSupport of mX .

Experiments

Consider a data source with five transactions

$\{I1, I2, I1, I2\}, \{I1, I2, I3\}, \{I2, I3, I2, I3\}, \{I1, I2, I1, I2\}, \{I1, I3, I1, I1\}$

OccurrenceSupport of each item set is given below:

Item Set	OccurrenceSupport	Item Set	OccurrenceSupport
{I1}	16	{I2, I3}	0.6
{I2}	14	{I3, I1}	0.4
{I3}	0.8	{I1, I2, I3}	0.2

{I1,I2}	1		
---------	---	--	--

Occurrence of each item set is given below:

Item Set	Occurrence Support	Item Set	Occurrence Support
{I1}	0.42	{I2,I3}	0.15
{I2}	0.37	{I3,I1}	0.1
{I3}	0.21	{I1,I2,I3}	0.05
{I1,I2}	0.26		

The following rules are

Rule	Confidence
$1\{I1\} \rightarrow 1\{I2\}$	3/8
$1\{I1\} \rightarrow 2\{I2\}$	2/8
$2\{I1\} \rightarrow 1\{I2\}$	2/3
$1\{I2\} \rightarrow 1\{I1\}$	3/7
$1\{I2\} \rightarrow 2\{I1\}$	2/6
$2\{I2\} \rightarrow 1\{I1\}$	2/3

Conclusion

This article considers mining databases having transactions with repeated items. In such databases transactions are not set of items. Instead, they are collections of repeated items. This article explores the possibility if finding interesting patterns of interest. Mining such databases is a new field where not much work has been done. Future work will include more experiments and theoretical analysis of this problem.

References

- Agrawal, R., T. Imielinski and A. Swami. 1993. 'Mining association rules between sets of items in large database' in *Proc. ACM SIGMOD Conf. Management of Data*, pp. 2017-216.
- Chattratchat, J. 1997. 'Large scale data mining: Challenges and responses' in *'Proc. Third international conference. Knowledge discovery and data mining'*. pp. 143-146.
- Chen, M., J. Han and P. Yu. 1996. 'Data mining: An overview from a database perspective', in *IEEE transactions on knowledge and data engineering*, 8 (6): 866-881.
- Srikant, R. and R. Agrawal. 1997. 'Mining generalized association rules' in *Future generation computer systems*, 13 (161-180).
- Xindong Wu and Schicao Zhang. 2003. 'Synthesizing high-frequency rules from different data sources' in *IEEE transactions on knowledge and data engineering*, 15 (2).

धनगर (गवळी) समाज: एक आभ्यास-भाग १

श्री. सुशांत नाईक

व्याख्यातो

कोंकणी विभाग

धनगर, सह्याद्रीच्या दोंगर वाठारांत राबितो करून रावपी एक जमात. खरें म्हळ्यार गोंय सरकारान तांकां जमातींत अजून आस्पावून घेवक ना. तरीय पूण तांच्या सामाजीक, सांस्कृतीक धार्मीक आनी पारंपरीक घडणुकांतल्या आनी जगपी जिणेतल्यान तांचो भटके जमाती कडेन लागींचो संबंद आशिल्ल्याच्यो जायत्यो रुजवाती मेळटात. तांच्या मताप्रमाण धनगर जमात ही महाराष्ट्रांतल्या सह्याद्रीच्या दोंगरावेल्यान गोंयांत देवल्या. महाराष्ट्रांतल्या भोसले राजवाड्याच्या काळार शिवाजीच्या सैन्य फौजेंत जायते धनगर लढपी आशिल्ल्याची इतिहासीक गवाय आसा. पूण ते गोंयांत केन्ना आयले हाचेविशीं मात अजूनय मतभेद आसात. धनगर काय गवळी ह्या तांच्या नावांविशीं अजूनय निश्चीतपणा मेळना.

धनगर ह्या जातिची उत्पत्ती यादव काळासावन आसा. पुराणान श्री कृष्णाच्या वेळार श्रीकृष्ण धनगरांगेरूच लहानाचो व्हड जालो. यशोदा ही धनगर कुळाची अशें मानतात. धनगर म्हळ्यार जनावरां, बोकड्यो, गोरवां राखपी राखणो. ताच्या खांदार कामळ, कमराक लोंगोटी, हातांत दाणो, तकलेर पागोटी, कानांन भिकबाळ्यो, हातांत मनगट्यो हो भेस म्हळ्यारूच राखणेपणाची गवाय. घरांत आशिल्ल्या सुमाराभायल्या गोरवांक लागून तो दिसभर रानांत उरतालो. देखून रानांतल्या दर एका गजालिकडेन ताची लागणूक वाडली आनी तो रानानूच राबितो करून रावूंक लागलो. त्या रानानूय ताका आपलोसो केलो आनी गांवातल्यान, शारांतल्यान पयस रानान रावपाचो तार्णी जागो सोदून काडलो.

धनगर जमात रानांत रावपाफाटलें आनीक एक कारण म्हळ्यार, तांचे कडेन गोरवां खूप आसतालीं तांकां चरोवंक सुमाराभायलो चरव आनी जागो लागतालो. तो रानाखेरीत आनीक खंयच मेळप शक्य नासलें. खेरीत गोरवां हेर लोकांच्या भाटान, शेतान वचपाची भिरांत आसताली. देखून तांच्या खावडिच्या आनी सुरक्षेच्या बाबतींत येवजून तार्णी रानान रावपाची सुवात योग्य थारायली आनी काळांतरान थंयच तो स्थायीक जालो. सगळ्यो रानवटी चाली-रिती आपणावंक लागलो. ताचें खाण-जेवण, भेस-भास, सण-परबो, सांस्कृतीक जीण रानवटी जावन पडली आनी जे तरेन भटकी जमात आपल्यो चाली-रिती पाळपाक प्रामाणीक आसतात तेच तरेन तेय पाळपाक लागले. देखून तांची दर एक घडणूक भटक्या जमातिकडेन सामकी लागींची आसा.

धनगर जातिची उत्पत्ती आनी इतिहास

ह्या संवसारान धनगर ही जात/जमात? केन्ना सावन जल्माक आयली तें निश्चित पणान सांगूंक नज. कारण तांच्या जल्माचो दर एका जाणकाराच्या आनी मानववंश शास्त्रज्ञाच्या मताप्रमाण वेगळो आसा. तरी पूण ब्राम्हणोत्तर जातिपैकी धनगर ही एक महाराष्ट्रांतली मुखेल आनी महत्वाची अशी जात. आयज ह्या जतिचो लोक गोंयात सुमार ११८ सुवातिनी फाफसला. आनी गोंयात ताची संख्या सुमार ७५०० इतली आसा.^१ मानववंशशास्त्रीय नदरेंतल्यान गोंयात ते गवळी कांय धनगर वा गवळी-धनगर हें मात निश्चित सांगूंक नज. खरें म्हळ्यार ही एकूच जमात नासून तिच्यो २२ पोट जाती आसात. तातूंतल्यो कांय जाती भतक्यो आसून कांय हालींच स्थायीक जाल्यात. धनगर ही जमात द्रवीड वंशीय आसून ती आर्यपूर्व काळासावन भारतांत आशिल्ली दिश्टी पडटा. गायो, म्हशी पाळप हो तांचो मुखेल वेवसाय, तातूंत बोकड्यो आनी मेंढरां पोसपाचो वेवसाय उपरांत सुरू जालो जावं येता.

धनगरांच्या जल्माविशीं आनीक एक दंतकथा तांच्याच तोंडातल्यान आयकूंक मेळटा. ती अशी "पुराणकाळांन भुयारातल्यान एक दीस बोकड्यो आनी मेंढरांचो चोमोच भायर सरलो. लोकांच्या भाटाची आनी शेतांची नाशाडी करपाक लागलो. शेतकामत्यांचेर आयिल्लो हो आकांत पयस करपाखातीर तांणी देवालागीं मागणें केलें. देवान तांचें मागणें आयकून तांचेर आयिल्लें अरिश्ट पयस करपाखातीर आनी बोकड्यो-मेंढरांची राखण करपाखातीर जो राखणो तायर केलो तोच हो धनगर अशें ते मानतात. हे दंतकथेचो सारांश इतलोच की धनगरांचो वेवसाय हो आदिंसावन बोकड्यो आनी मेंढरा पोसपाचोच अशिल्लो हाची रुजवात मेळटा. सामाजीक नदरेन धनगर गोंयातल्या हेर मागासवर्गीय जातीपरस चड मागाशिल्लो आसा. ताची भास, भेस घरां आनी खाण-जेवण हेर जाती वा जमाती परस वेगळें आसा. जे भकटक्या वा आदिवासी जमातिकडेन सामकें लागिचें अशेंय आमच्यान म्हणूं येता.

गोंयात, तिसवाडी म्हाल सोडल्यार हेर धाय म्हालांतल्या ११८ गांवानी धनगर लोकवस्ती करून रावतात. गोंयचे लोकवस्तीच्या ६% लोकवस्ती धनगरांची आसा.^२ सत्तरी आनी सांगें ह्या म्हालानी ते चड प्रमाणान मेळटात. ही जमात महाराष्ट्रांतल्या खासकरून घाटमाथ्यावेल्यान ती सह्याद्रीच्या दोंगराळ भागानूच वस्ती करून आसा. तांच्या महाराष्ट्रांत रावपी २२ पोटजाति पैकीं गोंयातली नवकी खंयची पोटजात तें अजून कळना. ते सांगता की महाराष्ट्रांतल्या खंयच्याच जातिकडेन तांचो संबंद ना. गोंयात तांका गवळी ह्या नावान वळखतात. तांचें कारण म्हळ्यार ते जे खोपीन रावतात तिका गवळ म्हणटात. रानटी वेळूपासून आनी तणापासून तायर केल्या हे गवळींत मुखावेली सुवात ही तांच्या गोरवांखातीर आसता आनी भितल्ले वाटेन ते रावतात. हे तांचे गवळीक लागून गोंयांत तांकां गवळी म्हणटात.

धनगर सामाजाच्यो कांय रिती

आदल्या काळार एकापरस चड लग्नां करपाची चाल तांच्यांत आशिल्ली. गोंयच्या कांय वाठारांनी अजूनय ती मेळटा. घडये गोरवां बोकड्यो पाळपाच्या वेवसायान कुटूंबातल्या मनशांची संख्या चड आसल्यार फायदेशीर थारताले. गोरवांचो इतलो नग एकल्याक पोसप शक्य नाशिल्ल्यान तांका एकापरस चड लग्नां करची पडटाली. आनी उपरांत ही चाल तांच्यात परंपरेन उरली.

धनगर जातींत चलो चलयेची लग्नां भुरग्यापणांत जातालीं. १४ वर्सा चल्याचें जाल्यार ४ म्हयने म्हळ्यार पाळण्यातूंच चलयेचें लग्न करताले. तशेंच काडिमोड(डायवस) आनी पाटाचें लग्न ह्यो दोनूय चाली ह्या जमातींत आसात. तांच्यान विधवा विवाह लेगीत करतात. ह्या समाजान चलयेच्या बापायक दोत दिवपाच्या बदला चल्याच्या बापयक दोत दिवपाची वेगळी पद्धत दिसून येता. दोती खेरीत चलयेच्या बापायक पगोटें आनी आवयक कापड दिवपाची चाल आसा. पुर्विल्ल्या काळार दोतिची रक्कम थारायिल्ली आसताली. अजूनय गोंयातल्या कांय भागांनी ४०० ते ६०० रुपया दोत दिले बगर चली मेळपाक कुस्तार जाता.

भुरगें जल्माक आयल्या उपरांत हेर जातिप्रमाण हांच्या जातिनूय विधी करतात. सटी आनी सुयेर पाळटात. अकराव्या दिसा शुद्धकार करून बाराव्या दिसा भुरग्याक नांव दवरतात. तशेंच मेले उपरांत तांच्या जातीन मड्याक जाळीनांत. एक फोण काडून ताकाम माणी घालून त्या फोणात बसयतात आनी पुरतात. इकरा दीस सुतक धरून बाराव्या दिसा मेल्ल्याचें श्राद्ध घालतात. वर्सश्राद्धाच्या दिसा देवळांत वचून भटाकडल्यान मेल्ल्या मनशाक सोडून हाडपाची चाल आसा. सोडून हाडिल्ल्या आत्म्याक ताम्याच्या नाण्याच्या रुपान देवाकडेन दवरिल्या ताम्याच्या तामयान दवरतात. आनी घरांत जेन्ना कसलेंय धार्मीक कार्य आसता दे दीस त्या पितरांची पुजा करतात.

खंडोबा हें धनगर समाजाचें दैवत. खंडोबाची एक बायल ही धनगर समाजाची आशिल्ली असो तांचो खर समज आसा. गोंयातल्या धनगरांची फुरसाई, अंबाई हीं कुलदैवतां आसात. घरांत ताची पुजाय करतात. तशेंच देवाकुडीन पितरांच्या नावान ताम्याचो तामयो दवरतात. तांचे दैवत आनी देव पुजपाची तरा पळयल्यार ही जमात महाराष्ट्रांतल्यान गोंयात आयल्या हाची कांय खीण सत्यताय पटता. कारण अंबाबाई आनी फुरसाई ह्यो दोनूय देवता महाराष्ट्रांतल्या कोल्हापूर आनी तुळजापूर ह्या वाठारांनी आसात. तशेंच थंयच्या लोकांची आनी धनगर लोकांची देव पुजपाची पध्दत एकूच आशिल्ल्याचो दिश्टावो जाता.

धनगरांची कुलदैवतां

गोंयकार हिन्दूंक उण्यात उणीं तीन तरी दैवतां आसतात. ती म्हळ्यार कुळदैवत, ग्राम दैवत आनी आराध्य दैवत. कुळदैवत म्हळ्यार कुळाचो देव जो आमी पुजतात तो, ग्राम दैवत म्हळ्यार गांवात जो देव आसा. आनी गांवची राखण जो देव करता ताकां ग्रामदेव म्हणटात. जाल्यार हे भायर जातये फावट हिन्दू समाज कुळदेव आनी ग्रामदेव सोडून आपलो असो एक वेगळो देव पुजता. दर दिसा भावार्थान ताची पुजा करता. ताका तो आपलें आराध्य दैवत अशें मानता.

हें जरूय हिन्दूंच्या हेर धर्मांनी आसलें तरी धनगर समाजांत मात देवाची अशी विभागणी केल्ली दिश्टी पडना. ही जमात फकत एकूच देव मानता आनी तो म्हळ्यार तांचो कुळदेव. ते आपल्या कुळदेवाक व्हड भावनेन पुजतात. बिरोबा हें धनगरांचें मुखेल दैवत. पूण ह्या देवळाचें मुळ स्थान खंय आसा, हो देव मुळांत खंयचो तें मात अजूनय तांकां खबर ना. धनगरांच्यो ज्यो पोटजाती आसात त्या पोटजातिप्रमाण आडनावां आसात. तशेंच त्या आडनावांप्रमाण तांचे कुळदेव लेगीत वेगळे आसतात. तांच्यान बिरोबा हें जरी मुळ दैवत आसलें तरी तातूंत जोडगो विठोबा, निमज्या विठोबा, धनगर वाड्याचो विठोबा, शिदोबा, खंडोबा, कानोबा, जानोबा, अशीं पुरुश दैवतां जाल्यार जनाबाई, नवलांबाई, अंबाबाई, जिजाबाई, भैरिमालाबाई हें सरकिल्ली स्त्री दैवतांय आसात. तशेंच विठुज्यान्या, जान्याधुळोबा, जान्यानिमज्या, जान्यानवलोबा. ज्यान्या केदार अशीं कांय घरचीं कुळदैवतां आसात.

धनगर समाज हो पयलीं सावन तांच्या कुळदेवाची पुजा करता. तांकां हेर देव लागनात. तांच्या जमार्तितले कांय जाणकार अशें मत परगटायतात की जर ताणें आपलो कुळदेव सोडून दुसऱ्या देवाक मानलो वा पुजलो जाल्यार तांच्या देवाचो तांचेर कोप जावन ना-ना तरेची संकश्टां येव शकतात. गोंयात कितलिशीच देवळा आसात देवळा आसात. पूण धनगर लोक ह्या देवळानी केन्नाच गेल्लो दिश्टी पडना.

धनगर जमात तांच्या देवाची पुजा सदांच करिनात. ते फकत कांय सणांक, लग्नकार्याक आनी हेर धार्मीक सणांकूच करतात. हेर दिसांनीं ते देवाखातीर तयार केल्ल्या बेताच्या पेटान्यांत दवरतात. ह्या लोकाचो आपल्या देवाचेर भोव विस्वास. कितेंय जालें जाल्यार ते रोखडेच आपल्या देवाकडेन आपल्यो अडचणी मांडटात. कोणाचें भुरगें बरे ना जाले, कोणाची गोरवां शेणली, कोणाचो वेवसाय बरो चलना जालो वा हेर कसलेंय संकश्ट आयलें जाल्यार तो रोखडेच बारावशीं लोकांक आपयतात आनी देवाकडेन गारणें घालतात. चपय आंगयतात आनी ही चपय मागीर ते दसऱ्यादिसा पुराय करतात.

ह्या भागांत धनगरा विशीं मांडताना इतलेंच मांडलां, खरे म्हळ्यार धनगर वा गवळी ह्या जमातिविशीं बरोवपासारखें खूप आसा. ती एक जमात जाल्ल्या कारणन जमातिच्या जल्माचो सोद घेतना मानववंशस्त्रीय पद्धतीन घेवचो पडटा. पूण धनगर(गवळी)एक जीण: एक अभ्यास ह्या पयल्या भागांत मात ताची मुळावी आनी पुसटशी म्हायती मांडपाचो यत्न केला.

आदारावळ

गांवस, वंदना. १९९९. धनगर एक जीण: एक अभ्यास, (प्रकल्प). साखळे: सरकारी महाविद्यालय.

गोमीश, बनडित. (अध्यक्ष), २००३. धनगर(गवळी) जमात: संशोधन समिती. पणजे: गोंय सरकार.

हळर्णकार, तानाजी. (संपा) १९९७, कोंकणी विश्वकोश, खण्ड २. ताळगांव: गोंय विद्यापीठ. नाईक, सुशांत. १९९९. धनगर एक जीण: एक अभ्यास, (प्रकल्प). साखळे: सरकारी महाविद्यालय.

ATTITUDE TOWARDS SEX EDUCATION: A FOCUS ON URBAN AND RURAL ADOLESCENTS

Mrs. Tanya Marchon

HOD (Selection Grade)

& Mrs. Eulalia Fernandes

Lecturer (Senior Scale)

Department of Psychology

The present study attempts to examine the attitude of urban and rural adolescents towards sex education. Two groups of 20 adolescents each from urban and rural areas were studied. The attitudes were measured using the sex-education attitude scale constructed by Prof. Ravindra V. Patil. Results showed significant differences between urban and rural adolescents. Urban adolescents were found to have a more positive attitude towards sex-education as compared to rural adolescents. Findings with respect to gender differences revealed that the gender of the adolescents did not significantly affect their attitudes towards sex-education. The results and implications have been discussed.

Introduction

No word has been so loved and hated, misunderstood and over analyzed, lionized and disclaimed, reviled and revered, fantasized and over beaten, used and misused as the word SEX. Today, sexually related problems are multiplying with intensity and severity. The number of illegitimate births has increased dramatically and sexually transmitted diseases are infecting not only adults but young teenagers as well, not to mention the unprecedented rate of abortion, date rapes, broken families, etc.

The target group for sex education is mainly the adolescents as they are the ones who face most of the problems. Adolescence is a period of life during which the total outlook of an individual is modified, transformed and altered. It is during this stage than an individual's physical, mental, social, moral, and spiritual outlook undergoes revolutionary changes. (Chaube 2002)

Although the majority of adolescents prefer their parents to be the primary source of sex education, evidence indicates that peers are considerably more likely than parents to provide this information, often in a biased or

incorrect manner. Therefore it is necessary that the parents give correct information, to the child or else they are bound to be misled.

Today there is a vast change taking place in people's attitudes on sex education. People have accepted that in today's time it is necessary to get sex education, which can be a positive force in promoting physical, mental and social health.

Aims and Objectives

Today's kids are becoming sexually mature and active at a much earlier age and there has also been an alarming increase in sexual crimes by minors. So, there is an urgent need to provide sex-education at a very early age.

The present study was carried out with the following objectives:

- To compare urban and rural adolescents in terms of their attitudes on sex-education.
- To determine whether gender differences exist in attitudes towards sex-education.

Methodology

Sample: The sample consisted of 40 adolescents, 20 of whom belonged to the rural population while the remaining 20 from the urban population. Each of the two groups consisted of equal number of males and females, their age ranging between 13 and 18.

Instrument Used: The sex- education attitude scale constructed and standardised by Prof. Ravindra V. Patil was used for the purpose of the study. The scale consisted of 25 items which had three types of alternative responses, i.e. agree, undecided and disagree. The subject had to tick mark any one of the alternatives that he/she found most appropriate. There is no time limit.

Procedure: Each of the 40 adolescents were administered the sex-education attitude scale individually following the establishment of an adequate rapport with them. Clear instructions were given to the respondents and no time limit was set for answering the scale. All the information was kept confidential. The protocols for urban and rural adolescents were scored and corresponding interpretations were obtained following the norms provided by the author.

Results

Adolescents with sex-education attitude score ranging between 35-50 were considered as having negative attitude, 51-60 as moderate and 61-75 as positive attitude. The scores are presented in Table 1. Data obtained revealed that urban adolescents had a more positive attitude towards sex-education in comparison with rural adolescents ($63.2 > 56.70$). With respect to gender differences, a glance at Table 2 makes it clear that there was no significant trend observed among males and females. Among the rural adolescents, females had a more positive attitude, while among the urban adolescents males seemed to be more positive. The percentage of urban and rural adolescents having different attitudes on sex-education is depicted in Graph 1. Observing the graph, it can be inferred that a larger proportion of the urban adolescents had a positive attitude as compared to the rural adolescents.

Discussion

It is clear from the results obtained that urban adolescents have a more positive attitude towards sex-education than rural adolescents. This could perhaps be due to the fact that the parents, teachers, friends of urban adolescents are more free and open to talk about issues regarding sex, whereas in rural areas parents/teachers refrain from such openness. In rural areas there is no proper exposure to media, internet or other facilities and mixing up with opposite sex is limited to a certain extent. On the other hand, urban adolescents are exposed to a wide variety of stimulation and are thus driven by curiosity. Besides, a larger proportion of urban adolescents had a positive attitude on sex-education as compared to the rural adolescents. Rural adolescent, in the absence of much stimulation and exposure to media are at a disadvantage. They remain naïve about some sexually related issues and do not feel the urgent and pressing need for sex-education. This could be one of the reasons for obtaining such findings.

With regard to gender differences, an opposite trend in results was observed in the two groups. In case of the rural adolescents, females had a more positive attitude towards sex-education. Several factors might have contributed to these results. Besides, women empowerment is on the rise and the Government is also emphasizing more on female education. Also, fear of STD's and teenage pregnancy may prompt them to gain more information about sex and thus develop a positive attitude towards sex-education. In contrast, among urban adolescents, males held a more positive attitude than

females. Urban adolescents are more exposed to sexual material through text messaging and films, thereby increasing their level of curiosity. These results are in line with the findings obtained by the study conducted by Stephen & Betsy (1995) who examined the level of knowledge about human sexuality and AIDS among boys and girls living in the urban parts of India.

Conclusion

The present study set out with the main aim of obtaining the attitudes towards sex-education among urban and rural adolescents. Results revealed that there is a marked difference in attitudes between the two groups. Further, it can be safely concluded that urban adolescents held a much more positive attitude regarding sex-education as compared to rural adolescents. Besides, it also became clear from the results obtained that attitude towards sex-education was not greatly influenced by gender.

Table 1. Attitude Scores towards Sex-Education

	Attitude scores of Urban Adolescents	Attitude scores of Rural Adolescents
Total	1134	1264
Mean	56.70	63.20

Graph 1

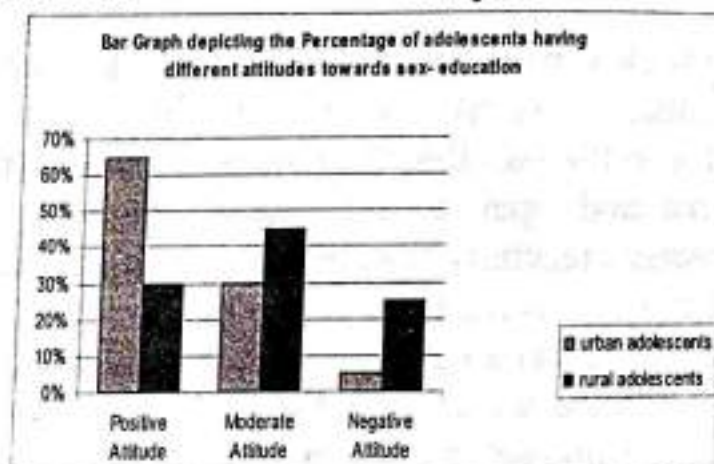


Table 2. Gender Differences in Attitudes of Adolescents towards Sex-Education

	Urban Males	Urban Females	Rural Males	Rural Females
Total	648	626	553	581
Mean	64.8	62.6	55.3	58.1

References

- Chaube S.P. 2002. *Psychology of adolescents in India*. New Delhi: Concept Publishing Company.
- Karol Madhavi. 1997. *Sex education for teenagers-insight into adolescence*. New Delhi: S. Chand & Company Ltd.
- Myers David. 1983. *Social psychology*. Mc Graw Hill.

FUNCTIONING OF GOA HANDICRAFTS, RURAL AND SMALL SCALE INDUSTRIES DEVELOPMENT CORPORATION LTD (GHRSSIDC)*

This article deals with the study on the functioning and the activities of GHRSSIDC and its worthiness in the panorama of Goan villages. The various schemes available to talented artisans and small entrepreneurs are also discussed.

Goa with its rich tradition that is a blend of Indian and Portuguese culture has yet remained distinctly unique. This perhaps is best reflected in the arts and crafts, fashioned by the hands of Goan artists. Simple yet intricately beautiful, abstract yet exquisite, these creations have captured the fancies of locals and tourists alike. They are indeed a mirror of Goa's perennial glory and beauty. It was with the intention of promoting these talents in Goa that the Goa Handicrafts, Rural and Small Scale Industries Development Corporation Ltd. (GHRSSIDC) came into being.

Over the years, the efforts of GHRSSIDC have helped Goa to earn a place of pride in India and around the world. Goan artists have indeed carved a niche for themselves with a myriad of handicrafts that have been the connoisseur of all eyes, the world over.

These intrinsic talents have given rise to small-scale industries in rural areas in and around the prominent land of Goa. Thus, to prop up these rural industries and to provide them boost in their errand and promote self employment, GHRSSIDC has joined hands with the other Government Industrial development Corporations in their endeavors.

This project work includes a study on the functioning and the activities of GHRSSIDC and its worthiness in the panorama of Goan villages. It will also help one to know the various schemes available to talented artisans and small entrepreneurs.

* The research study is done by Mr. Manuel Fernandes, Ms. Cristina Clemente, Ms. Kitty Colaco, Ms. Ingrid Goês, Ms. Melisia Fernandes, Ms. Nisha Naik, Mr. Nitesh Dessai, Ms. Pradnya Gawas and Mr. Richard Simoes. It was guided and edited by Ms. Tina De Santa Tereza, Lecturer, Department of Commerce.

Objectives

- To study the various types of Goan handicrafts promoted and marketed in the state by GHRSSIDC
- To study the sales outlets and marketing strategies of GHRSSIDC, to help the artisans.
- To study about the assistance provided to small-scale industries by the corporation.
- To study the various self-employment schemes started by GHRSSIDC in creating employment.

Methodology

The data was collected through primary and secondary sources. The primary data is acquired through observations, questionnaires, and personal interviews with personnel from the GHRSSIDC head office and the emporiums. A small sample of artisans and entrepreneurs was also selected to appraise the performance of GHRSSIDC. The secondary data is obtained from various books, periodicals, websites, annual reports, leaflets and booklets on the Corporation.

GHRSSIDC: An Outlook

Goa Handicrafts and Rural Small Scale Industries Development Corporation, Ltd. (GHRSSIDC) is a fully Government owned Corporation. It initiated in October 1980 with the sole purpose of helping the small scale and cottage industries in the state of Goa and supporting the artisans and the craftsmen who preserve the ancient culture of Goa through their works of art. The head office of the Corporation is situated in the outskirts of the capital city, Panjim. The other production and marketing centres are situated in the various parts of Goa.

The corporation has its Board of Directors appointed by the Government to look after the management of the Corporation. The Corporation has three important departments viz. personnel department, marketing department, and finance department.

Handicrafts: Base of GHRSSIDC

Handicrafts in Goa have permeated the very fabric of society. Thus, one of the main purposes of this Corporation is to promote these talents and to keep the

traditions of Goa alive to its fullest. In ancient times, Indian artisans believed that they had descended from a creative godhead, "Vishvakarma", the architect of gods, popularly known as the 'Lord of all arts'. However, Goans in particular have a distinctive genius to take in and absorb foreign elements too. Thus, the present glory, art and craft of Goa are the product of the aesthetic blend of Portuguese and Indian cultures. This has left the imprint on the handiworks of Goa in a unique manner to its core. GHRSSIDC holds handicrafts as having a glimpse of tradition and culture, which is done manually and with a creative sense.

The various Goan handicrafts promoted by the Corporation are:

Brass Metals moulded into different shapes and designs such as oil lamps, hanging oil lamps, candle stands, ashtrays, statues, temple towers, church bells, utensils etc.

Pottery and Terracotta a primitive art that has transcended many generations and include utility-cum-decorative items like ashtrays, pots, penholders, decorative flowerpots, bowls with floral designs and figurines of saints, animals and gods.

Wooden lacquer ware where the tree wood is manipulated with great dexterity to create a variety of decorative cum utility items such as attractive toys, cradles, baby carts, corner stands, etc

Paper Mache includes flower vases, masks, wall hangings, pen stands, pin boxes and even jewellery boxes.

Bamboo Craft is also an ancient art in Goa that originated with the Mahar community who produced items for farmers and fishermen and includes flower baskets, mats, flowerpots, letter holders, pen stands, fans, decorative items, and lightweight yet adorning furniture for all purposes.

Wood Carving includes impeccable items like mirror frames, boxes, photo frames, bookshelves, idols, and variety of other products.

Sea- Shell Craft is a full-fledged handicraft item as Goa is a land filled with beautiful beaches where one can get varieties of shells and corals. It includes lampshades, ashtrays, coasters, chandeliers, curtains, pot hangers, table lamps, tablemats, clocks, and mirror frames etc.

Crochet and Embroidery is still in its infancy. The works of art include tablecloths, children and ladies garments, pillow and cushion covers, linen that forms a magnificent apparel range.

Fibre Craft includes shopping bags, ladies' purses, coasters and wall hangings and other essential accessory items used for daily purposes like colorful masks and tablemats woven from sisal, banana, pineapple, or coconut fibre.

Jute Macramé Craft comprises of decorative bags, belts, wall hangings, lampshades, flowerpots, hangers, etc.

Coconut Mask Carving and other Crafts include showpieces, light lamps, hair bands, hangings, ear rings. Metal embossing, cloth embossing, fabric collage are the recent inclusion in the galaxy of Goan crafts. Silver and imitation jewellery, cotton dolls and soft toys, wooden tapestry, nib painting, pot painting, candle making, nail painting, cone ceramics, flower making, stain glass painting, rubber mould making, and artistic weaving are also fast growing in the state of Goa.

GHRSSIDC: A Boon to the Artisans

The Corporation assists all types of artisans based in Goa and those who produce crafts that have a demand in the market from the locals as well as foreigners. The artisans can register themselves with the Corporation by obtaining the Certificate of Registration from the 'Handicrafts Ministry of Textile' Panjim, a Central Government office. The Corporation then buys the handicrafts from the artisans and sells them in the market through their sales outlets and emporiums. The Corporation also provides free training programmes to the artisans as directed by the Development Commissioner of handicrafts, Government of India, New Delhi.

The various training programmes include painting, designing, idol making, wood carving, making imitation jewelry, candle making, pottery painting, etc.

Another way the Corporation augments the artisans is through organizing handicrafts exhibitions. These exhibitions are called as '*Aprant Maand*' and held in and around the state of Goa.

The notification of the exhibitions is usually given in the newspapers. The Corporation also holds the exhibitions in other states with the help of other Government corporations like Industrial Development Corporation, UNIDO (United Nations Industrial Development Organization), etc.

The corporation also helps in marketing and sale of handicrafts through their sales outlet called as emporiums. The emporiums are known as *Aparant*, meaning eternal and are situated in various cities in Goa. The emporiums thus display a variety and range of handicrafts to provide returns to the artisans. The Corporation keeps a 30% profit margin to itself and sells the products to the customer. It advertises the products through the newspapers, hoardings, and leaflets to attract the foreign as well as local tourists.

Inducements such as advance to the poor artisans, pre-payment, raw materials to the needy artisans, soft loans, subsidized loans etc. are endowed upon the artisans to lessen their burden of acquiring finance and procurement of materials.

Another innovative idea of the Corporation is that it puts Aparant stalls in various places of Goa during the festivals and fairs. During the Ganesh festival, various idols are sold in the market places of Ponda, Margao, and Mapusa and Vasco cities. Another example is the two GHRSSIDC stalls sited during the International Film Festival of India (IFFI) 2006 held in Panjim that displayed and sold the handicrafts of the artisans.

The GHRSSIDC has been planning to set up a crafts village at Chimbél in Tiswadi to help the artisans and to earn revenue to the State through the sale of handicrafts.

Perspective of the Artisan on GHRSSIDC

Two case studies were undertaken to know the view of the artisans on the assistance provided by the corporation.

The Corporation works to its full potential to keep the artisans content and happy, however the problems faced by the artisans like costly raw materials, high transport cost, high demand for foreign crafts and no preference given to the artisans by the emporiums of the Corporation etc. are yet to be tackled by the Corporation. The artisans are happy that the corporation sells their products in the major cities in Goa and also in the other states through the exhibitions and trade fairs. However the artisans feel that depending on the assistance by the corporation alone does not help and hence they also display their handicrafts in private emporiums and hotels. Nevertheless, the Corporation generates employment opportunities among the Goans and brings in the revenue to the state of Goa.

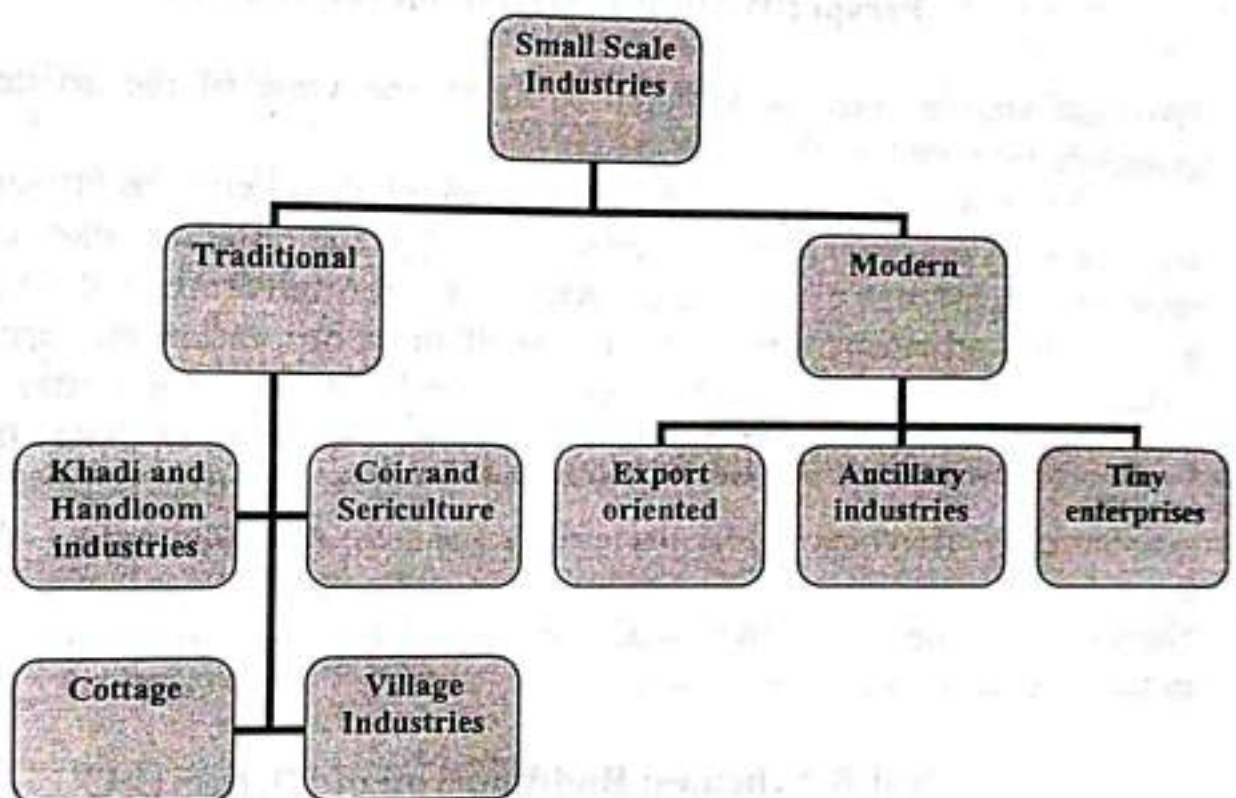
SSI & Schemes: Budding Toil of GHRSSIDC

Goa has emerged as one of favorable destination for investment. It is ranked fourth in the country by a study conducted by the Rajiv Gandhi Institute for Contemporary Studies and Confederation of Indian industry. Thus among the very few Central and State government institutions for industrial development, Goa Handicrafts, Rural & Small Scale Industries Development Corporation (GHRSSIDC) has a very significant role in industrial growth and the economic development of Goa.

Thus, GHRSSIDC is not just concerned with promoting of art and culture of Goa but is very much interested in supporting the rural and small-scale industries (SSI) and also in generating employment opportunities to the people of Goa. The classification of industries assisted by GHRSSIDC is provided in the flow chart.

However, there are various complexities and problems faced by these small-scale industries right from its birth until its peak point. Small-scale industries face problems such as licensing, finance, location, raw materials, technology, marketing, recoveries, labour, faulty planning etc. To route out some problems of these small-scale industries, Goa Handicrafts, Rural and Small Scale Industries Development Corporation comes in with its assistance to all the industries that are registered under the Directorate Trade of Industries and Commerce.

Flow Chart 1



The GHRSSIDC assists small-scale industries in solving the problem of procuring the raw material. It provides the material at a cheaper rate and of a better quality. It also provides a ready market for their products by selling them to various government departments, government undertakings, corporations, autonomous bodies, etc.

In case of regular clients, the Corporation also provides bank guarantee to the purchasing units. Hence, the Corporation's main task is to procure and distribute quality raw material to the industries at a reasonable rate.

Employment Schemes of GHRSSIDC

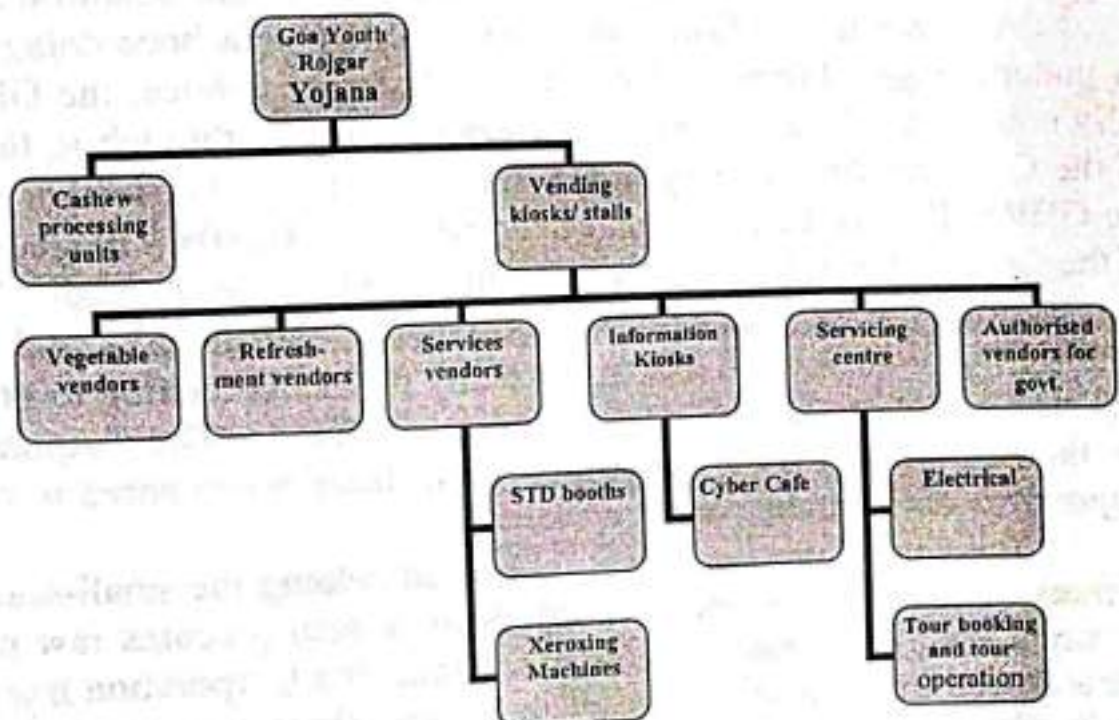
Self-employment has been identified as one of the most effective and acceptable means of reducing unemployment in the state. The schemes envisaged by GHRSSIDC create provisions for self-employment opportunity by providing the entire necessary infrastructure to commence the self-employment ventures and ease the small entrepreneur's burden.

The various schemes that are devised by the Corporation are self-employment scheme, such as Dr. Babasaheb Ambedkar Hastshilp Vikas Yojana, and the Deendayal Swayam Rojgar Yojana, which include schemes such as Pre-Employment Trainee Scheme, Telecom Technical Assistants Preference Schemes, and "one-job" per family schemes etc. These schemes no longer exist now; however they are replaced by a new Scheme known as "Goa Youth Rojgar Yojana" that has been devised recently.

The Scheme will be eligible to all the residents of Goa within the age of 15-40, having a minimum qualification of Standard VIII in any medium of instruction. The Government considering the physically challenged people has reduced their educational qualifications up to Standard III and up to an age of forty-five.

The projects/units established under this scheme are shown in the Flow Chart No. 2 given below:

Flow Chart 2



The location of the units will be at KTC bus stands, Government offices, Goa Tourism Development Corporation (GTDC) properties, public and tourist places, RTO offices, etc. where the activities can take place within the properties of the Government.

The GHRSSIDC does not allow items like liquor or any tobacco products to be sold in the stall. The GHRSSIDC carries out annual inspection of the units/projects and certifies that the person whom the project is sanctioned to is carrying out the business as authorized.

It was observed that there has been a good response from the youth to these schemes and at present there are 89 beneficiaries throughout the state. A case study undertaken on one of the youth beneficiaries of GHRSSIDC shows that this scheme has been a boon to him and is helping him to build a financially strong future. Thus, the Goa Handicrafts, Rural and Small Scale Industries Development Corporation is doing its best to route out employment problems among the Goan youth and to provide a better life in the fast growing world.

Conclusion

GHRSSIDC came into existence to help artisans and to assist the small proprietors and in fact help them to make use of the wonderful gift of nature, called creativity. While the whole of Goa has started to ape the western culture, there are very few who glue themselves to the tradition and culture of Goa. Nevertheless, these petty things do not impede the artisans in creating the works of art to keep the uniqueness of the culture of this beautiful state alive.

As a whole, the Corporation (GHRSSIDC) has been doing very well in its undertakings. Having just celebrated its Silver Jubilee, the GHRSSIDC is fully committed to the promotion of handicrafts and through it, the well being of the Goan artisans and craftsmen. Interestingly another feather in the cap of the GHRSSIDC is the novel plan to commence a **Crafts Village** to the benefit of the Goan artisans, which will be set up at Chimbél in Tiswadi.

However the Corporation has to work authentically and earnestly to enhance the artisans, who are facing many problems relating to raw materials, cost of production, etc, in creating these handicrafts. The Corporation should see that the artisans get a rather high profit margin compared to other private emporiums of the State.

The Corporation is also at its best in helping the small-scale industries in marketing the goods produced by them. It also procures raw materials for the small scale industries. On the other hand, the Corporation has been facing a few losses in the past two years in helping these industries. Thus it has to rectify its inaccuracies and see that it also makes some profits. The

Corporation by promoting these industries provides employment, helps in the growth of large-scale industries, raises national income, etc.

The Corporation has been doing well in providing employment to the people of Goa through its employment schemes. These schemes are very beneficial to the unemployed as they provide them their daily bread.

In the fast emerging global village, the Goan villages need to be strengthened and their contribution should be encouraged. It is the right time for the people of Goa to save the culture and traditions of Goa by patronizing its art and by supporting the small scale industries of our beautiful state, Goa.

References

- Desai, Vasant. 2001. *Small scale industries and entrepreneurship*. Mumbai: Himalaya Publishing House.
- Doshi, Saryu. 1986. *Goa cultural patterns*. Mumbai: Marg Publications.
- Gomes, Olivinho J. F. 1995. *Goa*. New Delhi: National Book Trust Publishing Ltd.
- Kale, N.G. 1997. *General management*. Mumbai: Manisha Prakashan Publications.
- Rajendran, S. 1986. *Handicraft survey report: wood carving in Goa*. Goa: Government of Goa, Daman and Diu.
- Herald*. 4 October 2006.
- Herald*. 11 November 2006.
- www.clickgoa.com/arts/handicrafts-Goa
- www.clickgoa.handicrafts

गोंयचे सांस्कृतीक जिणेंत लोकवेदाचें महत्व: एक अभ्यास*

गोंयचे सांस्कृतीक जिणेंत लोकवेदाचें महत्व: एक अभ्यास ह्या अभ्यास प्रकल्पांत सगळे मेळून पांच पाठ आयल्यात. गोंयच्या सांस्कृतीक जिणेंत लोकवेद कितलो महत्वाचो आसा आनी गोंयच्या लोकांची जीण लोकवेदांत कशी बांदिल्ली आसा हें समजून घेवपाचे नदरेन ह्या प्रकल्पाची रितसर मांडावळ केल्या. ती अशी:

१. विशयाची वळख.

२. गोंयच्या सांस्कृतीक जिणेंत लोकवेदाचें महत्व.

३. धार्मीक जिणेंतल्यान लोकवेद.

४. सांस्कृतीक जिणेंतल्यान लोकवेद.

५. लोकवेदाचें अद्भुत आंग.

विशयाची वळख

लोकवेद हें उतर लोक आनी वेद अशी दोन उतरां मेळून तयार जालां. लोक म्हळ्यार एका विचारांचो समुह करून रावपी आनी वेद म्हळ्यार ताणीं रचिल्ल्यो आनी घडयल्ल्यो गजाली. लोकवेदांत सगळें येता. मनशान मनशाखातीर जें कितें घडयलां आनी जें कितें मनीस मानता तो लोकवेद. देखीक: मुळाव्या गरजांखातीर मनशान न्हेसण, रावपाक घर आनी पोट भरपाक अन्न-धान्य तयार केलें, काळजातले उमाळे उक्तावपाखातीर ताणें लोकगितां आनी लोककथा रचल्यो. नाचपाखातीर शिंगमो, धालो घडयल्यो. उपरांत तरेकवार वाद्यां आनी हस्तकला जल्मांक आयल्यो. देव देवस्पणां, पुजा, घाडी-भगत, भट- पुरयत, भुतावळ, शास्त्रां होय लोकवेदाचोच एक भाग जावन आसा.

मनीस संवसाराच्या माथ्यार खरयूंय पावलो वा तो कितलोय सुदरलो म्हूण आपणाल्या जिवितांतलो लोकवेद तो कुशीक काडपाक शकना. जल्माक येता सावन ताची

* हो अभ्यास प्रकल्प कु. भक्ती शिरोडकार आनी कु. नंदिता आजगांवकार हाणीं संशोधन करून केल्लो. प्रा. भालचंद्र गांवकार, कोंकणी विभाग मुखेली हाणी तो मार्गदर्शित आनी संपादित केल्लो.

पुराय जीण लोकवेदान बांदून दवरिल्ली आसता. भुरगें जल्माक येता तेन्ना ताचे जल्म संस्कार, (सटी, बारसो, वढदीस) करतात. व्हडलो जालो म्हणटकीच मुंज, लग्न करचें पडटा. मेल्या उपरांत लेगीत ताचे मरण संस्कार आसतात. आनी ते मनीस ना चुकतां करताच.

मनीस मेल्या उपरांत मनशाल्या मड्याचो कांयच उपेग नासता. तरीय तो मेले उपरांत मनीस तागेल्या मरणाचेर खर्च करता. हो खर्च म्हणल्यार लोकवेदाचोच भाग. मनशान उक्तो रावपाक फावना. ताणे न्हेसपाक जाय. हें लेगीत आमकां लोकवेदूच शिकयता. खर्च म्हळ्यार मनशालें जिवीत लोकवेदासावन कुशिकूच काडपाक मेळना. इतलो लोकवेद मनशाल्या रगतांत भरिल्लो आसता. लोकवेद म्हणल्यार मनीस जिणेची, ताच्या संस्कृतायेची आनी मनीस ज्या समाजांत रावता त्या समाजाची खरेली वळख. मनीस ही वळख सांडय नासताना आपलो लोकवेद वा संस्कृताय सांबाळून कशे तरेन जगता ताचो अभ्यास ह्या अभ्यास प्रकल्पांत केला.

गोंयचे सांस्कृतीक जिणेंत लोकवेदाचे महत्व

गोंयकारासारखो मनीस संवसारांत हेर कडेन खंयच पळोवक मेळचो ना. हेरांचें आदर तिथ्य करपांत आसूं, दान धर्म करपांत आसूं वा हेराच्यो चाली-रिती आपणांवपांत आसूं, तो मनांत सामको नितळ. संवसारांत तो खयूंय पावलो आनी खयूंय रावलो तरी तो आपणाल्या घरांत ल्हानशें गोंय तयार करता. ताकां नुस्ते खूप आवडटा. चड तेप शिवराक रावल्यार तो दुयेंत पडटा. देखून शिवराक वाठारांत गोंयकार चड काळ तिगना.

चडसो गोंयकार आस्तीक. ताकां देवसपण खूप लागता. गोंयकाराच्या देवस्पणांक लागून गोंयकारान सगळ्या संवसारान आपली वेगळी अशी सुवात तयार केल्या. गोंयच्यो धालो, फुगड्यो, रणमालें, गोंयचो जागोर, इतलेंच न्हय जाल्यार गोंयची गितां, ती मागीर लग्नाची आसूं, हळडी कडलीं आसूं, बारश्याचीं आसूं, वा हेर कसल्याय कामा वेळार म्हणपाचीं आसूं, सगळ्या संवसार भर फामाद आसात. शेतांत काम करताना, दात्याचेर दळटाना, वा मुसळान कांडताना तांकां उर्बा मेळची, काम करपाक उमेद येवची म्हूण ताणीं गितां तयार केलीं आनी हींच गितां मुखार त्या त्या समाजांतली एक चाल जावन पडली. गोंयात सण आनी उत्सव सुमाराभायले मनयतात. दिवाळी, कार्नीवाल आनी चवथ हे

पुराय जीण लोकवेदान बांदून दवरिल्ली आसता. भुरगें जल्माक येता तेन्ना ताचे जल्म संस्कार, (सटी, बारसो, वढदीस) करतात. व्हडलो जालो म्हणटकीच मुंज, लव्ज करचें पडटा. मेल्या उपरांत लेगीत ताचे मरण संस्कार आसतात. आनी ते मनीस ना चुकतां करताच.

मनीस मेल्या उपरांत मनशाल्या मड्याचो कांयच उपेग नासता. तरीय तो मेले उपरांत मनीस तागेल्या मरणाचेर खर्च करता. हो खर्च म्हणल्यार लोकवेदाचोच भाग. मनशान उक्तो रावपाक फावना. ताणे न्हेसपाक जाय. हें लेगीत आमकां लोकवेदूच शिकयता. खर्च म्हळ्यार मनशालें जिवीत लोकवेदासावन कुशिकूच काडपाक मेळना. इतलो लोकवेद मनशाल्या रगतांत भरिल्लो आसता. लोकवेद म्हणल्यार मनीस जिणेची, ताच्या संस्कृतायेची आनी मनीस ज्या समाजांत रावता त्या समाजाची खरेली वळख. मनीस ही वळख सांडय नासताना आपलो लोकवेद वा संस्कृताय सांबाळून कशे तरेन जगता ताचो अभ्यास ह्या अभ्यास प्रकल्पांत केला.

गोंयचे सांस्कृतीक जिणेंत लोकवेदाचे महत्व

गोंयकारासारखो मनीस संवसारांत हेर कडेन खंयच पळोवक मेळचो ना. हेरांचें आदर तिथ्य करपांत आसूं, दान धर्म करपांत आसूं वा हेराच्यो चाली-रिती आपणांवपांत आसूं. तो मनांत सामको नितळ. संवसारांत तो खयूंय पावलो आनी खयूंय रावलो तरी तो आपणाल्या घरांत ल्हानशें गोंय तयार करता. ताकां नुस्ते खूप आवडटा. चड तेप शिवराक रावल्यार तो दुयेंत पडटा. देखून शिवराक वाठारांत गोंयकार चड काळ तिगना.

चडसो गोंयकार आस्तीक. ताकां देवसपण खूप लागता. गोंयकाराच्या देवस्पणांक लागून गोंयकारान सगळ्या संवसारान आपली वेगळी अशी सुवात तयार केल्या. गोंयच्यो धालो, फुगड्यो, रणमालें, गोंयचो जागोर, इतलेंच न्हय जाल्यार गोंयची गितां, ती मागीर लग्नाची आसूं, हळडी कडलीं आसूं, बारश्याचीं आसूं, वा हेर कसल्याय कामा वेळार म्हणपाचीं आसूं, सगळ्या संवसार भर फामाद आसात. शेतांत काम करताना, दात्याचेर दळटाना, वा मुसळान कांडताना तांकां उर्बा मेळची, काम करपाक उमेद येवची म्हूण ताणीं गितां तयार केलीं आनी हींच गितां मुखार त्या त्या समाजांतली एक चाल जावन पडली. गोंयात सण आनी उत्सव सुमाराभायले मनयतात. दिवाळी, कार्नीवाल आनी चवथ हे

हालीच्या काळातले उत्सव. पूण शिगमो, धलो, जागर हे आदल्या काळासावन परंपरेन दायज मुखार घेवन चलपी सण आनी उत्सव. ह्या दर एका परंपरेतल्यान आमकां आमची गोंयची संस्कृताय दिश्टी पडटा.

गोंयची संस्कृतीक जीण मतींत धरताना आमची पुराय जीण ही लोकवेदाच्या आदारार आसा अशें म्हणल्यार तातूंत इल्लीय अतिताय जावची ना. लोकवेदांतल्यान आमी अमचे भोवतणी एक वलय तयार केलां. आनी त्याच वलयांत आमी अजूनय जगपाचो हावेस दवरतांत. मनीस कितलोय शिकलो सवरलो, तो गांवगिरो वाठार सोडून पयस शारी वाठारांत पावलो, ताणीं कितलीय गिन्यानाची प्रगती केली तरीय तो देवावयली श्रद्धा उणी करिना. भूत-भुतावळीच्या जवंजाळातल्यान भायर सरना. आनी घाडी भगताच्या फुड्यान वचून आपल्यो अडी-अडचणी मांडले बगर रावना. कसल्याय बऱ्या कार्याक वेळ पळोवप, प्रसाद पाकळी घेवप, सत्यनारायणाची पुजा करप, देवचाराक सुर-रोट घालप, आंगवण करप, देवाक सांगणी करप हें ताकां लागताच. जायते गोंयकार गांवगिरो वाठार सोडून काम धंद्याच्या निमतान शारांत रावतात. थंय लेगीत गांवच्यो चाली-रिती ते पाळटात. गांवात घरा मुखार आंगण आसता. आंगणांत तुळस आसता. पूण पल्लंटांत रावपी लोकांक आंगण करपाक मेळना. तरी पल्लंटाचे गच्चीर ल्हानशी तुळस दवरून स्वताचें समाधान करून घेतात. चडशा गोंयकारांक ग्रामदेव, कुळदेव लागता. वर्सांतल्यान एक फावट तरी ते गांवात वचून देवाची भेट घेतात. त्या भायर जात्रा वा उत्सव आसता तेन्ना ते मुजरत थंय वतात. तिर्थ प्रसाद घेतात. चवथ, दिवाळी, तुळशिचे लग्न, नाताळ, इद ह्यो परबो ते चुकयनात.

दर एकटो मनीस आपली संस्कृतीक जीण जगताना आपल्यो कांय पुर्वापार चलत आयिल्ल्यो परंपरा घेवन जगता. कारण मनीस हो धर्म समुहांत जगता. आनी दर एक धर्म आमकां आपलें खाशेलेपण जपपाक शिकयता. दर एका धर्माक, समाजाक आनी जातीक एक खेरीत खाशेलपण आसता, आनी तें म्हळ्यार तांची संस्कृताय. तांच्या जिणेतल्यान दर एका घडणुकेतल्यान आमकां दिश्टी पडटा.

जायते फावट मनीस शिकून सुदारता. अशें आमी म्हणटात. पूण शिकप म्हणल्यार आमची संस्कृताय विसरप असो ताचो अर्थ जायना. आपली संस्कृताय सामाळून जगप म्हणल्यारूच खरें शिक्षण अशे धरून चलूंक जाय. जायते फावट मनीस अडाणी पणान असल्यो गजाली मानिनात वा ताकां त्यो मनातल्यान मानपाच्यो नासतात. तरी पूण ज्यो

गजाली परंपरेन चलत आयल्यात त्यो घरातल्या वा समाजातल्या लोकांखातीर मानच्यो पडटात. देखीकः कोणूय सुदारिल्लो मनीस जेन्ना लग्न जाता तेन्ना ताकां ज्यो धार्मीक विधी आसतात त्यो करच्योच पडटा. आनी त्यो तो करताय बी. कारण मनीस हो देव-देवचार मानपी आशिल्ल्यान ताका त्यो करप गरजेचें आसता. ते लग्न मागीर जाती भायर आसूं वा जाती भितर आसूं. जो मेरेन सगल्यो धार्मीक विधी करून तो लग्न जायना तो मेरेन घरातलीं वा ताचो समाज तांकां स्विकार करिना. आनी घडये तांकां आपल्या संवसारांत सुख मेळटले वा ना हाची भिरांत दिसता. देखून मनीस जिणेक आपली जीण जगताना आपली संस्कृताय कितली गरजेची ताचो दिश्टावो सहज पणान घडूं येता.

मनशाची जीण तरेकवार घडणूकानी भरिल्ली आसता. ताचे जीणेंत सुखां आसतात तेचपरी दुखांय आसतात. त्या दुखांक काय खीण तरी विसरपाखातीर तो कांय संस्कृतीक कार्यावळिंचें आयोजन करता. ल्हव-ल्हव त्यो कार्यावळी भौशिकतायेचें रूप घेता आनी हातूंतल्यानूच लोकसंस्कृतायेचो जल्म जाता. तशेंच मनीस आपले जिणेंत जी कर्मा करता ती लिपोवपाखातीर ताणें देवळा तयार केलीं. त्या देवळानी मुर्त्यो बसयल्यो आनी तांची पुजा करपाची रीत सुरू जाली. अशे तरेन कर्तुपां भोगसुवपाच्या हावेसान देवाची संकल्पना तयार जाली. देवाचो आदार घेतलो. आपलें जैत मनोवपाखातीर देवाक होरायले. आनी देवाक होरायताना. देवाची तोखणाय करपाक वेगवेगळ्या कार्यावळिंचें आयोजन केलें. आदल्या तेंपार अशेंच जालां आसतलें आनी अशे तरेन काले, उत्सव, आनी वेगवेगळ्यो सण परबो तयार जाल्यो आसतल्यो.

गोंयकारांक शात्रां खूप लागतात. सुयेर, सुतक, भस्टकार ह्यो गजाली तांकां आजून लागतात. भुरग्यांचो जल्म जाता तेन्ना सटी, बारसो करप, होम घालप, दिस्ट काडप, भुरग्यांचे कान तोपप, बातिज्म करप, नांव दवरप, जायवळ काडप ह्यो गजाली आजून चलतात. लग्नाच्या वेळार सोयरीक करप, साकरपुडो करप, देवकार्य करप, दोत दिवप, वर्जी पावोवप आदी गजाली लोक आजूनय करतात. मरण संस्कारामदीं सुतक धरप, मरणविधी करप, अस्ती उदकांत सोडप, बारावो करप, वाडी दवरप, सवाशीण वाडप. वर्सश्राद्ध वाडप ह्या गजालींक लोक अजूनय महत्व दितात. गोंयकार भुतांक आजूनय मानतात. खेत्री, मुंजो, आळवतीण, समंद ह्या भुतांचीं नावां घेतल्यार गोंयकाराच्या आंगार कांटो उबो रावता. गोंयकार आनी लोकवेद वेगळे काडप म्हळ्यार साखरेतल्यान ताची गोडसाण वेगळी काडिल्लेवरी जातली.

धार्मीक जिणेतल्यान लोकवेद

दर एका मनशाली जीण ही धार्मीक चाली रितीनी बांदून उरल्या. जेन्ना सावन संवसारान धर्माची प्रथा सुरू जाली तेन्नासावन धार्मीक विधीय सुरू जल्यो. मनशाक संवसार करतलो जाल्यार जिणेचो जोडिदार वेंचून काडचो पडटा. तो जोडिदार धार्मीक विधी करूनच जोडचो पडटा. अशे तरेन मनशाले जिणेंत जायत्यो धार्मीक चाली रिती आसतात. आनी त्यो तांकां मरसर पाळच्यो पडटात. मनशाच्या जल्मासावन मरणामेरेनच्यो सगल्यो विधी केले बगर ताका जिणेत मुक्ती ना अशें म्हणटात. मनीस धार्मीक जीण जगताना ती कशेतरेन जगता आनी त्यो धार्मीक चाली-रिती कशे तरेन पाळटा तें सकयल्या गजालितल्यान पळोवक मेळटा.

साकरपुडो, लग्नाची हळद, वेडो/चुडो, निकाह, तेल, पुण्यवाचन, लग्न, घरभरोवणी, वजें, आशाडवजें, चवतिचें वजे, दिवाळेचें वजें, पाचवी, फुलां, सटी, बारसो, जावळ, बारावो, सुतक, मसंड क्रीया, मरणसंस्कार, पींड दान, होम, आरत आदी गजालिंचो आस्पाव ह्या प्रकरणांत जाला.

सांस्कृतीक जिणेतल्यान लोकवेद

दर एक मनशाची जीण ही वेगवेगळ्या तासांनी भरिल्ली आसता. ताकां धर्म लागता, देव लागता आनी ह्या प्रकारातल्यानूच ताच्या संस्कृतायेचो जल्म जाता. ज्या मनशाक वा वाठाराक सांस्कृताय ना ताकां आमच्यानी धर्म म्हणूंक जावचो ना. दर एका समाजाची वळख ही ताच्या संस्कृतायेन भरिल्ली आसता. ती संस्कृताय म्हळ्यारूच ताची खरेली वळख आसता. ह्या मुळ म्हालवजार आमकां संस्कृतायेची जायतीं आंगा सामाळचीं पडटात. ह्य आंगांकूच जायते फावट आमी लोकवेद अशें म्हणटात. आमच्या सर भोवतणी संस्कृतीक नदरेतल्यान जें जें कितें चलता ताच्यो घडणुको म्हळ्यारूच लोकवेद.

होळी, दारातली तुळस, गोकुळ अष्टमी, जायांची पुजा, गुडी पाडवो, घरप्रवेश, आयतार, तरेकवार खाणां-जेवणां, तोरण, सवाशिर्णीक वाडप, बिकन्या जेवण, माटोळी, धालो, फुगडी, शिंगमो मेळ, संक्रांत, रांगोळी, उरूस, वडापुनव, पालखी, महाशिवरात्री, नागपंचम ह्या गजालिंचो आस्पाव ह्या पाठांत जाला.

लोकवेदाचें अद्भुत आंग

आमच्या गोंयाक फाटल्या कितल्याश्याच वर्सांचें दायज आसा. ह्या दायजान लोकवेद भल्ला. त्या भायर धार्मीक जीण आसा, संस्कृतीक आंग आसा. तशेंच भूत-भुतावळिचें रूप आसा. देखून गोंयात देव आसा, देवचार आसा, भूत आसा आनी ह्या भुता-खेतांक मानपी तांत्रिकूय आसात. गोंयच्या लोकवेदाचें जितलें सार्दें सोपें आनी स्पश्ट रूप आसा तितलेच प्रमाणान ताचें अद्भुत आंग लेगीत आसा. गोंयकार ह्या अद्भुत आंगांक कशे तरेन धरून बसला आनी ताची जतनाय म्हणचे परस त्या गैर समजुतीक कशी पोसवण दिता तें पळोवपा सारखें आसा.

आंगारो, प्रसाद, आंगवण, मागणेची पड, म्हारू, देवचार, भूत, निमो, सती, खेत्री, संमंद, आळवंतीण, सात्वीक देवता, खुदप, भश्टकार आदी गजालिंचो आस्पाव ह्या पाठांत जाला.

समारोप

गोंयच्या सांस्कृतीक जिणेंत लोकवेदाचें महत्व ह्या अभ्यास प्रकल्पाचो हेतू म्हळ्यार लोकांमदीं चलत आशिल्ल्यो प्रथा सोदून काडप आनी तांचें महत्व वळखप. लोकांमदल्यो चाली-रिती समाजांत आसात. आजून लोकामदीं घोळटात. मुखेल म्हणल्यार त्यो खंयच्यान आयल्यात आनी तांचे फाटलें कारण कोणाकूच खबर ना. पयलीं करताले म्हणून आतां चालू आसात.

आतां लोक सुदारला. आपल्या गांवातली मातयेचीं घरां सोडून लोक कामाच्या निमतांत शारान वचून राबितो करपाक लागला. शारानीं ताकां शारी वातावरणांत घोळपा खातीर आनी थंयच्या समाजान मेळ सादपा खातीर पलॅट घेवन रावपाक लागल्यात. पलॅटानी रावले म्हणकीत तांकां सगळेच शारी थाट करचे पडलो. थंयचो समाज आपणावचो पडलो. थंयच्यो चाली-रिती आनी संस्कृताय आपणावची पडली.

शेतकांम करपी लोकानीं शेतां सोडल्यांत. भाजी रोवप, शिपप सोडलां. पूण चाली-रिती सोडूंक नात. जशी दारातली तुळस, घरांत होम घालप, भश्टकार पाळप. रांगोळी घालप, दाराक तोरणां बांदप. देवाची पुजा करप, कितेंय वायट घडल्यार प्रसाद घेवप, कसलेंय कांम करताना देवाचो कौल घेवप. तुळशिचें लग्न करप, गाराणें घालप हें सगलें आदले वरींच चालू आसा.

देवळांत गेल्यार जोर्ती काडप, रातचो कोयर भायर घालप ना. रातचें शिवप ना, नाकटां काडप ना, आमोरेर दिवो लावप, रातचें दुसऱ्याल्या घरांतल्यान मीट हाडप ना, केस सोडून बसप ना, उपासा दिसा जमनीर बसून जेवप, अश्यो कांय रिती आसात त्यो आजूनय चलतात. खरें म्हळ्यार हे दर एके चलणुके फाटल्यान एक शास्त्रीय कारण आसा. तें कोणूच समजून घेयना.

आयज मनशान सगळ्या मळांचेर जायती उदरगत केल्या. पूण तागेल्या आचार विचारांची उदरगत जावंक ना. तो आपणाली परंपरा आनी चाली-रिती सोडून दिवपाक तयार ना. मनशाच्या भौतिक उदरगती वांगडा तागेल्या विचारांची आनी मनाची उदरगत जाल्ली जाल्यार आयज मनीस खंयचे खंय पावपाचो. पूण तशें जायना. मनीस आपणाली परंपरा सोडून दिना. हाकांच लागून आमचे जिणेंत लोकवेदाक सुमारा भायलें महत्व आयलां.

आदारावळ

भावे, भुषण. माटोळी, पणजे: सुनापरांत.

वेरेंकार, शाम. १९९१. गोंयच्या लोकवेदाचो रुपकार, पणजे: गोवा कोंकणी अकादेमी.

हाळर्णकार, तानाजी. (संपा). १९९७. कोंकणी विश्वकोश - खण्ड २. ताळगांव: गोंय विद्यापीठ.

हाळर्णकार, तानाजी. (संपा). १९९९. कोंकणी विश्वकोश-खण्ड ३. ताळगांव: गोंय विद्यापीठ.

हाळर्णकार, तानाजी. (संपा). २०००. कोंकणी विश्वकोश-खण्ड ४. ताळगांव: गोंय विद्यापीठ. सरदेसाय, मनोहरराय. (संपा). १९९१. कोंकणी विश्वकोश- खण्ड १. ताळगांव: गोंय विद्यापीठ.

DATA MANAGEMENT SYSTEM FOR ADVENTURE STUDIO*

This article deals with development of a software using principles of software engineering. The software is developed for Adventure Studio to maintain the details of the services to be rendered.

This particular project report deals with computerization of a manual system, with the basic objective of assisting the staff of Ad-venture. This system is developed keeping in mind the jobs done in Ad-venture. It follows the traditional "Water-fall" model of software development which consists of the analysis, design, implementation and testing phases. The contents of this report are very qualitative and as the system is very vast in its scope and development, it can also be described as very quantitative.

1 - Introduction

The system that has been proposed is in regard with developing Computer Software for a Photographer cum Professor, which will allow him to maintain his entire schedule system and details of customers, staff and students. It also maintains the details of the services to be rendered. Some basic utility tools are maintained in this software for the convenience of the practitioner, such as the Calculator, the Yearly Calendar, etc. The Software allows the user to add schedules to the Reminders. The basic implementation of the software is to generate reports.

2 - Analysis

2.1 Proposed System

The proposed system is a computerized system, developed as an aid to a photographer. The proposed system covers up the various operations and other modules within the photographer's professional practice. The proposed system, generally consist of three basic modules, which form the entire structure of the system. These modules are as follows:

* The project report was written by Mr. Ossy Deniz, Mr. Silson D'silva, Mr. Merwyn Rodrigues, and Mr. Lawrence Pereira. It was guided and edited by Mr. Shekar B. Naik, Lecturer, Department of BCA.

- a) *Registration and Services*: This module is a product of basic functions within the professional practice of the photographer, which is combined to form the initial module of the three basic modules, all the vital aspects of registration such as registering a new student, and storing all the required information related to the customer. In addition to this, the services given to the new as well as existing customers are recorded in the proposed system.
- b) *Schedule*: This module consists of all the schedules that the photographer maintains. This module is made available in the proposed system, so that the photographer can maintain his schedule timing without any inconvenience. The above module can be classified under as Appointments, Fix-Schedules and Occasion. The proposed system is developed with the interest of covering up the following objectives of having: a faster and more accurate recording and handling of data related to Customer, Students and Staff; maintaining a computerized information database instead of manually recording them in forms of files; maintaining schedules; generating various reports on a click and; sharing various contacts, for reference purpose.

2.2 Feasibility Study

Feasibility study is an important aspect of system development to check whether the system is operable or not. It is a test of system proposal according to its work ability, impact on the organization ability to meet user needs, and effective use of resources. The feasibility study is carried out to acquire a sense of scope of the proposed system i.e. whether the new system will be useful or not. The system is tested for technical feasibility, operational feasibility and economic feasibility.

2.2.1 Technical Feasibility

The study is concerned with specifying equipment and software to support the proposed system that will satisfy the user. The software required are Visual Basic 6.0 and Microsoft Access. The hardware required are a printer, floppy and a compact Disc.

2.2.2 Operational Feasibility

This study is related to the human organization and political aspects like what changes will the system bring about, what organizational structures will be disturbed, what new skills will be required and whether the people working there have these skills.

Data entry is done through VB forms and is made easier with the help of

combo boxes and text boxes. The necessary data entry work can be done by the office staff themselves with no extra manpower. The user is also provided with a manual to assist him. Thus the staff is satisfied with this operation. It will be feasible for the staff to get the data immediately and correctly through the computer once it is computerized, and there is possibility of making an error. Lastly, the records will be perfectly and academically maintained.

2.2.3 Economic Feasibility

This study also called as cost/benefit analysis determines the benefits and savings as compared with the costs. This is the most important aspect of feasibility study. The package being developed is feasible from economic point of view because the hardware and the software requirements maintained are minimum.

3 - System Design

3.1 Data Dictionary

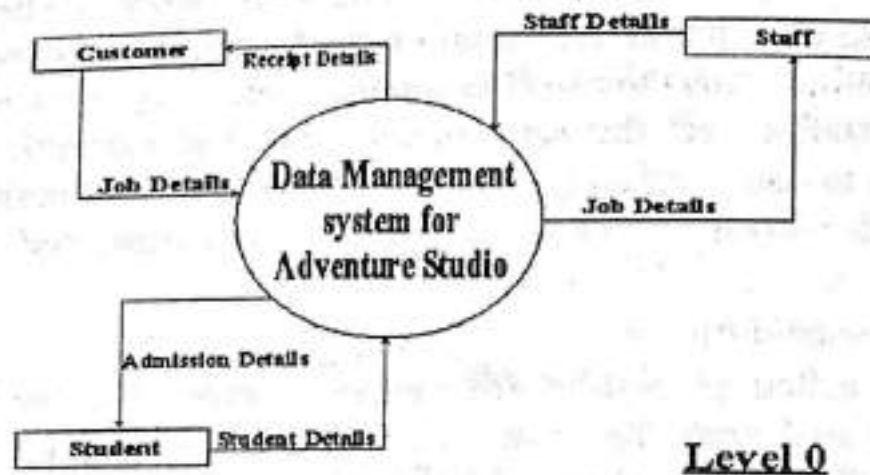
Data dictionary design is an analysis tool used in system analysis. A data dictionary can be defined as "A structured repository of data about data". A data dictionary provides a detail reference to every data item, that is, the various names by which the items are represented in different program modules, different data structures used to represent items, modules where data item were generated, where it is stored and destroyed. It is extremely detailed and useful for consistency check, system modification and completeness checking. Thus Data Dictionary is composed of definition of data flows, files, data used within processes and their eliminatory parts. Data dictionary establishes consistent definition as various elements, terms and processes

3.2 Data Flow Diagram

DFD is a graphical description of a data-flow and the processes which transform the data. Data flow diagrams are constructed using:

- Arrows which specify the data flow or data in motion or pipelines through which information flows.
- Circles for processes that convert data or outgoing data flows.
- Open-Ended Box that represents a dataflow, and
- Squares which define the source (originator) or destination of system data.

Context Diagram



Level 0

Fig: Context level DFD

3.3 Entity Relationship Diagram

Entity relationship diagram is a set of vertices representing the entities from the domain, and edges representing the relationships that exist between entities.

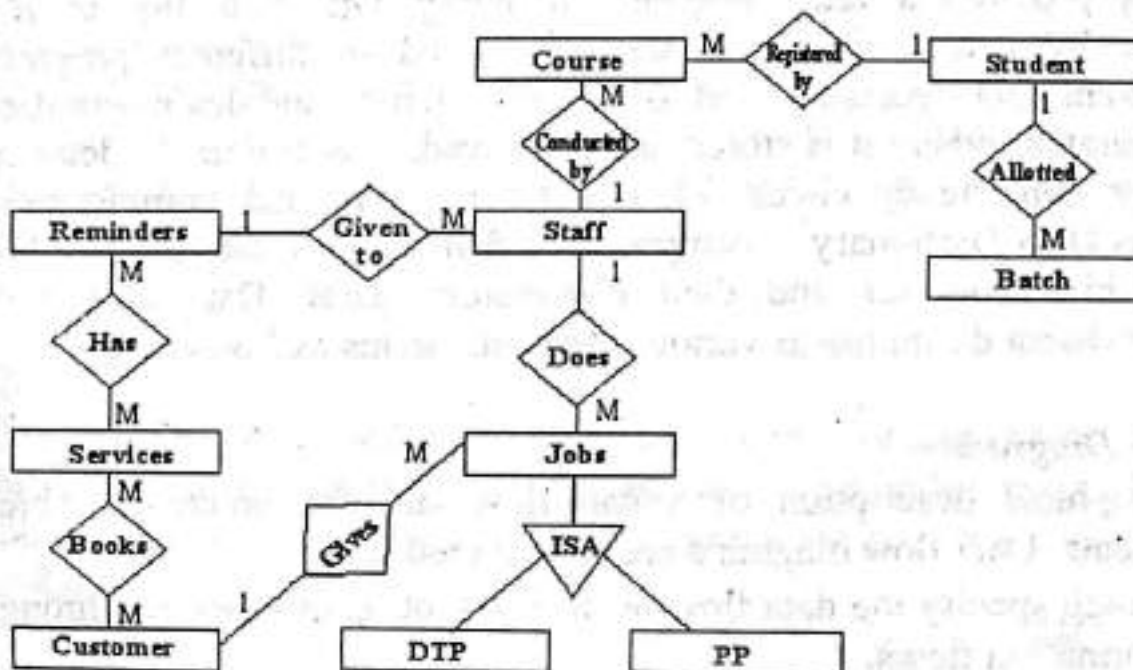


Fig: Entity Relationship Diagram

The following relational schemas are derived from the above ERD.

- *Registration(id PK, date, stdName, dob, gender, address, phone, email, cid FK)*

This relation stores detail of the Registration.

- *Contacts(id PK, cName, cAddress, cPhone)*

This relation stores detail about contacts.

- *Receipt(id PK, rptName, rptDate rptMode, amount, cheque)*

This relation stores details about the amount received and from whom it was received with the date.

- *Payment(id PK, payName, payDate, payMode, amount, cheque)*

This relation stores details about the amount paid with the date

4 - System Implementation

4.1 Hardware and Software Configurations

The Hardware required is Pentium Processor Pc, minimum 32MB RAM, minimum 30MB free Hard Disk Space, CD-ROM Drive, Printer, Floppy and Disk Drive. The software configurations consist of Microsoft Windows 98/2000 and Microsoft Access 97/2000/x-32 bit file system.

4.2 Prologue to Software

4.2.1 Microsoft Visual Basic

Visual programming aims at providing the users with an interface that is intuitive and easy to use. A visual programming provides all features that are required to develop a graphical user interface as ready to use components. Visual basic 6.0 is not just a language, it is IDE on which user can develop, run, test, and debug his applications. It is a structured programming language and a complete application development tool for MS Windows 98 operating system. It enables the user to design forms and window using controls such as command buttons, radio buttons, check boxes and scroll bars, thus reducing the number of hours required for detailed programming of these components. The most advanced edition of VB includes all the features of professional edition plus tools such as designing dynamic hypertext markup language (DHTML) applications and Internet information server (IIS) application.

Programming in Visual Basic enables development of a graphical user interface, adding components from an inbuilt toolbox, moving, resizing and deleting components and drawing graphical elements on the surface of the form.

4.2.2 About MS - Access

MS - Access is a powerful multi-user developed by Microsoft Corporation. It can be used to store and manipulate large amount of information. Data in MS-Access is organized in the form of tables within a table; records are arranged according to a common reference value, known as primary key or the key field. The value in the primary key of the field is different from every record and thus helps to uniquely identify records. A relation between two or more tables is maintained through a common field between them, which is known as foreign key. In our application MS - ACCESS plays an important role of a back end tool that does all the storage of data and that of organizing it according to the primary key.

4.3 Security

Security is a very important constraint as a regard to any system. In the proposed system, the security aspect is maintained with the aid of the password security. The system has a password and in order to access the software one has to know the exact password with respect to the Login name, which is known only to the authorized and authenticated.

4.4 System Testing

Software testing is a crucial stage for the software quality assurance. It is the review of the specification, design and working. The quality assurance goal of testing phase is to assure the completeness and accuracy of the system. The following testing methods are to ensure correctness and reliability of the examination results.

4.4.1 Unit Testing

Here the entire program that makes up a system is tested for. It gives stress on modules independent of one another in order to find an error. It also provides ability to enter, modify or retrieve data and respond to different types of inquiries or print reports.

4.4.2 Integration Testing

This is the most important and essential part of the system development phase after the designing and developing the software. The purpose of this is to identify and correct errors in the candidate system after the modules are integrated.

5 - System Documentation

5.1 Scope of the proposed system

The scope of the proposed system may be limited to the assumptions of easy retrieval of data, less paperwork, simple SQL queries and promptness in service.

5.2 Limitations of the system

The system is developed taking into consideration a single user and therefore it cannot be used by multiple users or in a networking environment. Reminders should be allotted at least 5-10 minutes in advance. The Login ID and Password are not case sensitive and there are security restrictions for the databases.

5.3 User Manual

Following are the command-buttons with the events they trigger for the following form.

Save: To save any modification/updates done to records, we can use the Save button. After finishing entering the details, click save and the record will be saved.

Delete: To delete a particular record from the database.

Reset: To reset the Form.

Exit: To exit a particular form and return to the MDI form.

5.4 Reports

Reports are supposed to be the output design of the system. They determine instantly and clearly whether the software that has been developed is working and functioning smoothly and it also gives the information stored in the database. Reports are also called as the output and it forms an important part of the project. The forms that follow the description are the reports of this developed system. The reports designed were Payment Report, Receipt Report and Registration Report.

Conclusion

We have learnt that software design not coding. Coding is just one small phase in the entire process of software engineering. Software engineering principles lay more stress on the analysis, design and testing phase. We could understand the software functionality properly in the analysis phase, because of which we could allocate resources to the developers properly. This enabled us to complete the software in time.

References

- Francesco, B. 1999. *Visual basic 6.0 programming*. Microsoft Press.
- Raghu, Ramkrishnan and Johannes Gehrke. 2002. *Database management systems*. McGraw-Hill

STUDY ON RISK APPETITE AND INVESTMENT HABITS OF PEOPLE*

The article aims at studying the awareness levels of Goan investors (specifically north Goa) with regard to financial products, standard of living and investment habits.

In Goa, Motilal Oswal have a franchisee in Margao. The main branch is in Panaji which is catering to North Goa. They provide advice-based broking (equities and derivatives), portfolio management services (PMS), eBroking, depository services, commodities trading, IPO and mutual fund investment advisory services. The branch employing around eight employees and one branch head, started its operation one year back.

Introduction

The project was entitled 'Study of risk appetite and investment habits of people in and around Panaji'. Risk appetite involves being conservative, moderate or aggressive. Investment habit was gauged on the avenues opted for investment like shares, mutual fund etc. The study also covers various objectives like level of awareness of financial products, standard of living, etc. The project focused on Motilal Oswal Securities Ltd., Goa Branch which caters to customers of Tiswadi Taluka and is located in the heart of the city.

The research will help Motilal Oswal to plan the investment for the different clients depending on their risk appetite and also to know the market scenario in Panaji.

Objectives

The following were the objectives of the project:

- To create a database of people staying in and around Panaji.
- To find out the level of awareness of financial products.
- To formulate a financial game plan based on their specific needs and risk appetite.
- To find out the living standard and investment habits of people in and around Panaji.

* The project report was written by Mr. Raghavendra Totekar, Department of BBA. It was guided and edited by Mrs. Sulaksha Nayak, Lecturer, Department of BBA.

Research Methodology

The objectives of the study were accomplished by conducting a systematic market research. Market research involves systematic design, collection, analysis and reporting of the data and findings that are relevant to the company. The market research process adopted consisted of the following stages:

Data Collection

Primary Data was collected to facilitate analyses and draw conclusions. To do this the research approach followed was that of survey research. The research instrument followed was a well structured questionnaire consisting of close ended questions. Random sampling was used to select respondents from among the employed people and from businessmen and women. The size of the sample is an important element in the research process. Therefore, 100 respondents from in and around Panaji were personally interviewed. Face to face interaction method was adopted to ensure accuracy of data.

Analysing Data

Tabulation of the data helped in analyzing the raw data. Statistical techniques like frequency distribution, calculating the averages and dispersions were utilized to interpret the data.

Presenting the Findings

This phase marks the culmination of the marketing research effort. The report of the findings is a formal written document. The research findings and personal experience were used to propose recommendations.

Limitations

There were constraints in the data collection owing to the complexity of the sample. This does affect the accuracy of the data collected. However, due care was taken to use appropriate quantitative techniques while collecting and analyzing the data.

Table No.1 Investment Experience

Sample size	I have good know-ledge	Some know-Ledge But not in depth	Starting to learn
100	22	32	46

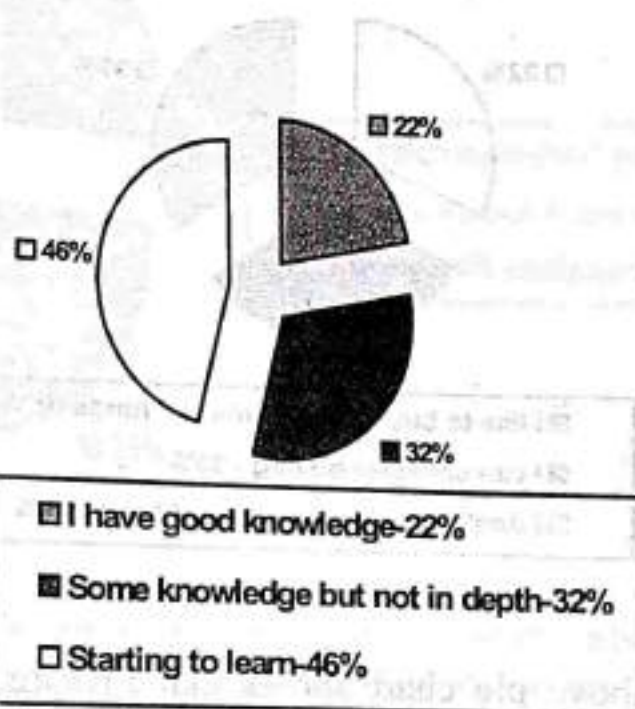


Illustration : The above pie chart is useful to know awareness and knowledge of financial product in Panaji, which shows that 22% respondents have good knowledge about financial market, 32% have some knowledge but not in depth and 46% are starting to learn, even though BSE (Bombay Stock Exchange) is one of the oldest stock exchanges in Asia.

Table No. 2 Investment Style

Sample size	I like to buy shares & mutual funds	I can consider buying	I don't buy shares & mutual funds
100	35	33	32

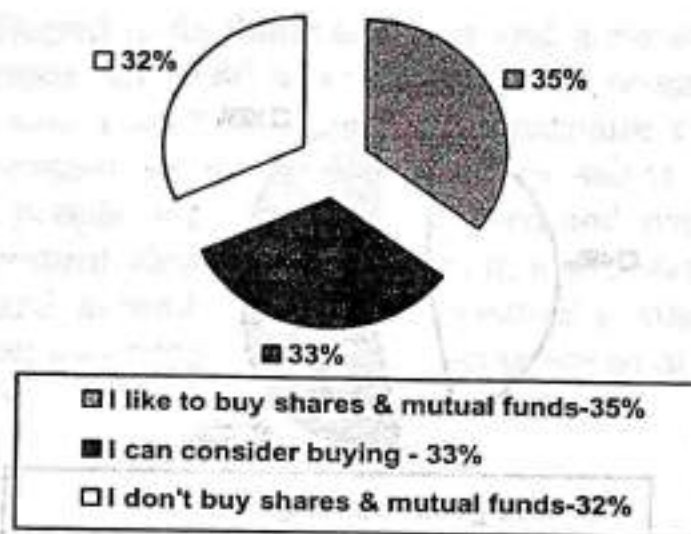


Illustration : The above pie chart shows that investment style and also risk taking ability of the respondents. A total of 35% of respondents like to buy shares and mutual funds, which means that they are aggressive in their investments. On the other hand, 33% are ready to consider buying and 32% don't buy mutual funds as well as shares but they are more into FD, insurance, NSC, PPF, etc.

Table No. 3 Investment Goal

Sample size	To watch my money grow fast	To earn income & also grow my money	Only to earn stable income
100	26	33	41

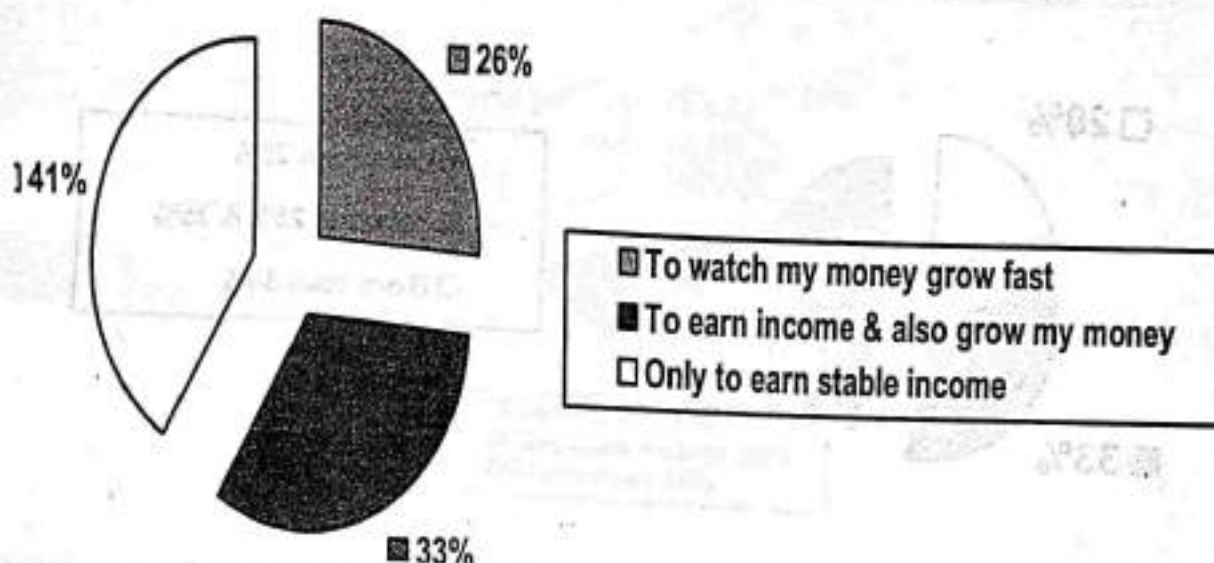


Illustration: This table and diagram is useful to know about risk appetite of the respondents. A large portion of about 41% of the total respondents, want to earn stable income which means they are conservative. Further, 33% of the respondents want to earn stable income and also to grow money. This means that 33% people are moderate and the remaining 26% want their money to grow faster.

Table No. 4 Investment Capacity

Sample size	Less than 25%	Between 25% & 35%	More than 35%
100	47	33	20

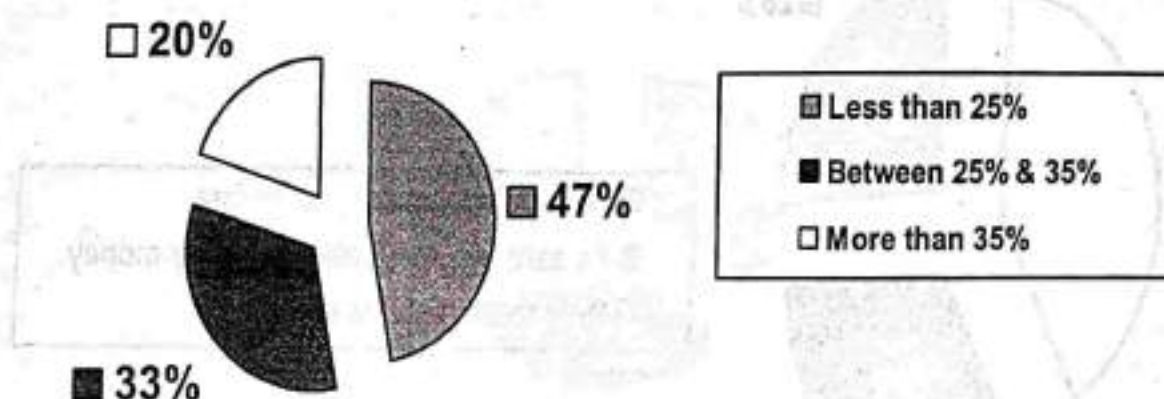


Illustration : From the above table and pie chart one can understand that 47% of the respondents want to invest 25% of their money into investments whereas 33% want to invest money from 25% to 35% and the remaining 20% can invest more than 35%. This responses tells us that 47% people are conservative, 33% are moderate and 20% aggressive.

Table No. 5 Disposable Income

Sample size	Less than 10%	Between 10% & 35%	More than 35%
100	26	43	31

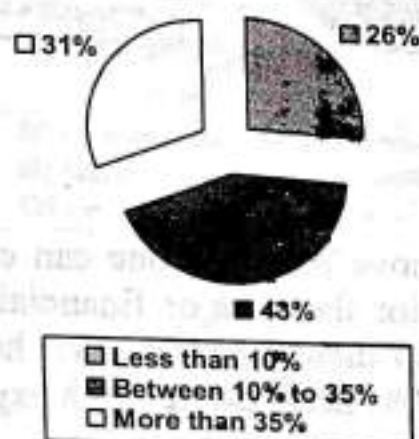


Illustration : The above table and the data can be useful to know the percentage of disposal income of the people in and around Panaji. From this data company can come up with customized product for the various categories as above. The pie chart shows that 26% have less than 10% as disposable amount, 31% are between 10 to 35% and 43% have more than 335%. This shows that a large chunk has less disposal income.

Table No. 6 Provision for Expenses

Sample size	I do not expect to have such expenses	Yes I have a separate provision for these expenses	Have no separate provision for these expenses
100	20	42	38

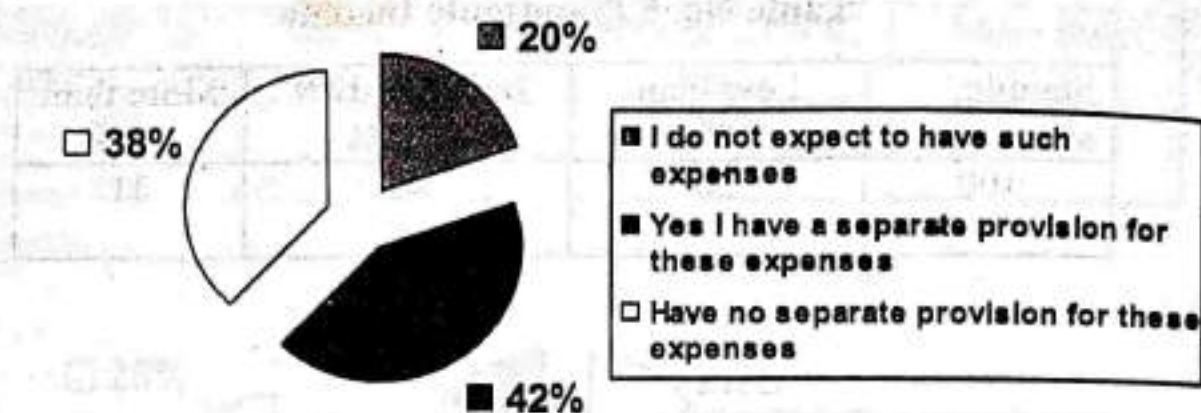


Illustration : From the above pie chart one can evaluate whether respondents have financial planning for their major financial expenses. A total of 42% have separate provision for their expenses, 38% have no separate provision for their expenses and only 20% don't expect such expenses.

Table No. 7 Financial Position

Sample size	I have complete financial freedom	I can afford to take some risk	I cannot afford to lose my money
100	30	38	32

Sample size	I do not expect to have such expenses	Yes I have a separate provision for these expenses	I have no separate provision for these expenses
100	20	42	38

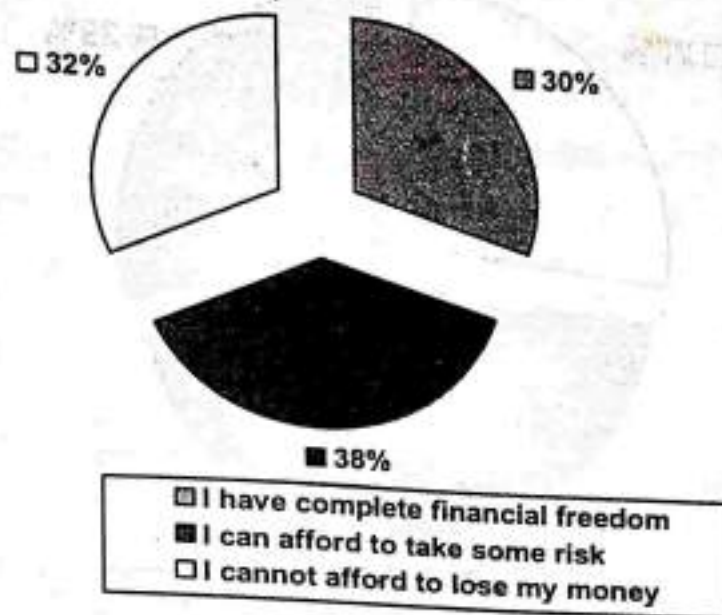


Illustration : The above table and pie chart is useful to know the financial position and risk appetite of the respondents. A total of 30% have complete financial freedom when it comes to investments, 32% cannot afford to lose any money and 38% can afford to take some risk. This means that 38% are moderate in their investment.

Table No. 8 Investment Habits

Sample size	More than 5 years	Between 2 to 5 years	Less than 2 years
100	29	44	27

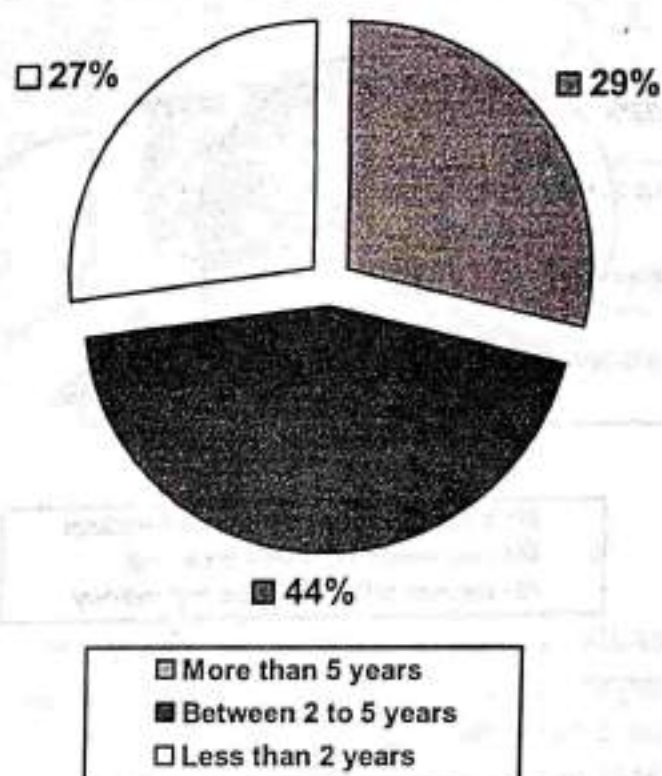


Illustration: From the above pie chart and the table we can evaluate investment habits of the respondents in their investments. 27% will withdraw their investment in less than 2 years, whereas 44% will withdraw their investment between 2 to 5 years and 29% would like to keep for more than 5 years.

Table No. 9 Holding Capacity

Sample size	Strongly disagree	Neutral	Agree
100	40	25	35

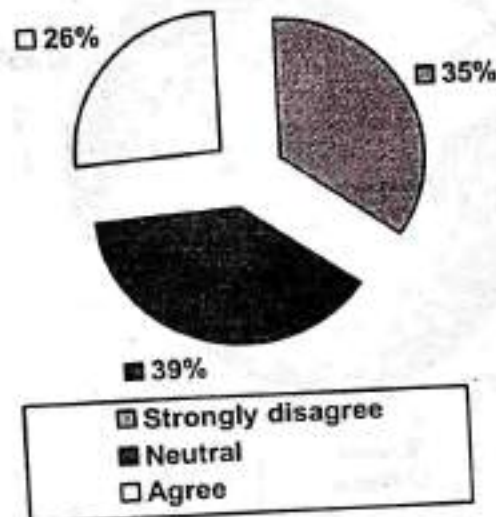


Illustration: From the above diagram we can evaluate the responses of the people about their investment habits to withdraw savings before stated investment perspective. A total of 35% say they will remove their money before they get their expected returns. Again 26% say they will stay with their investments and 39% are reasonable in their expectation.

Table No. 10 Advisor

Sample size	Broker	Bank	None
100	35	48	17

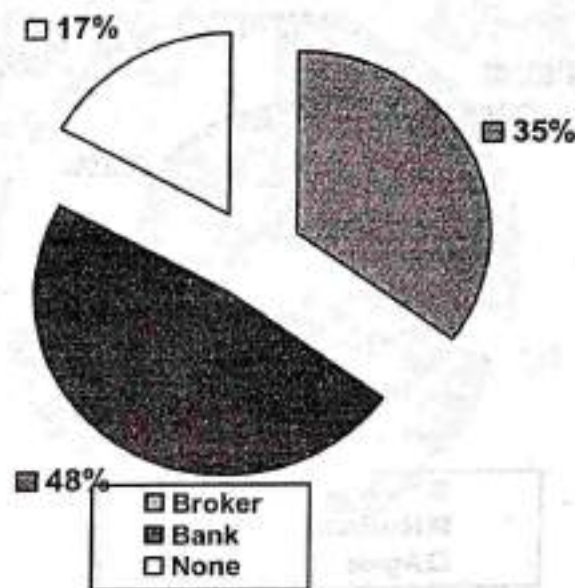


Illustration: Above table and pie chart shows is the most acceptable advisor for investors. The respondents select bank as their likely advisor than broker. Bank has got maximum votes, that is, 48% that is almost half the total number of respondents, 35% rely on brokers and the remaining may be getting advice from other sources like CFA, CA or associates.

Table No. 11 Can Afford to Loose Money

Sample size	20%	5%	0%
100	18	44	38

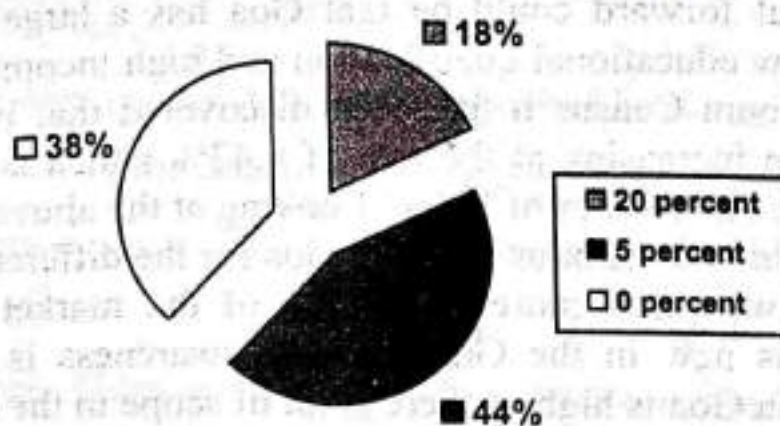


Illustration: From the above pie chart one can analyze the risk appetite of the respondents. A total of 44% are ready to lose 5% of their investment, 38% are ready to lose 0% of their investment and around 18% are ready to take some risk. Overall around 25% respondents are aggressive in their investment which is a good sign for the company.

Conclusion

The Market research study shows that overall 25% of the respondents are aggressive in their investment, around 35% are moderate and more than 40% are conservative. Awareness of the financial products among the respondents will increase since plenty of new players are coming in the Goan market.

It has recently been officially made public that the scheduled commercial banks in Goa have more than three million deposit accounts. And the amount in term deposit (fixed deposit) itself is more than Rs.9200 crores. In the financial year ending March 31, 2005, the amount in the form of current, savings and term deposits, was Rs.12,631.07 crores, according to the Economic Survey 2004-05 brought out by the Directorate of Planning, Statistics and Evaluation. The per capita bank deposit is Rs.89,508 and is more than the per capita income of the State. It has also been estimated that investment in mutual funds has risen by 6.62% in March 2005 than that compared to March 2004. An important characteristic of deposits in Goa is the significant contribution from Non-Resident Emigrants (NREs) which accounts for 30% of the deposits.

Another reason put forward could be that Goa has a large number of NRI population with low educational qualification and high incomes. According to Goa Population Count Census it has been discovered that in Goa individual earnings have been increasing at the rate of 6.43% which is the highest than compared to all the other states of India. Looking at the above information, the financial products have enormous scope in Goa for the different players.

Motilal Oswal need more awareness of the market to be a market leader. Since it is new in the Goan market awareness is important. The standard of living in Goa is high so there is lot of scope in the Goan market.

Recommendations

The need of the hour is to educate the investor about the different avenues related to capital markets. Educate investors about their rights and responsibilities and impart awareness about common pitfalls and mistakes that lead to investor losses. The greatest need today is to educate and give proper investment guidance and solutions to the public in the State on all financial products such as shares, commodities, insurance, mutual funds and bonds and depository.

The above suggestion could be implemented by using various methods like giving a presentation on the financial products and providing the public with better solutions for their investments. Secondly, it can be done by organizing seminars to give an opportunity to the investors to discuss various investment options. Thirdly, one could publish small booklets which give brief information on various new investment avenues like ELLS (Equity Link Saving Scheme), FMP (Fixed Maturity Plans). The information should contain risk for avenue, returns, difference with other avenues, etc.

The branch should work on business development through institutional sale by presentations to corporate, star hotels of their different products as well as services. Doing this, awareness will be created within the business fraternity which will lead to business development.

References

Cooper, Donald, R. and Pamela Schindler (9th Edition). *Business research methods*. The McGraw Hill Companies.

Kotler Philip (Millennium Edition). *Marketing management*. Prentice Hall of India.

www.motilaloswal.com

OUR ESTABLISHMENT

Rosary College of Commerce and Arts was established by the Archdiocese of Goa and Daman in June 1990 due to the initiative of late Rev. Can. Jose Roberto Vaz, the then Parish Priest of Rosary Church. This College is managed by the Diocesan Society of Education. The Archdiocese of Goa and Daman has set up two Diocesan Colleges, viz. St. Xavier's College, Mapusa. (established in 1963) catering mostly to the student population of North Goa district, and Rosary College, Navelim, catering mostly to the student population of South Goa District. Both these Colleges are minority institutions under article 30 (I) of the Indian Constitution. The college building has been put up by the Fabrica of Nossa Senhora Do Rosario, Navelim, almost entirely with the proceeds of the sale of properties belonging to the Fabrica, Confraria de Nossa Senhora do Rosario and Confraria do Santissimo Sacramento.

The Government of Goa granted permission to open a Degree College with First Year Arts, Commerce, and Science streams on 22-12-1989 through its letter No. DL-/Col cell/172/979. The Goa University granted affiliation for Commerce faculty in June 1990 and affiliation for Arts Faculty in May 1991. In the academic year 1998-99, permission was granted for self-financed BCA (Com.) three years degree course by Goa University & Govt. of Goa. Permanent affiliation was also granted by Goa University to our Commerce Faculty in 1998 and to our Arts Faculty in 1999. Affiliation for the three years B.B.A. degree course was granted from 2000-2001.

The Rosary College is also granted recognition under 2(f) and 12-B of the University Grants Commission Act, 1956. The College has been accredited by NAAC with Grade B+ in 2005.
