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From the Desk of Chief Editor ...✍

We are placing Volume 9 Issue 1 of the RVIM Journal of Management Research in the hands of academic experts and subscribers. The current issue of Journal contains original research papers on work life balance, estimation of investment requirements in Indian highways, eco-tourism, relationship with gold exchange traded funds and equity ETFs, evaluation of select investment styles, service quality of bank and perceived risk in car purchase. A two fold blind referral process is involved in selecting the papers for this journal. The research papers in the journal will enhance the knowledge and thoughts of the readers. This Journal would serve as a channel for knowledge sharing among academicians and practicing managers about contemporary management issues and problems. The journal comprises papers on diversified issues, industry and intents to fulfill the information requirement of the researchers across the countries. We hope that the readers will thoroughly benefit from the papers being compiled in journal and give their valuable feedback to enhance the quality in our publications.

Dr. T V Raju
Chief Editor

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DEMOGRAPHIC DIFFERENCES IN PERCEPTION TOWARDS WORK LIFE BALANCE

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Abstract :

Work-life balance is a concept including proper prioritizing between “work” (career and ambition) and “lifestyle” (health, pleasure, leisure, family and spiritual development/ meditation). This is related to the idea of lifestyle choice. A balanced life is one where we spread our energy and effort - emotional, intellectual, imaginative, spiritual and physical – between key areas of importance. The study is carried out to find the various demographic differences such as age, gender, occupation, experience, etc. Have an effect on the work life balance of the employees in the organization. This study used work life balance factors namely Employee Expectation, Career satisfaction, Work life policies, working environment, Personal environment. It can be concluded that career satisfaction have more influence on employees but Work life policies have less influence on employees. This research recommends that management may encourage the family- friend policies, leave policies, and family support policies, employee expectations and personnel environmental will improved as well so that the count of work life balance can be reduced.

Keywords: Work life balance, demographic, employee.

1. Introduction:

Work-life balance is meaningful achievement and enjoyment in everyday life. Also, we believe that to achieve better work-life balance, each individual needs to work smarter- to get more done in less time. To understand work-life balance, it is important to be aware of the various demands upon us and our personal resources- our time and our energy- that we can deploy to address them. With this awareness, we are able to review and value

the choices we have in terms of how we allocate our precious resources. Such conscious decision-making provides a sense of control over our working arrangements in order to better accommodate other aspects of our lives, while still benefiting the organizations. Work-life balance is a concept including proper prioritizing between “work” (career and ambition) and “lifestyle” (health, pleasure, leisure, family and spiritual development/ meditation). This is related to the idea of lifestyle

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choice. Work-life balance for any one person is having the 'right' combination of participation in paid work and other aspects of their lives.

It is about effectively managing the juggling act between paid work and the other activities that are important to people. It's not about saying that work is wrong or bad, but that work shouldn't completely crowd out the other things that matter to people like time with family, participation in community activities, volunteer work, personal development, leisure and recreation. In recent years, work-life balance has become a keyword for balancing working time and free time. The 'right' balance is a very personal thing and will change for each person at different times of his or her lives. For some people the issue is being able to get into work or find more work rather than having too much work. There is no 'one size fits all' solution. A balanced life is one where we spread our energy and effort - emotional, intellectual, imaginative, spiritual and physical - between key areas of importance. The neglect of one or more areas, or anchor points, may threaten the vitality of the whole.

In recent years, work-life balance has become a keyword for balancing working time and free time. Work-life balance practices are deliberate organizational changes in programs or organizational culture that is designed to reduce work-life conflict and enable employees to be more effective at work and in other roles. The transition from viewing work-life balance practices solely as a means of accommodating individual employees with care giving responsibilities to recognizing their contribution to organizational performance and employee engagement is an important paradigm shift that is still very much 'in the process.'

The study is carried out to find the various demographic differences such as age, gender, occupation, experience, etc. Have an effect on the work life balance of the employees in the Aditya Better Containers Ltd., Puducherry. The study has used the primary data by collecting the questionnaires from the employees working in the organization. The questionnaires are purely based on the objectives of the study carried out in Aditya Better Containers Ltd., Puducherry.

2. Review of Literature

Jeffrey H. Greenhaus, et al (2003) suggested that an equally high investment of time and involvement in work and family would reduce work-family conflict and stress thereby enhancing an individual's quality of life. Pleck's (1977) research suggests that family-to-work spill-over is stronger for women and the work-to-family spill-over is stronger for men. Illinger (2001: 1) Drew, Humphreys and Murphy point out "that personal fulfillment is important inside work and that satisfaction outside work may enhance employees' contributions to work". Kenexa (2007) shows that those employees who were more favorable toward their organization's efforts to support work-life balance also indicated a much lower intent to leave the organization, greater pride in their organization, a willingness to recommend it as a place to work and higher overall job satisfaction.

Clarke, 2000, et al (2005). Work-life balance is defined as an employee's perception that multiple domains of personal time, family care, and work are maintained and integrated with a minimum of role conflict. Kirchmeyer (2000) views living a balanced life as "achieving satisfying experiences in all life domains, and to

do so requires personal resources such as energy, time, and commitment to be well distributed across domains". The purpose of striving very hard both at home and work at the cost of her individual health and well-being for every married working woman is to have a good quality of life. Konrad and Mangel, et al (2000) revealed that work-life balance in the workplace has become a more important issue as it tends to exhibit positive results such as low turnover, work engagement, organizational citizenship behavior, in-role performance, increased firm productivity, job satisfaction, and organizational commitment.

Yasbek (2004) views the employee is expected to be engaged on the job almost at all times. So the traditional distinctions between work-life and family-life have disappeared. Even during the selection of employees in an organization, emphasis is placed on the attitudes the person exhibits, more particularly, whether the employee is flexible enough to be available for work at any time. Hyman et al (2003) observed that organizational pressures, combined with lack of work centrality, result in work intruding into non-work areas of employees' lives. Such intrusions often manifest themselves differently depending on the type of work, extent of autonomy and organizational support. Fisher and Layte et al (2003) consider three distinct sets of measures of work-life balance, viz. The proportion of free time, the overlap of work and other dimensions of life, and the time spent with other people.

3. Objectives of the Study

1. To find the influence of personal environment towards work life balance.
2. To understand the influence of working environment towards work life balance.

3. To identify employee perceptions and satisfaction of work life balance
4. To find the demographic difference of work life balance of employees.
5. To analyze the employee expectations of managing regular work life balance.

4. Needs for the Study

- This research helps to improve the level of Retention and attractions of the employees.
- The study is to create a high level of motivation and to improving work performance of employees.
- It is also helping to reduce stress levels in the workplace.
- The research is to build the employees for achieving professional and personal goal.

5. Scope of the Study

The study was carried out to know about the employee's work life balance based on demographic factors. The study tends to reduce sickness and absenteeism. It enhances working relationship between colleagues. This in turn will increase the level of production and employee satisfaction. To conduct this research will help of certain tools were taken such as journals, net search, filling up of questionnaires and direct interactions with the higher designations of the organization.

6. Statement of Problem

A quality work environment factors are critical issues when examining the work life of employees. Some of the key issues that will be examined in this study are employee workforce shortage, working conditions, professional

issues, stressful work life, demanding, patient needs, working knowledge development, teamwork and performance, employee leadership and managerial issues, organizational climate and culture and gender based issues. This study is carried out based upon problematic question, how far has family –friend policy and work- life balance give an impact on employee performance.

7. Research Methodology

Research is a logical and systematic search for new and useful information on a particular topic. It is an investigation of ending solutions to scientific and social problems through objective and systematic analysis. The study was conducted in Aditya Better Containers Ltd., which is located in Union Territory of Pondicherry. The population, which consisting of 140 employees of organization. The

researcher makes it consists 60 employees as a sample size to analyze the level of satisfaction towards work life balance in their job. The research paper comes under descriptive research. Simple Random Sampling was used for the purpose of the survey, and a research sample was taken to measure employee satisfaction.

The questionnaire for the research was divided into two parts: the first part deals with the demographic data of the respondents and the second part of the questionnaire includes the variables pertaining to various dimensions of satisfaction of work life in the form of dependent statements. These statements are measured through the five point Likert scales. Where the researcher is using different statistical tools to find the level of satisfaction towards work life balance such as Anova, Frequency distribution, Chi Square, Factor Analysis and Cluster.

8. Data analysis and discussion

8.1 Demographic analysis

Table 8.1: Socio Demographic Profile of the Respondents

Socio Demographic Profile	Categories	No. of Respondents	Percentage
Age	Below30	21	35
	31-40	22	36.7
	41-50	8	13.3
	Above 50	9	15
Gender	Male	46	76.7
	Female	14	23.3
Marital Status	Married	38	63.3
	Unmarried	19	31.7
Educational Qualification	Schooling	10	16.7
	ITDiploma	10	16.7
	UG	23	38.3
	PG	13	21.7
	Other	4	6.7

Monthly Income	Below 10000	14	23.3
	10001 – 20000	24	40
	20001 – 30000	13	21.7
	30001 – 40000	6	10
	Above 40000	3	5
Job Level	Lower Level	18	30
	Middle level	29	48.3
	Upper level	12	20
Total Experience	Below 3 years	17	28.3
	3-6 years	24	40
	6-9 years	8	13.3
	Above 9 years	10	16.7
No .Of Dependents	Below 2	15	25
	3 or 4	20	33.3
	5 or Above 5	15	25

Among 60 respondents, 35% of respondents are under 30 of age, 36% of the respondents are 31- 40 of ages, 13 % of the respondents are 41s-50 of age and 15% of respondents are above 50. Hence the majority of respondent's 36% of 31-40 ages. Among the 60respondents 76% are male and 23% are female. The majority of the respondents are male. From the respondents 63% are married and 31% are unmarried. The majority of respondents i.e. 63% of them are married.Nearly 16% of respondents have completed only their school level, 16% of respondents have done their diploma, 38% of respondents are graduates, 21% of the respondents are post graduates and other qualifications are 6%. Hence the majority of the respondents, i.e. 38% are graduates.Among the 60 respondents 23% of respondents are below 10000 monthly incomes, 40% of respondents income is 10000-20000, 21% of respondents income is 20001-30000, 10% of

the respondents income is 30001-40000 and others income is above 40000.

Among the 60 respondents 30% of respondents are lower level, 48% of respondents are middle level, 20% of respondents upper level, majority of the respondents 48% middle level.Among the 60 respondents 28% of respondents are below 3 years, 40% of respondents are 3-6 years experience, 13% of respondents are 6-9 years experience and 16% of the respondents are above 9 years experience majority of the respondents are 3-6 years of experience. Among the 60 respondents 25% of respondents are dependents are from below 2 dependents, 25 % of the respondents are above 5 dependents and Majority of the respondents 33% are 2 or 3 dependents.

8.2 Factor analysis of work life balance

Work life balance is processed for employees give importance to their workplace and life. The five factors are used in this analysis such as

employee expectation, career satisfaction, work life policies, work environment; personnel environment. The statements are divided based on the factor oriented.

The Kaiser-Meyer-Olkin measures of sampling adequacy and Bartlett's test of sphericity is used to test the sample adequacy for applying factor analysis. Kaiser recommends values greater

than 0.5 as acceptable. Since the value is 0.591 it is a good value and hence we are confident that factor analysis could be appropriate for these data. The Bartlett's test of sphericity is significant, hence R-matrix is not an identity matrix. It reveals that there is some relationship between variables and therefore the factor analysis is appropriate for these data.

Table 8.2: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.591
Bartlett's Test of Sphericity	Approx. Chi-Square	808.145
	df	435
	Sig.	.000

From the above table the KMO value is 0.591 which indicates that the factor analysis is useful with the data. The chi-square value is 808.14 and the significant value is 0.000 which is significant at more than 99% level of confidence.

Table 8.3: Total Variance Explained for Factorization

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.179	20.546	20.596	6.176	20.596	20.596	4.907	16.358	16.358
2	2.808	9.360	29.956	2.808	9.360	29.956	3.125	10.416	26.775
3	2.291	7.638	37.593	2.291	7.638	37.593	2.586	8.619	35.392
4	1.933	6.443	44.036	1.933	6.443	44.036	2.433	8.110	43.502
5	1.907	6.357	50.393	1.907	6.357	50.393	2.067	6.891	50.393
6	1.650	5.500	55.893						
7	1.533	5.111	61.005						
8	1.347	4.489	65.493						
9	1.128	3.760	69.253						

10	1.090	3.632	72.885						
11	.986	3.286	76.171						
12	.909	3.032	79.203						
13	.819	2.730	81.933						
14	.675	2.249	84.182						
15	.615	2.051	86.233						
16	.613	2.042	88.279						
17	.506	1.686	89.962						
18	.490	1.633	91.595						
19	.406	1.352	92.947						
20	.329	1.095	94.042						
21	.292	.973	95.015						
22	.279	.932	95.946						
24	.225	.752	96.698						
25	.216	.719	97.417						
26	.187	.622	98.039						
27	.154	.515	99.010						
28	.137	.456	99.408						
29	.119	.392	99.784						
30	.113	.376	100.00						

Table show the list of Eigen values associated with each linear component (factor) before extraction, after extraction and after rotation. Before extraction it is found that there are 30 linear components within data set. The components having Eigen values are greater than 1.5 are selected and hence the first five factors (components from 1 to 5) which receive the value greater than 1.5 receive more amount of variance i.e. 50.393%

After the relative importance of the five factors are equalized. Before rotation, component 1 accounted for more than the other four components 2 to 5 (20.546% compared to 9.360%, 7.638%, 6.443%) however after extraction it accounts for only 20.596% of variance.

Table 8.4: Rotated Component Matrix

Statement	Component				
	1	2	3	4	5
My subordinates assist me for successfully completing my work.	.787				
I can openly discuss issues relating to work life balance with my superior.	.756				
As work drains your energy and time, feel sick at home.	.728				
I want me to get recognized when I take initiative in my job.	.708				
My superior gives more importance towards the well-being of the employees.	.648				
I am satisfied with the fair treatment and respect I get among the employees of the organization.	.642				
The organization makes the employees very clear about the expectations to be fulfilled.	.591				
I get stressed often due to my income level.	.582				
WLB policies implemented in the organization make my job easier.	.522				
I have good career prospects in the company.		.824			
My organisation provide career break/sabbaticals.		.621			
I feel I have good job satisfaction.		.618			
Family – Friendly policies.		.545			
I feel easy to work in general shift.		.517			
I am satisfied with Health programs conducted by organization.			.729		
I am satisfied with the leave policy of the company.			.615		
The organization gives opportunity to return to the same job after maternity or paternity leave.			.533		
I can spend the time I want on my own self development.			.514		
People who work flexibly get more work done.			.500		
I have sufficient time to take care of myself.			.463		
I am happy with my working hours of the organization.			.431		

Employees without children should have the same flexibility in working arrangements as parents.			.391		
I feel happy with my holidays/ paid time-off given by organization.				.816	
I can share my job with my colleagues.				.629	
I can give my attention for urgent family or personal issues immediately.				.506	
I want to have nice sleep of minimum 8 hours at night.				.487	
Working arrangements improves workplace morale.					.615
I feel happy with family support programs.					-.541
I wish to live as ideal life as planned.					.461
I have satisfaction with counseling services.					-.270

From the rotated component matrix it is clear that the first factor is having 9 statements, second factor is having 5 statements and third factor is having 8 statements. The reduced two factors are working environment and personnel environment.

Table 8.5: Factor Description

FACTOR	DESCRIPTION OF THE FACTOR STATEMENT	VALUE
Employee Expectation	I get stressed often due to my income level.	.582
	As work drains your energy and time, feel sick at home.	.728
	I am satisfied with the fair treatment and respect I get among the employees of the organization.	.642
	I want me to get recognized when I take initiative in my job.	..708
	My subordinates assist me for successfully completing my work.	.784
	I can openly discuss issues relating to work life balance with my superior.	.756
	My superior gives more importance towards the well-being of the employees.	.648
	The organization makes the employees very clear about the expectations to be fulfilled.	.591
	WLB policies implemented in the organization make my job easier.	.522

Career Satisfaction	My organization provide career break/sabbaticals.	.545
	I have good career prospects in the company.	.517
	I feel I have good job satisfaction.	.618
	I feel easy to work in general shift.	.517
	The organization provides family – friendly policies that help me to fulfill family commitments.	.545
Work life Policies	I am happy with my working hours of the organization.	.431
	I am satisfied with the leave policy of the company.	.615
	I am satisfied with Health programs conducted by organization.	.729
	The organization gives opportunity to return to the same job after maternity or paternity leave.	.533
	People who work flexibly get more work done.	.500
	Employees without children should have the same flexibility in working arrangements as parents.	.391
	I have sufficient time to take care of myself.	.463
	I can spend the time I want on my own self development.	.514
Working environment	I can share my job with my colleagues.	.629
	I feel happy with my holidays/ paid time-off given by organization.	.816
	I can give my attention for urgent family or personal issues immediately.	.506
	I want to have nice sleep of minimum 8 hours at night.	.487
Personal environment	I wish to live as ideal life as planned.	.461
	Working arrangements improves workplace morale.	.615
	I feel happy with family support programs.	.541
	I have satisfaction with counseling services.	.270

The highest mean score of the variable is 3.39 and the lowest mean score is 2.94 for the variable. When we ranking to the factors career satisfaction 3.399 is the first rank. The employee gave more importance to the Organization. The Working environment 3.31 is the second rank. The Personal environment 3.2167 is got third rank because the employees

are encouraged in better manner. The Work life policies related got the fourth rank and the Employee Expectation has got last rank.

8.3 Analisis of Cluster

Table 8.6: Segmentation of work life balance in final cluster centers

FACTORS	1	2	3
Employee Expectation	2.57	3.64	3.11
Career Satisfaction	2.83	3.74	3.95
Work Life Policies	2.91	2.85	3.16
Working Environment	2.88	4.55	3.32
Personal Environment	2.96	3.70	3.33
Average	2.83	3.696	3.374
No. of Cases	28	10	22

From the above table, K- means cluster analysis is used to categories absenteeism into three clusters, findings of this analysis are taken from the cluster analysis, the results are 2.83 of the work life variables belong to the low work life with the cluster I which have 28 respondents, 3.696 of the work life variables belong to the moderate absenteeism with the cluster II which have 10 respondents, 3.374 of the work life balance variables belong to the medium with the cluster III which have 22 respondents.

8.4 Data analysis with chi square

The chi square table indicates that there exists significant difference among all the three clusters. The significant value for all the factor is less than 0.05. This means that all factors have significant contribution on dividing employee into 3 segment based of the work life balance.

8.4.1 Chi Square analysis towards work life and demographic variables of the respondents

Hypothesis

H_0 – There is no significant between work life and demographic variables of the respondents

H_1 – There is significant between work life and demographic variables of the respondents

Table 8.7: Association between work life and demographic variables

Demographic variables	Pearson's chi square value	Significance value	Result
Gender	17.067b	.000	Associated
Marital status	90.667c	.000	Associated
Qualification	16.167c	.003	Associated
Monthly Income	22.167c	.000	Associated
Job level	27.333a	.000	Associated
Total experience	25.833c	.000	Associated
Current organization	18.667c	.001	Associated
Dependents	16.500	0.02	Associated

It is inferred that demographic variables like gender, marital status, monthly income, qualification, job level, experience are associated with these cluster.

8.5 Analysis of Anova

8.5.1 Analysis of Anova between work life balance and age factors

Hypothesis

H_1 – There is significant between work life balance and age factors of respondents

H_0 – There is no significant between work life balance and age factors of respondents

Table 8.8: Relationship between work life balance and age factors of respondents

ANOVA							
		Sum of Squares	df	Mean Square	F	Sig.	RESULT
Employee Expectation	Between Groups	.888	3	.296	.545	.654	Not sig
	Within Groups	30.432	56	.543			
	Total	31.320	59				
Career satisfaction	Between Groups	1.264	3	.421	.622	.604	Not sig
	Within Groups	37.933	56	.677			
	Total	39.197	59				
Work life policies	Between Groups	2.349	3	.783	3.633	.018	Sig
	Within Groups	12.070	56	.216			
	Total	14.420	59				

Working environment	Between Groups	2.272	3	.757	1.327	.275	Not sig
	Within Groups	31.962	56	.571			
	Total	34.233	59				
Personal environment	Between Groups	.849	3	.283	.888	.453	Not sig
	Within Groups	17.835	56	.318			
	Total	18.683	59				

The above table infers that, the age of the respondents and the work life balance factor such as employee expectations, career

satisfaction, work environmental and personnel environmental, but work life policy tends to significant.

8.5.2 Analysis Of Anova Between Work Life Balance Factor And Gender

Hypothesis

H_0 – There is no significant between work life balance factor and Gender of Respondents

H_1 - There is significant between work life balance factor and Gender of Respondents

Table 8.9: Relationship between work life balance factor and gender of respondents

ANOVA							
		Sum of Squares	df	Mean Square	F	Sig.	RESULT
Employee Expectation	Between Groups	.049	1	.049	.091	.764	Not sig
	Within Groups	31.271	58	.539			
	Total	31.320	59				
Career Satisfaction	Between Groups	1.137	1	1.137	1.733	.193	Not sig
	Within Groups	38.060	58	.656			
	Total	39.197	59				
Work Life policies	Between Groups	.004	1	.004	.017	.897	Not sig
	Within Groups	14.415	58	.249			
	Total	14.420	59				

Working Environment	Between Groups	.003	1	.003	.005	.942	Not sig
	Within Groups	34.230	58	.590			
	Total	34.233	59				
Personal Environment	Between Groups	.087	1	.087	.272	.604	Not sig
	Within Groups	18.596	58	.321			
	Total	18.683	59				

The above table infers that, the gender and the work life balance factor such as work related factor, employee expectations, career

satisfaction, work environmental and personnel environmental are not significant.

8.5.3 Analysis of anova between work life balance factor and marital status

Hypothesis

H_0 – There is no significant between work life balance factor and Marital Status of Respondents

H_1 – There is significant between work life balance factor and Marital Status of Respondents.

Table 8.10: Relationship between Work Life Balance Factor and Marital Status of Respondents

ANOVA							
		Sum of Squares	df	Mean Square	F	Sig.	RESULT
Employee Expectation	Between Groups	0.523	4	0.131	0.234	0.918	Not sig
	Within Groups	30.797	55	0.56			
	Total	31.32	59				
Career Satisfaction	Between Groups	1.543	4	0.386	0.563	0.69	Not sig
	Within Groups	37.655	55	0.685			
	Total	39.197	59				
Work life Policies	Between Groups	0.781	4	0.195	0.788	0.538	Not sig
	Within Groups	13.638	55	0.248			
	Total	14.42	59				

Working Environment	Between Groups	6.14	4	1.535	3.005	0.026	Sig
	Within Groups	28.094	55	0.511			
	Total	34.233	59				
Personal Environment	Between Groups	0.78	4	0.195	0.599	0.665	Not sig
	Within Groups	17.903	55	0.326			
	Total	18.683	59				

The above table infers that, the gender and the work life balance factor such as work related factor, employee expectations, career satisfaction, work life policy and personnel environmental are not significant. But working environmental is tends to significant.

9. Finding of the study

In this research it is found that the majority of the respondents from Aditya better container private limited are male and there are more married employees when compared to married. When we compare age and department majority of them have the age below 30 are work as a lower level because they don't have more subject knowledge. When we compare qualification and monthly income the findings will be majority of them completed under graduate their earnings are 10k to 20k then who completed post graduate their earnings are 20k to 30k based upon experience also.

Since, there are 30 different statements were asked to workers in this study, it found little complicate to analyze each data. To make this study little simple factor analysis is made. Using the factor analysis method all the statements are divided into five major factors. They are Employee Expectation, Career satisfaction, Work life policies, working environment,

Personal environment. These factors are given rank on the basis of their mean value. From the result it is found that career satisfaction is in the first rank. The working environmental factor is the second rank, the Personal environment is in the third rank, the factor Employee Expectation is in the fourth rank, and the factor Work life policies is in the fifth rank. These results show that the factor career satisfaction is better in the organization.

Using the factors of work life balance the cluster analysis is done. The cluster divides each factor into three categories. From the first cluster, it is found that this analysis are taken from the cluster analysis, the results are 2.83 of the work life variables belong to the low work life with the cluster I which have 28 respondents, 33.696 of the work life variables belong to the moderate absenteeism with the cluster II which have 10 respondents, 3.374 of the work life balance variables belong to the medium with the cluster III which have 22 respondents.

Using chi-square, the association between absenteeism factor and demographic factor is found. In these five factors are associated, they are Employee Expectation, Career satisfaction, Work life policies, Working environment, Personal environment.. These factors have significant value less than

0.05. Using ANOVA, the significant relationship between work life balance factor and all demographic factors is found. In that, work life balance factor demographic of age and marital status of the respondents are only significant others are all not significant.

10. Suggestions & Recommendation

From the study the researcher suggests that the management should provide good leave policy. The management should give family support policy to the employees. From the study that is personnel environmental factors so it should be developed. The researcher suggests that the management should improve the employee expectations for employees to their easily job. It is founded that all demographic factors of the respondents the age and marital status of the respondents are only significant, so the management should balance the work life in other demographics of the employees.

11. Limitations of the Study

- The data have been collected from the present permanent employee's only. So it may vary in the future.
- The duration of the study is limited. So it may not be able to cover the entire populations.
- Most of the respondents were honest enough to answer certain questions
- The study is applicable only to Aditya Better Containers Puducherry.

12. Conclusion

This paper investigates work life balance at Aditya Better Container Private Limited. This study used work life balance factors namely

Employee Expectation, Career satisfaction, Work life policies, working environment, Personal environment. It can be concluded that career satisfaction have more influence on employees but Work life policies have less influence on employees. This research recommends that management may encourage the family- friend policies, leave policies, and family support policies, employee expectations and personnel environmental will improved as well so that the count of work life balance can be reduced.

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A STUDY ON ESTIMATION OF INVESTMENT REQUIREMENTS IN INDIAN HIGHWAYS SECTOR AND THEIR DETERMINANTS

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Abstract :

Sources of investment or fund in the gigantic work that is taking place in Indian highways sector is a burning issue for quite some time. Apart from the modalities like PPP etc, what factors attract the investors in this regard is a relevant question both to the awarding authority as well as the awardees. At the same time, what may be the possible quantum of investment in highways sector at present as well as near future is a pertinent question. The study aims at determination of investment requirements in Indian highways sector at present and the most significant factor(s) which is the driving force for award of a contract in this sector.

Keywords: National Highways, NHDP, Investment in Roadways sector, Financial close.

Introduction

The total road length in India increased more than 11 times during the 60 years between 1951 and 2011. From 399 thousand kilometer as on 31st March 1951, the road length increased to 4.690 million kilometers as on 31st March 2011. Interestingly, the surfaced road length has increased both in absolute and relative terms. The length of surfaced roads which was 157 thousand kilometers (39.35 per cent of total road length) as on 31st March 1951, increased to 2.525 million kilometers (53.83 per cent of total road length) as on 31st March 2011.

Major infrastructure development requires a substantial inflow of capital investment. The policies of the Indian government encourage investments in the domestic infrastructure, both from local and foreign private players. FDI inflows in construction (infrastructure) activities

from April 2000 to June 2013 stood at USD 2200 million according to Department of Industrial Policy and Promotion (DIPP). In order to increase FDI inflows to further boost investments in the areas of infrastructure, the Indian Government has introduced significant policy reforms. Infrastructure industry includes roads, power, railways, urban infrastructure, irrigation and others. Road sector is the key contributor in the overall investments undertaken in the infrastructure industry.

In the Eleventh five year plan (2007-08 to 2011-12), the actual investments in the infrastructure sector reached Rs 19.5 trillion as against budgeted investment of Rs 20.6 trillion (95 per cent achievement level). The key drivers were: increased focus of central government on improving the infrastructure, against which several programmes were undertaken by the government.

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Literature review

NHAI was established under the National Highways Authority of India Act, 1988 but became operational in February 1995. The Authority is an autonomous body with executive responsibility for the development, maintenance and operation of those National Highways and associated facilities vested in it by the Ministry of Surface Transport. It is decided to take over the management of the entire National Highways on agency basis in a phased manner. The Authority has been entrusted with the execution of the highway projects under Asian Development Bank (ADB-III) as well as Original Engineering Consultants (OEC-III). In addition, NHAI will implement other externally aided projects like World Bank-III and maintenance thereof. NHAI will also be responsible for implementation of the policy of privatization in highway sector.

The National Highways Authority of India (NHAI) is mandated to implement the National Highways Development Project (NHDP). Most of the projects have been developed or are under development on Public Private Partnership (PPP) basis through Build Operate and Transfer (BOT)-Annuity and BOT-Toll mode. Typically, in an annuity project, the project IRR is expected to be 12-14% and equity IRR would be 14 -16%. For toll projects, where the concessionaire assumes the traffic risk, the project IRR is expected to be around 14-16% and equity IRR around 18-20%. NHDP is one of the largest road development programmes to be undertaken by a single authority in the world and involves widening, upgrading and rehabilitation of about 55 thousand km, entailing an estimated investment of INR 3000 billion (USD 60 billion).

The NHDP is being implemented under several phases:

Phase I mainly involve widening (to 4 lanes) and upgrading of 7,498 km of the national highway network and has four component packages:

1. Highway network linking the four metropolitan cities in India i.e. Delhi-Mumbai-Chennai-Kolkata, covering a length of 5,846 km, popularly known as the Golden Quadrilateral (GQ) project.
2. Highways along the North-South (NS) and East- West (EW) corridors, covering a length of 981 km
3. Port connectivity projects covering a length of 356 km; and
4. Other highway projects, covering a length of 315 km

Phase-II involves widening and improvement of the NS-EW corridors (not covered under Phase-I) covering a distance of 6,647 km, besides providing connectivity to major ports on the east and west coasts of India and some other projects. This includes 6,161 km of NS-EW corridors and 486 km of other highways. The total length of the NS-EW network under Phases I & II is about 7,200 km. Phase II was expected to be largely completed by December 2010.

Up gradation of 12,109 km (NHDP-III)

NHDP-III involves up gradation of 12,109 km (mainly 4-laning) of high density national highways, through the BOT mode at a cost of INR 806.26 billion. The project consists of stretches of National Highways carrying high volume of traffic, connecting state capitals with

the NHDP network under Phases I and II and providing connectivity to places of economic, commercial and tourist importance.

2-laning of 20,000 km with paved shoulders (NHDP-IV)

With a view to providing balanced and equitable distribution of the improved/widened highways network throughout the country, NHDP-IV envisages upgrading of 20,000 km of such highways into 2-lane highways, at a cost of INR 278 billion (USD 5.6 billion). This will ensure capacity, speed and safety match minimum benchmarks for these national highways. The government has already approved strengthening of 5,000 km to 2-lane paved shoulders on BOT (Toll/ Annuity) under NHDP-IV A at a cost of INR 69.50 million (USD 1.4 billion).

6-laning of 6,500 km (NHDP-V)

Under NHDP-V, 6-laning of the 4-lane highways comprising the GQ and certain other high density stretches, will be implemented on BOT basis at an estimated cost of INR 412.1 billion (USD 8.2 billion). These corridors have been 4-laned as part of the GQ in Phase-I of NHDP. Implementation of initial set of projects has already commenced and the entire package is expected to be completed by 2012. Of the 6,500 km proposed under NHDP-V, about 5,700 km would be taken up in the GQ and the balance 800 km would be selected on the basis of predefined eligibility criteria.

Development of 1,000 km of Expressways (NHDP-VI)

With the growing importance of urban centers of India, particularly those located within a few hundred kilometers of each other, expressways would be both viable and beneficial. The

Government has approved 1,000 km of expressways to be developed on a BOT basis, at an indicative cost of INR 166.80 billion (USD 3.3 billion).

Other Highway Projects of 700 km (NHDP-VII)

The development of ring roads, bypasses, grade separators and service roads are considered necessary for full utilization of highway capacity as well as for enhanced safety and efficiency. For this, development of such features at an indicative cost of INR 166.80 billion has been approved by the Government. Apart from the high density corridors, a substantial part of the National Highways network would also require development during the 11th Plan period. These sections are characterized by low density of traffic. The development of these categories of National Highways would be carried out primarily through budgetary resources.

Presently, the development and maintenance of National Highways is financed by following:

1. Government's general budgetary sources
2. Dedicated accruals under the Central Road Fund (by levy of cess on fuel)
3. Lending by international institutions like:
 - World Bank
 - ADB
 - JBIC
4. Private financing under PPP frameworks:
 - Build Operate and Transfer (Toll)/Design Build Finance Operate and Transfer (DBFOT)

Investment by private firm and return through levy and retention of user fee

- Build Operate and Transfer (Annuity) – BOT (Annuity) - Investment by private firm and

Return through semi-annual payments from NHAI as per bid.

- Special Purpose Vehicle – SPV (with equity participation by NHAI)
- Market Borrowings

Unlike other agreements for private infrastructure projects which neither define a time-frame for achieving financial close, nor specify the penal consequences for failure to do so, the Model Concession Agreement (MCA) stipulates a time limit of 180 days (extendable up to another 120 days on payment of a penalty), failing which the bid security shall be forfeited. By prevalent standards, this is a tight schedule, which is achievable only if all the parameters are well defined and the requisite preparatory work has been undertaken.

The MCA represents the comprehensive framework necessary for enabling financial close within the stipulated period. Adherence to such time schedules will ensure a significant reduction in costs besides timely provision of the much needed infrastructure. This approach would also address the issue of infrastructure projects not achieving financial close for long periods.

The NHAI has introduced an additional condition for bidding road projects. For a venture of project cost less than Rs 30 billion, developers would be restricted from bidding if financial closure on their other projects is pending in three or more NHAI BOT projects as on bidding date. For a project

cost equal to or more than Rs 30 billion, bidder will not be eligible if financial closure is pending in two projects. However, if a bidder convinces NHAI about surety of arrangement of funds for the project, it can bid for more projects.

In the Literature review part, we have tried to give an idea regarding estimation of Investment requirement in Roadways sector and the gap in this regard, if any. The then Prime Minister of India, Dr. Manmohan Singh has said that India needs to invest over USD 1 trillion in infrastructure by 2017, if the country wants to achieve 10% annual growth rate (Press Reports). In order to promote inclusive growth, systematic reforms are required for the institutions and processes. Pure private, PPP and pure Government may be three alternative ways of investment for funding in infrastructure sector. The literature review has tried to identify the gap in the area of quantum of investment that is required in highways sector. Once the quantum is determined, the significant determinant which attracts a pure private or PPP investor in this sector shall be identified.

Unlike other agreements for private infrastructure projects which neither define a time-frame for achieving financial close, nor specify the penal consequences for failure to do so, the MCA stipulates a time limit of 180 days (extendable up to another 120 days on payment of a penalty), failing which the bid security shall be forfeited. By prevalent standards, this is a tight schedule, which is achievable only if all the parameters are well defined and the requisite preparatory work has been undertaken.

The MCA represents the comprehensive framework necessary for enabling financial close within the stipulated period. Adherence

to such time schedules will usher in a significant reduction in costs besides timely provision of the much needed infrastructure.

Objectives of this thesis paper

- 1) To understand the dimension of 'Growth' in Roadways Sector
- 2) To estimate the amount of investment that would be required in the Highways sector and the share of private investment out of that
- 3) To determine the more significant factor in the growth of roadways sector, i.e, whether the amount of road constructed in a year or

the amount of construction awarded in a year is more significant determinant for the investment in Roadways sector

Theoretical Framework

The 'Growth' of roadways can be measured from two dimensions in this entire article:

- a) In terms of increase in length of Roadways/ Highways
- b) In terms of increase in money value for allocation of fund/investment

The glimpse of the current status can be understood with the help of following table:

Table 1: NHDP status (as on May 31,2013)

	Unit	Phase							Total
		I	II	III	IV	V	VI	VII	
Total length	Km	7616	7142	12109	14799	5500	1000	700	49666
Completed till date	km	7346	6146	5491	247	1540	-	21	20791
Completion rate as % of total	%	96.5	86.1	45.3	1.7	23.7	-	3	41.7
Completion from April 12 - April 13	km	193	135	1848	247	630	-	8	2814
Under implementation	km	250	624	4933	4028	2540	-	20	12395
UI as a % of total	%	3.3	8.7	40.7	27.02	39.1	-	2.9	24.9
Balance length for award (BFA)	km	20	372	1685	10524	2420	1000	659	16680
BFA as a % of total	%	0.3	5.2	13.9	71.1	37.2	100	94	33.4
Cost incurred so far	Rs billion	411	596	658	34	212	-	8	1918

Note: For the purpose of our analysis, the entire length of the North South & East West (NSEW) corridor has been taken under Phase II and the entire length of Port Connectivity and Others national highways along with the Golden Quadrilateral has been taken under Phase I.

Source: NHAI, CRISIL Research

We now try to critically understand the amount of investment that will be required for the completion of the seven phases of NHDP.

Phase I: Largely complete

Phase I was approved by Cabinet Committee on Economic Affairs (CCEA) in December 2000. The phase includes:

- The 5,846 km Golden Quadrilateral (GQ) which connects the four major metros, viz Delhi, Mumbai, Chennai and Kolkata.
- A total of 380 km connecting the major ports - Haldia, Paradeep, Vishakhapatnam, Chennai and Ennore, Tuticorin, Kochi, New Mangalore, Marmugao, Jawaharlal Nehru Port Trust (JNPT) and Kandla - from the east coast to the west coast and to the GQ.
- Other national highway stretches of 1,390 km.

GQ, which constitutes about 77 per cent of the total length of Phase I, was completed in November 2012. As on May 31, 2013, about 97 per cent of Phase I was complete and about 3 per cent was under implementation. An amount of Rs 411 billion was spent on this phase till May 31, 2013.

Most projects in Phase I have been awarded on a cash contract basis. Over the next five years (2012-13 to 2016-17). Rs 16 billion to be invested for the completion of Phase I.

Phase II: Nearing completion

The CCEA approved Phase II, comprising the North South East West (NSEW) Corridor, in December 2003. This phase involves widening of North-South and East-West corridors. The total length of the NSEW Corridor is 7,142 km. As on May 31, 2013, about 86 per cent of the NSEW Corridor was complete. This entailed a cost of Rs 596 billion. During the year 2012-13, projects with a total length of 54 km were awarded under this phase. Further, about 9 per cent of the total length of the corridor was under implementation and about 5 per cent of the total length was yet to be awarded as of May 31, 2013.

The balance length of projects, out of the total length of 7,300 km in Phase II, to make an investment of Rs 49 billion over the next five years.

Phase III: Steady awarding

Phase III involves converting two-lane roads into four lanes. The criteria for identification of stretches under this phase are:

- High-density traffic corridors not included in Phases I and II
- Providing connectivity to state capitals with the NHDP (phases I and II)
- Connecting centres of tourism and places of economic importance

In 2011-12, projects with a total length of 1,871 km were awarded. However, award of project fell to 153 km in 2012-13. Out of the total length of 12,109 km under this phase, about 45 per cent was complete as on May 31, 2013. This involved a cost of Rs 658 billion. The government plans to implement most projects under this phase through the BOT-toll model. The less viable projects will be awarded under the BOT-annuity model. The least viable stretches will be awarded on cash contracts. The implementation of this phase is expected to require an investment of Rs 605 billion over the next five years.

Phase IV: Construction started

In this phase, national highways are planned to be improved to two-lane standards with paved shoulders. NHAI has identified a total of 14,799 km of road stretches under this phase and implementation has already started with about 2 per cent of the length executed for a total spend of Rs 34 billion till May 31, 2013.

Further, as on this date, about 27 per cent of the identified road length was under implementation and about 71 per cent was yet to be awarded.

In 2011-12, around 2,069 km of projects were awarded under this phase. However, during 2012-13, only about 644 km of projects were awarded. In 2013-14, projects with a total length of 217 km were awarded till June 30, 2013.

Under this phase, many of the projects are expected to be awarded on EPC basis, since the traffic volumes for these projects are lower, and thus, they are less attractive than Phase III and V projects. Therefore, if these projects are bid out on the BOT model, developer interest would be lower. The implementation of this phase is expected to require an investment of Rs 682 billion as per estimates for the next five years.

Phase V: Steady awarding

This phase involves six-laning of 6,500 km of selected stretches of existing four-lane national highways on design-build-finance-operate (DBFO) basis. This includes around 5,700 km of the GQ and other selected stretches at a total cost of Rs 412 billion (2006 prices).

As on May 31, 2013, about 24 per cent of Phase V was completed at a cost of Rs 212 billion. Further, as on this date, around 39 per

cent of the total length under this phase was under implementation and around 37 per cent was left to be awarded.

Projects with a total length of 265 km were awarded in 2012-13. This was much lower than the 1,689 km length project awarding in 2011-12. In 2013-14, projects with a total length of 123 km were awarded till June 30, 2013. Over the next five years, implementation of this phase is estimated to require a total investment of Rs 448 billion.

Phase VI: No action on the ground

This phase includes the development of around 1,000 km of access-controlled four/six-lane divided carriageway expressways. Although this phase has been approved by the government, award has not been given.

Phase VII: Initial stages of implementation

This phase proposes construction of ring roads, flyovers and by-passes on selected stretches of the national highways at an estimated cost of Rs 167 billion. The government approved this phase in December 2007. While 700 km of stretches have been identified, about 3 per cent of the project length was implemented with an expenditure of Rs 8 billion as on May 31, 2013. As on this date, another 3 per cent of the project was under implementation and about 94 per cent was yet to be awarded.

Table 2: Investment Review of National Highways

REVIEW OF NH	2008-09	2009-10	2010-11	2011-12	2012-13
YR WISE INV (RS BILLION)	162	176	205	239	295
YR WISE AWARD OF LENGTH (KM)	1872	3214	5143	7283	1933
TOTAL LENGTH CONSTRUCTED/ UPGRADED (KM)	2458	2385	2620	2992	3350

Source: NHAI-FINAL.pdf, CRISIL Research

The investments in roads in the XI five year plan were Rs 3.6 trillion (115 per cent of the budget estimates) as against the estimated investment of Rs 3.1 trillion. Roads investment accounted for about 19 per cent of the overall infrastructure investments during the same period. Investments in roads is expected to increase to Rs 9.2 trillion in XII five year plan as against Rs 3.1 trillion (actual) in XI five year plan (increase of 2.9 times).

Between 2013-14 and 2017-18, it is expected that an average of 11.5 km per day of roads to be constructed / upgraded at an estimated cost of Rs 1,945 billion. National highway investments are expected to grow 2 times over the next five years from Rs 274 billion in 2012-13 to Rs 535 billion in 2017-18.

Table 3: Estimated Amt of Investment, Length Awarded and Constructed (2013-18)

	2013-14P	2014-15P	2015-16P	2016-17P	2017-18P
Year-wise estimated investment (Rs billion)	274	294	371	473	535
Year-wise break-up of total length awarded	2623	3434	4450	4776	5356
Total length constructed / upgraded	3206	3545	4215	4852	5000

Source: CRISIL Research (P stands for Projected)

In 2013-14, out of expected awarding of 2,623 km, nearly 50 per cent will be part of NHDP Phase IV, which mostly involves low traffic density stretches. Further, most of the projects will be awarded on EPC basis. Over the next five years, over 20,640 km of projects are expected to be awarded in national highways, amounting to an average of 11 km per day (including MORTH and NHAI).

Further, of the total length of 7,283 km awarded in 2011-12, projects with an aggregate length of 3,982 km are currently slowed down. Of the total project length stalled, about 56 per cent is primarily held up due to land acquisition or environmental clearance issues, while the rest are stuck due to the inability of companies to achieve financial closure. Hence, project execution declined by around 4 per cent to 3,206 km during 2013-14.

There is increasing reliance on the private sector for developing and maintaining infrastructure. The private sector, however, needs funds to develop infrastructure projects that are capital-intensive and have a high gestation period. Typically, private investments in infrastructure

projects are mainly in the form of debt raised by developers. As per Planning Commission, total investment in roadways sector during 12th 5-year plan (2012-17) will be INR 4900 billion, of which 40 per cent is expected to come from private sector.

Table 4: Showing Marginal increase in INR Billion and % in Government (MIG), Private (MIP) and Total Expenditure (MIT), assuming 2007-08 as 100 or Base (11th 5-yr Plan Pd)

MIG	MIP	MIT	%+/-G	%+/-P	%+/-T	
100.00	100.00	100.00				
118.4606	115.5401	117.4089	18.46	15.54	17.41	34.00
99.89212	110.5006	103.6518	-18.57	-5.04	-13.76	-23.61
132.9881	170.3969	147.1219	33.10	59.90	43.47	92.99
150.3821	166.2982	157.3468	17.39	-4.10	10.22	13.30
			50.38	66.30		116.68

Source: Author's own calculation and a derivative from the original table given in the appendix

Research Methodology and Hypotheses

The data used in this study are mostly secondary in nature. They have been collected from the official website of NHAI, Planning Commission, MOSRTH, Various RBI Reports, Transport Division of the Planning Commission, Budget section of the Ministry of Road Transport and Highways, Basic Road Statistics of GOI (2009-11), 'World Road Statistics 2011', published by International Road Federation, Geneva etc. Statistical Analysis is done with SPSS 21, MS Office Excel 2007 and other tools.

On the basis of theoretical framework, we formulate the following two hypotheses (Null and Alternative Statement):

Hypothesis 1: A) H_{10} : Private Sector Expenditure and Government Sector Expenditure come from the same population

B) H_{1a} : Private Sector Expenditure and Government Sector Expenditure do not come from the same population

Hypothesis 2: A) H_{20} : The dependent variable (Year-wise investment in Rs. Billion) does not depend on independent variables (Year-wise Award of Length, Year-wise Length Constructed)

$$H_0: (b_1=b_2=0)$$

B) H_{2a} : at least one $b_i \neq 0$ (i.e., Dependent variable depends on at least one of the Independent variables)

Results, Workings and Findings

Table 5: Calculation of Chi-square statistic from table 4

E= (Row Total)x(Col Total)/ Total no of Observations		$\chi^2 = \sum (O-E)^2/E$	
14.68139334	19.31938	0.972845	0.739295
-10.19385512	-13.4142	-6.88012	-5.22842
40.15366365	52.83857	1.240507	0.9427
5.740852675	7.554439	23.6541	17.97548
		final chi	33.41638

Source: Author's own calculation

For hypothesis 1, we have applied Chi Square Test of Homogeneity. As per the result, the value 33.42 is more than 7.81 (tabular) at 3 d.f, hence we reject NH ($p=.05$) and accept that Private Sector and Government Sector expenditure do

not come from same population. Source of funding through Private investors have been justified by this hypothesis which is also reflected in the Government approach in the recent growth of Roadways Sector.

Table 6: Calculation on the basis of Table 2

Variables Entered/Removed ^a									
Model	Variables Entered	Variables Removed	Method						
1	Constructed, Award ^b		Enter						
a. Dependent Variable: Investment									
b. All requested variables entered.									
Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.982 ^a	.965	.930	14.120	.965	27.604	2	2	.035
a. Predictors: (Constant), Constructed, Award									
ANOVA ^a									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	11006.466	2	5503.233	27.604	.035 ^b			
	Residual	398.734	2	199.367					
	Total	11405.200	4						
a. Dependent Variable: Investment									
b. Predictors: (Constant), Constructed, Award									

Coefficients ^a											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	143.437	49.258		2.912	.100	355.375	68.501			
	Award	.000	.003	.008	.063	.955	-.013	.013	.092	.045	.008
	Constructed	.130	.018	.982	7.397	.018	.054	.205	.982	.982	.978
a. Dependent Variable: Investment											

Variable Processing Summary

		Variables	
		Dependent	
		Award	Constructed
Number of Positive Values		5	5
Number of Zeros		0	0
Number of Negative Values		0	0
Number of Missing Values	User-Missing	0	0
	System-Missing	0	0

Award

Linear

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.286	.082	-.224	2561.585

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1756448.100	1	1756448.100	.268	.641
Residual	19685153.900	3	6561717.967		
Total	21441602.000	4			

Coefficients

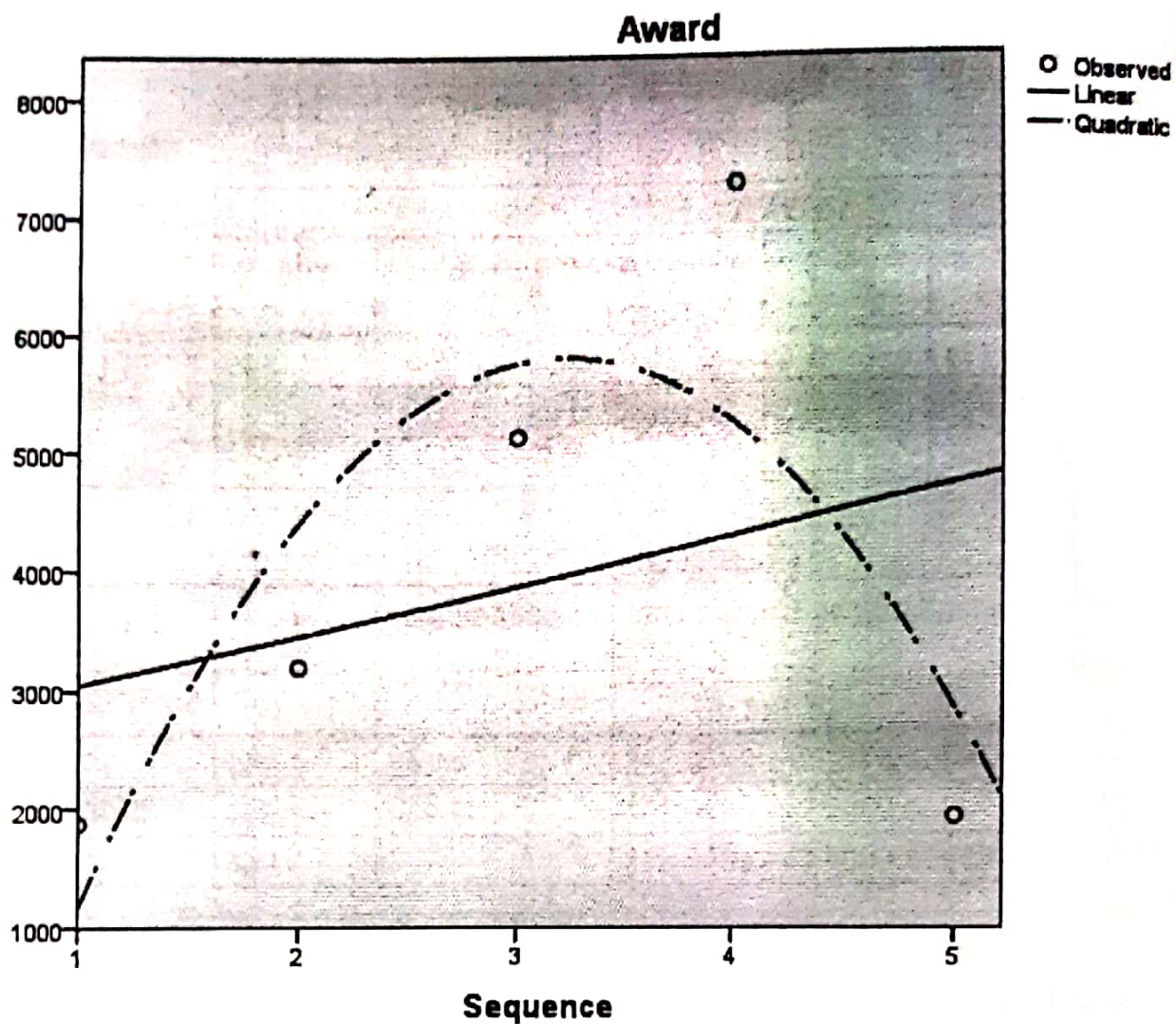
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Case Sequence	419.100	810.044	.286	.517	.641
(Constant)	2631.700	2686.613		.980	.400

Quadratic

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.812	.660	.320	1909.228

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	14151300.171	2	7075650.086	1.941	.340
Residual	7290301.829	2	3645150.914		
Total	21441602.000	4			

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Case Sequence	6064.671	3120.538	4.142	1.943	.191
Case Sequence ** 2	-940.929	510.263	-3.930	-1.844	.206
(Constant)	-3954.800	4094.838		-.966	.436



Constructed

Linear

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.935	.875	.833	164.985

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	571688.100	1	571688.100	21.003	.020
Residual	81659.900	3	27219.967		
Total	653348.000	4			

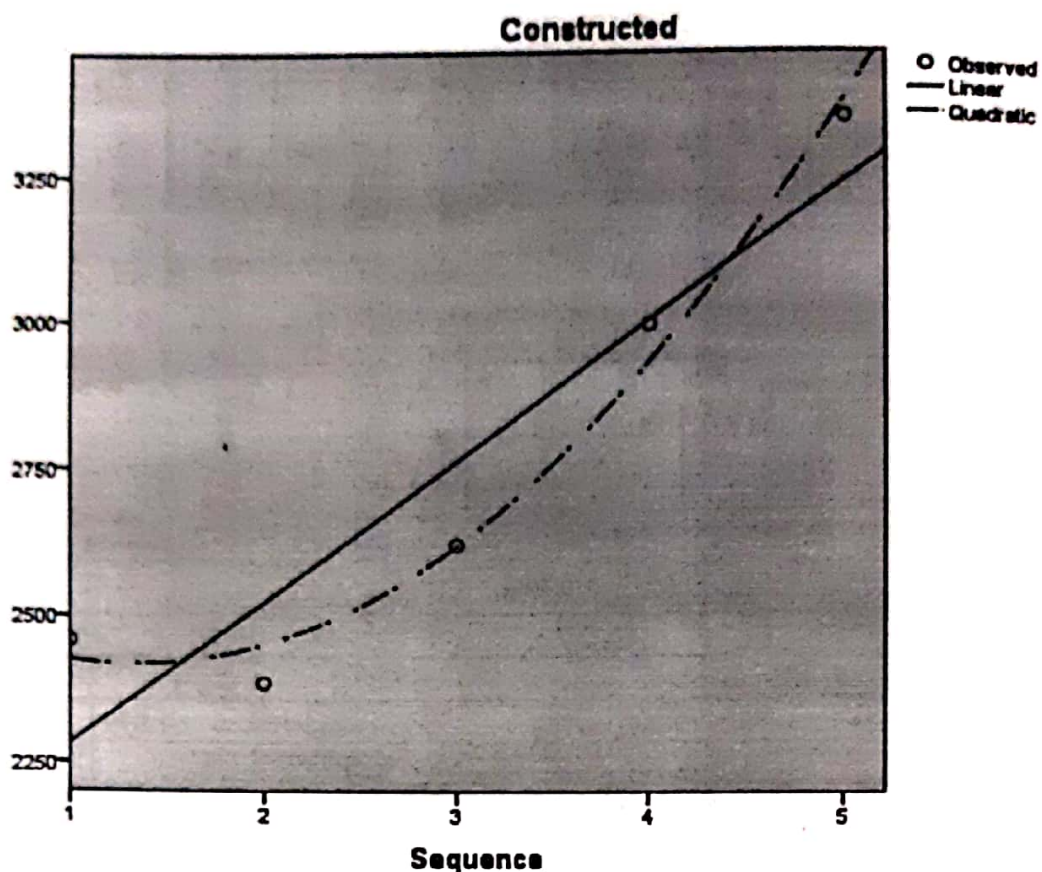
Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Case Sequence	239.100	52.173	.935	4.583	.020
(Constant)	2043.700	173.037		11.811	.001

Quadratic

Model Summary			
R	R Square	Adjusted R Square	Std. Error of the Estimate
.992	.984	.968	72.021

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	642973.886	2	321486.943	61.979	.016
Residual	10374.114	2	5187.057		
Total	653348.000	4			

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Case Sequence	-189.043	117.715	-.740	-1.606	.250
Case Sequence ** 2	71.357	19.248	1.707	3.707	.066
(Constant)	2543.200	154.468		16.464	.004



For hypothesis 2, we applied Multiple Regression Analysis, considering Investment (INV) as dependent, and Length Constructed and Length Awarded as independent variables. R square value of 96.8% describes major variability. To justify this variability, we applied F test for ANOVA. The result implies at least one of the independent variables is significant. The calculation table shows that out of the two, Length constructed is significant ($p < .05$) while others including the predictor are not. The finding rejects the null hypothesis and implies that rather than the Length-awarded (Year wise), Length-constructed (Year wise) is the more significant determinant of Investment in Roadways sector.

Conclusion

Financing is still one of the major constraints for the road sector. Most of the large developers

or EPC contractors have kept the provision in their Balance Sheet to raise more debt for future. This restricts them to raise further debt for funding new road projects. This is one of the reasons for delay in financial closure. Domestic banks are exhausted to their maximum limits for lending in the infrastructure sector. The refinancing option through IIFCL has not become popular. Most of the large companies, playing a integrated role of developers as well as EPC contractors, are relatively few in numbers but have grabbed maximum number of projects in this sector. The present Government has discarded 41 unviable projects and about 8-10 problematic projects worth of INR 300 billion are to be sorted out. In 2013-14, the Government awarded 3625 km, while constructed 3950 km of roads. It has already constructed 3962 km out of 6353 km awarded till December for the year 2015-16. This trend

has acknowledged the "Road constructed" approach of this article and will surpass 6000 km mark, bypassing 5700 km of roads completed in 2012-13. Certain innovative approach for funding like Toll-Operate-Transfer (TOT) has been initiated by the present

Government. Under this scheme, a private firm can take over a stretch already built up under NHAI for an upfront fee. 104 highway projects have been identified under this approach, where future revenues can be securitized.

Appendix

Table I: Ministry of Road Transport and Highways Central Roads sector outlay and expenditure –Gross Budgetary Support (GBS) [RsCrore]

S No		Schemes/Programmes	Eleventh plan (2007-		Annual Plan 2007-08		Annual Plan 2008-09		Annual Plan 2009-10		Annual Plan 2010-11		Annual Plan 2011-12	
		Outlay	Budget Estimate	Expenditure	Budget Estimate	Expenditure	Budget Estimate	Expenditure	Budget Estimate	Expenditure	Budget Estimate	Expenditure	Budget Estimate	Expenditure (Prov.)
1	2	3	4	6	7	9	10	12	13	15	16	18		
	Total (BS)	71,830.00	12,440.00	12,340.48	13,270.00	13,349.39	15,198.00	13,690.71	17,700.00	17,800.30	19,600.00	17,426.48		
	IEBR	34,829.00	2,090.00	305.18	4,100.00	1,630.74	5,000.00	1,273.26	7,455.00	2,100.00	17,500.00	12,500.00		
	Total GBS + IEBR	106,659.00	14,530.00	12,645.66	17,370.00	14,980.13	20,198.00	14,963.97	25,155.00	19,900.30	37,100.00	29,926.48		
	Private Sector Investment	86,792.00	7,325.00	7,057.38	13,938.00	8,179.75	16,071.66	8,944.61	21,256.00	15,354.37	23,301.68	25,749.38		
	Pvt Sec (non-NHDP)			60.00		43.68		142.33		129.49		0.00		
	Total Pvt Sect		7,325.00	7,117.38	13,938.00	8,223.43	16,071.66	9,086.94	21,256.00	15,483.86	23,301.68	25,749.38		
	Total Central Roads Sector		21,855.00	19,763.04	31,308.00	23,203.56	36,269.66	24,050.91	46,411.00	35,384.16	60,401.68	55,675.86		

Source: Planning Commission

Table II: Expenditure (in INRBillion): Central Road Sector-Government & Private sector with percentage

A.PLAN	GSEXP	PSEXP	TOTEXP	G%	P%
2007-08	126.4566	71.1738	197.6304	63.986411	36.013589
2008-09	149.8013	82.2343	232.0356	64.5596193	35.4403807
2009-10	149.6397	90.8694	240.5091	62.21789529	37.78210471
2010-11	199.0030	154.8386	353.8416	56.24070205	43.75929795
2011-12	299.2648	257.4938	556.7586	53.75126671	46.24873329

Source: Author's own calculation

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A STUDY ON THE PROSPECTS OF ECO-TOURISM AND ITS POTENTIAL FOR ECONOMIC DEVELOPMENT IN KODAIKANAL, INDIA

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Dr. V. Kumaravel**

Abstract :

Ecotourism has expanded fast and in a revolutionary way. It is an offshoot wave of environmental awareness. Kodaikanal has a vast opportunity in this area. Ecotourism has the capacity to deliver a lot of economic benefits to traditional cultures. The study is exploratory in nature and depended both on primary and secondary sources of data. Primary data were collected with the help of a well-structured questionnaire to get comprehensive information about the profile of tourist, their purpose of visit, perception regarding facilities, their activities and major attractions to choose the place, their major expectation and to know about their satisfaction. The respondents for primary data includes both international and national tourist visiting Kodaikanal. This study reveals that tourism has a positive impact on the social aspects as it provides more and high quality services. The economic benefit of such an activity should accrue to the local population to ensure sustainability.

Keywords: *Eco-tourism, Environment, Kodaikanal, Economic Benefit, Perception*

Introduction

The term ecotourism was coined by Mexican architect Hector Ceballos-Lascurain in 1983, the definition has been evolving ever since. His original description provided a powerful introduction to this new term: "Ecotourism is that tourism that involves traveling to relatively undisturbed natural areas with the specific object of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural aspects found in these areas. Ecotourism implies a scientific, esthetic, or philosophical approach, although the 'ecotourist' is not required to be a professional scientist, artist, or philosopher. The main point

is that the person who practices ecotourism has the opportunity of immersing him or herself in nature in a way that most people cannot enjoy in their routine, urban existences. This person will eventually acquire a consciousness and knowledge of the natural environment, together with its cultural aspects, that will convert him into somebody keenly involved in conservation issues" The definition has evolved throughout the years, but the core principles of Ceballos-Lascurain's initial vision remain.

The word ecotourism may be new, but the concept of ecotourism actually has roots much earlier in history. We could go back to the Egyptian, Greek, and Roman civilizations to find

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the earliest forms of tourism, but throughout those times nature tourism was still relatively absent (at least in the written literature of the times). It wasn't until a grand revolution in society, culture, and education that we see something largely resembling today's ecotourism. This was the period of the Grand Tour.

The Grand Tour predominated tourism in the 18th and 19th centuries when it became relatively popular for young men (around today's college age range) to embark on pre-planned, multi-year journeys of discovery across the Europe for the sake of education. Early on in the Grand Tour Era, the itineraries and routes focused on the hubs for culture, fashion, and the arts. Places like Versailles and Paris were must-dos. Think of the tour as a culmination of social refinement of the time. However, over the course of 100 years or so, the education encapsulated in these tours began to focus on the natural world. By the 19th century, Grand Tours revolved around the natural components between major cities and in some cases, the tours changed completely. Prominent figures like Darwin, Wallace, Humboldt, and Bates were some of these young Grand Tourists who pushed the envelope and deviated from the typical European circuit. Visiting places like Malaysia, the Galapagos Islands, and the Amazon, these "Pioneers of Ecotourism", as I like to call them, initiated a new Grand Tour that emphasized discovery, education, and novel experiences in nature. They didn't just embark on "nature tourism", for they positively impacted local cultures, wrote essays on the benefits of environmental conservation, and developed new ways to educate the world about the wonders of nature.

The Grand Tour did not stop evolving. As the 19th century progressed, the Grand Tour

became more and more popular and practical for much of society at the time. Tours began to shorten from multi-year to only weeks or months. Destinations, durations, and even age ranges of Grand Tourists became more and more varied. By the mid 19th century, a true travel industry was born, with travel agencies and tour operators becoming relatively large enterprises catering to all levels of society.

Fast forward to today. The travel industry is alive and well, with new modes of transportation (i.e., airplanes and cars) enabling all sorts of new travel possibilities. Finding wilderness no longer requires multi-year journeys by ships and is no longer reserved for the most intrepid of explorers and adventurers. A sense of discovery and adventure is now available to a massive subsection of our global society, exposing people to remote areas that are in critical need of advocacy and conservation. Ecotourism is now a tool to promote conservation of nature and culture, not just a way to culminate one's education in a grand learning experience.

The spirit of early ecotourism is still with us today and the values and components have become more organized. Since 1983, the term ecotourism continues to gain popularity and evolve in its message and influence. Large organizations like the IUCN (International Union for Conservation of Nature) and the UN (United Nations) have adopted ecotourism as both a term and a strategy for sustainable travel and environmental conservation. Ecotourism is not only present in the travel industry, but also in academia, with entire college degree programs focusing on the subject. Organizations like The International Ecotourism Society and others offer online education, ecotourism certification programs, and a host of other tools to promote ecotourism and to make sure that it's done right, with

environmental conservation and community welfare front and center.

So, the takeaway point is that ecotourism, although new in definition, has been around for centuries. There were early pioneers that led us to our current methodology, but ecotourism continues to evolve. We are at a very interesting time in the evolution of ecotourism, primarily because of its extreme popularity and its ability to make meaningful change in the way we as a society view our world.

OBJECTIVES OF THE STUDY

The Following are the Main Objectives of the Study:

1. To study the prospects of ecotourism at Kodaikanal.
2. To trace the motivational factors of ecotourism in Kodaikanal.
3. To analyze the problems faced by the local stock holder in the study area.
4. To offer suitable suggestions to develop ecotourism in the study area.

RESEARCH METHODOLOGY

The study will be exploratory in nature and will depend on primary and secondary sources. Primary data will be collected with the help of a well-structured questionnaire (one each for Domestic and Foreign Tourists) prepared to get comprehensive information about the profile of tourist, their purpose of visit, perception regarding facilities, their activities and major attractions to choose the place, their major expectation and Satisfaction. The respondents for primary data would be all International and National Tourist visiting Kodaikanal.

Secondary data will be collected from books, magazines, newspapers. Data available in

Various Reports of World Tourism Organisation (WTO), Department of Tourism, Government of India, Government of Tamilnadu and Tamilnadu Tourism Corporation besides some publications will be used. Reports of research scholars, universities and economists will be used. Above all, the wealth of information available on the internet would be used after cautiously analysing the contents and their limitations.

SAMPLING

A Sample size of 50 Respondents will be collected from the Stakeholders of Kodaikanal. The Stakeholders includes - Tourism-oriented non-governmental organizations, Educational institutions, Government bodies, Industry bodies, Shop keepers, Hoteliers, Educational institutions, Suppliers, Local community.

A sample size of the present study will be 50 Respondents, which will be collected from Hoteliers, Shop keepers and other Stake holders in Kodaikanal. The tourist population at Kodaikanal is floating and infinite. Hence convenience sampling technique will be adopted for selecting the sample.

ANALYSIS AND INTERPRETATION OF DATA

The calculated data could be tabulated according to the need of the study, in the present study the following Statistics will be used for Data Analysis and Interpretation.

- Chi-Square tests
- Percentage Analysis

REVIEW - STUDIES ON ECOTOURISM

Following are some of the research studies on tourism and ecotourism. Batra (1990) in his

study on 'Tourism in Rajasthan-Problems, Potential and Future Prospects' points out the various snags, impediments and obstacles in the promotion of tourism in the state of Rajasthan in particular and India in general, some of which are in-built in nature. He strongly recommends that, tourism activity in Rajasthan must be taken as a dynamic tool in uplifting the social status of the society. For this he recommends frequent get together of local people with the foreign tourists. According to him such meetings will help to break some of the age-old rotten social barriers and orthodox systems prevalent in the state.

Sudheer's (1992)¹ study on 'Tourism in Kerala-Problems and Prospects' highlighted the importance of tourism in Kerala and various problems confronting the tourism sector.

According to **SanthoshThampi (2001)²** ecotourism came into prominence as a strategy for reconciling conservation with development in ecologically rich areas. He points out that ecotourism comprises a number of inter-related components all of which should be present for authentic ecotourism to occur.

Rajakumari (2007)³ in her study on 'Tourism-An Epitome of Incentives' explains that to decrease financial leakages in tourism, it would be important to increase local ownership of tourism-related business, building up tourism infrastructure using local investors and avoiding purely foreign investment.

BijenderPunia (1999)⁴ in his study on 'Problems and Prospects of Tourism in Haryana' has highlighted the importance of elements like climate, seasonality, accessibility, attitude of host population, availability of manpower resources and the planning expertise in tourism development in any area, region, state or country.

Seema and Jojo (2006)⁵ in their study hold the view that ecotourism in the Indian context has significant implications for nature and culture conservation, rural livelihoods and conservation education. Existing documents on ecotourism policy are briefly reviewed in this paper to draw insights for the Indian context. This paper also suggests ways of linking indicators of impacts and incentives.

PoyaMoli (2007)⁶ in his paper on 'Eco-Cultural Tourism in Indian Islands: Some Implications' attempted to focus on paradigm shifts in tourism and environment management with particular reference to Indian Island eco systems. Sustainable alternatives are suggested to ensure that the tourism in Indian Islands are not merely financially self-sustainable, but ecologically and socially sustainable as well, besides culturally responsible.

Haque Immanuel and Shanawaz Ahammed Dur (2007)⁷ in their study titled 'Dynamics of Tourism Economics: An Indian Perspective', showed the significance of tourism specifically with reference to employment sector, infrastructural facilities and poverty eradication.

According to **Vijayakumar (1995)⁸** "ecotourism implies an enjoyment of nature's bounty as well as understanding the culture and natural history of the environment". His thesis mainly stressed the promotion of ecotourism in Kerala as it cares the conservation of ecosystem, while respecting the environment.

KatjaPactz (1997)⁹ studied the relationship between sustainable development and tourism and concluded that "sustainable development is to be seen as the way forward to guarantee the long term viability of the tourism business".

Rao (2005)¹⁰ after analysing the relationship between tourism and foreign exchange

concluded that tourism is a revenue earner and the most significant source of foreign exchange in several countries. He warns that a badly organized tourism development strategy will have some adverse effects on the country rather than the development of the country.

Anil Reddy (2000)¹¹ in his paper holds the view that ecotourism is entirely a new approach in tourism. It is reserving travel to natural areas to appreciate the cultural and natural history of the environment. He reviews various issues and information about ecotourism.

Manonmoney (1995)¹² in her study highlighted the benefits and problems encountered while framing and implementing ecotourism measures. According to her the three main aspects to be emphasised under ecotourism are prevention of pollution, carrying capacity based tourism and tourist environmental policy.

According to **Dhanasekaran (2005)¹³** "protection, development and improvement of the various constituents of the environment are among the basic conditions for the harmonious development of tourism". Similarly intelligent tourism management can contribute in large

measure to the protection and development of the physical environment and cultural heritage of mankind as well as the improvement of the quality of human life. It is therefore advisable that tourism development and sound environmental management should be integral concerns of national development policies.

Syamala (2002)¹⁴ believes that ecotourism has become a need for everyone who wants to refresh from the routine fast city life. Ecotourism provides many interesting tours to the heart of Mother Nature. Ecotourism in India is about taking a break from the busy life and leading a slow paced life in the midst of greenery. In her words, instead of waking up with the alarm we can wake up with the chirping of birds, we can have healthy and timely food rather than having fast food-fried stuffs. India offers many ecotourism spots, which are safe.

Aga IqrarHaroon (1999)¹⁵ emphasised the role of communities in ecotourism. To him ecotourism has no meaning without the role of local communities. Ecotourism is a blend of controlled activities of a group of people having a goal of sustainable development in their respective area.

Statistical Tools

Origin of Clients

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Foreigners	16	53.3	53.3	53.3
	North Indian	5	16.7	16.7	70.0
	South Indian	7	23.3	23.3	93.3
	Localites	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

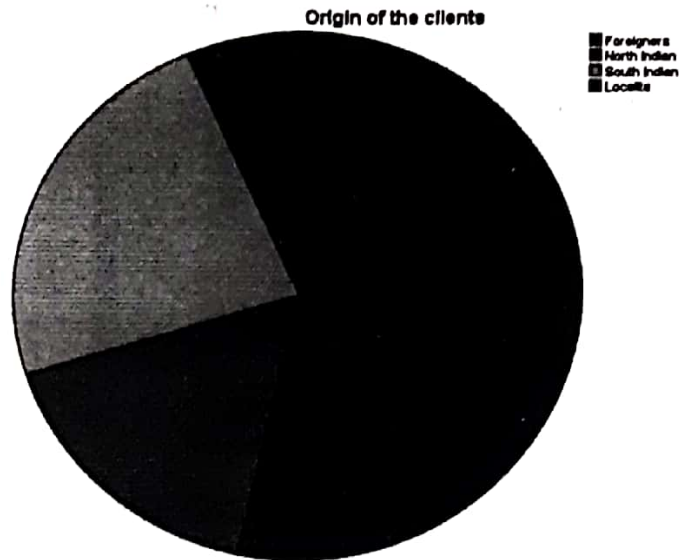
Source: Primary data

Inference

Foreigners use the maximum use of the facilities provided by the respondent that is 53.3 %

then comes South Indians with 23.3% and thirdly North Indians with 16.7% and finally localites with 6.7% .

Figure No 1:



Type of Client

		Frequency	Percent	Valid Percent	Cumulative Percent
	Ecotourists	10	33.3	33.3	33.3
	Standard tourist	16	53.3	53.3	86.7
	Business people	4	13.3	13.3	100.0
	Total	30	100.0	100.0	

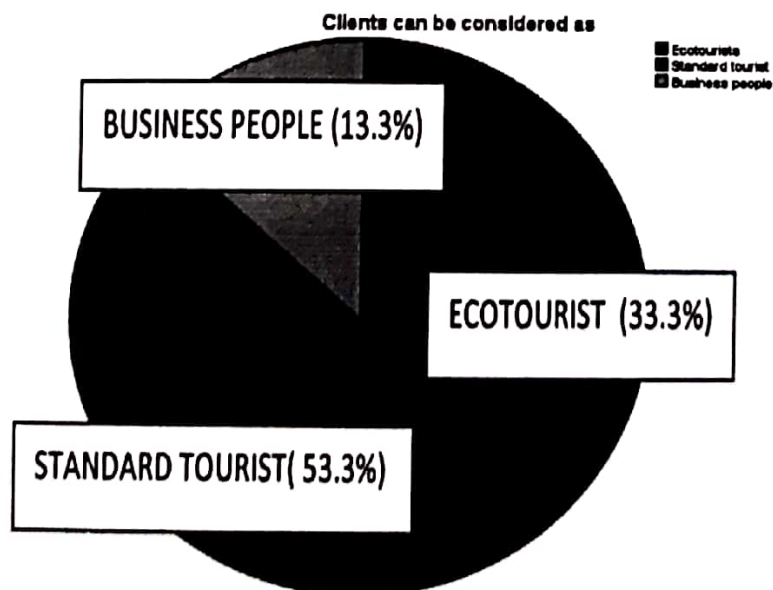
Source: Primary data

Inference

considered as Ecotourists and the rest 13.3% are business people.

53.3% of the clients can be considered as standard tourist, 33.3% of the clients are

Figure No 2:



Scope of Ecotourism in Kodaikanal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much	15	50.0	50.0	50.0
	Rarely	9	30.0	30.0	80.0
	Never	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

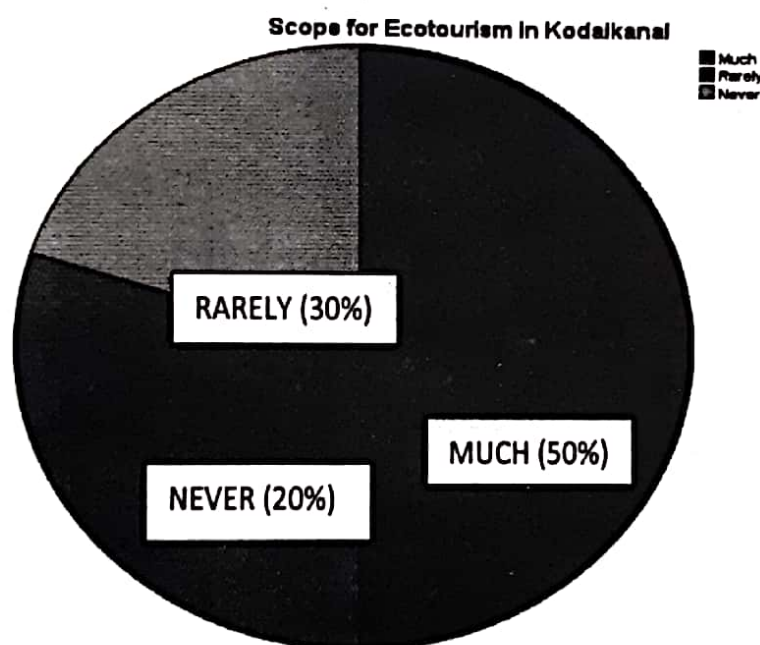
Source: Primary data

Inference

50% of the respondents do think there is much scope for ecotourism in Kodaikanal, 30% of

the think that there is not much scope for Ecotourism and another 20% declares that there is no scope for Ecotourism in Kodaikanal.

Figure No 1



Prospects Perceived to Promote Ecotourism

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Wildlife	6	20.0	20.0	20.0
	Nature	15	50.0	50.0	70.0
	Chocolate factory	4	13.3	13.3	83.3
	Wilderness Experience	3	10.0	10.0	93.3
	Tribal Visit	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

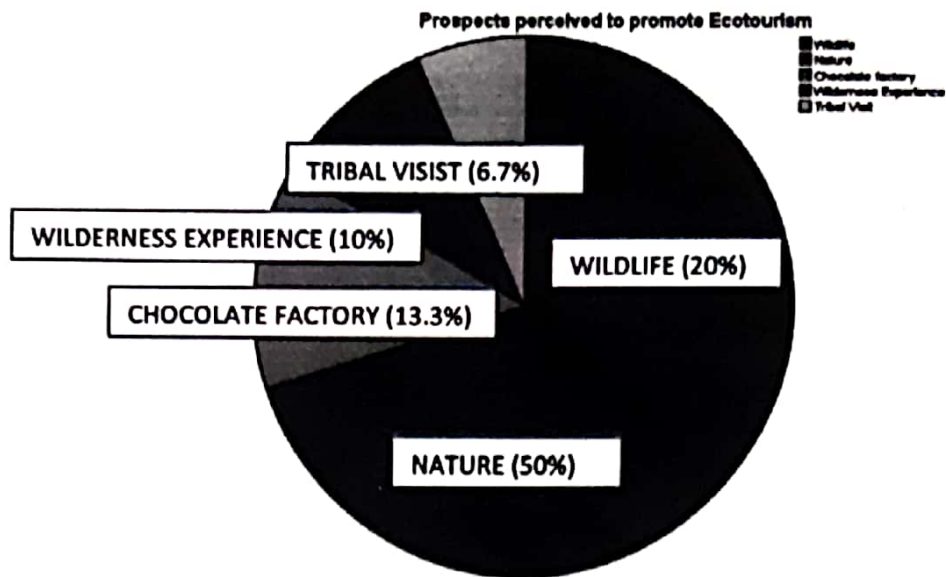
Source: Primary data

Inference

Majority 50 % of the respondents chose nature as the main prospect to promote Eco Tourism and 20 % selected wildlife and another 13.3%

selected chocolate factory visit and 10% promote wilderness experience and the rest 6.7% thinks tribal visit should be promoted.

Figure No 2



Classification of Business * Prospects perceived to promote Ecotourism (Cross tabulation)							
Count							
		Prospects perceived to promote Ecotourism					Total
		Wildlife	Nature	Chocolate factory	Wilderness Experience	Tribal Visit	
Classification of Business	Small	0	6	0	0	0	6
	Medium	5	5	2	3	1	16
	Large	1	4	2	0	1	8
Total		6	15	4	3	2	30

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.625 ^a	8	.169
Likelihood Ratio	14.297	8	.074
Linear-by-Linear Association	.634	1	.426
N of Valid Cases	30		
a. 14 cells (93.3%) have expected count less than 5. The minimum expected count is .40.			

Main Activity * Is Ecotourism benefiting Kodaikanallocalite (Cross tabulation)				
Count		Is Ecotourism benefiting Kodaikanallocalite		Total
		Yes	No	
Main Activity	Accomodation	9	3	12
	Food & Beverage	5	2	7
	Tour Guide	4	0	4
	Transporaton	3	1	4
	Tour Operator	2	1	3
Total		23	7	30

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.517 ^a	4	.824
Likelihood Ratio	2.407	4	.661
Linear-by-Linear Association	.001	1	.975
N of Valid Cases	30		
a. 8 cells (80.0%) have expected count less than 5. The minimum expected count is .70.			

Suggestions

- The analysis shows in that 36% of the respondents are not interested to conserve local environment and to promote eco-tourism at Kodaikanal. Hence the researcher suggests, Awareness campaigns would advantage Eco Tourism.
- The data interpreted from theis that 43.3% of the Employees are untrained Employees about the Prospects of Ecotourism at Kodaikanal. Effective training programmes would enhance the promotion of Eco Tourism.
- Hoteliers can be offered with Subsidies and incentives to promote Ecotourism. With Annual awards or achievement form the Government.
- The study reveals that 60% of the tourist who come to Kodaikanal are non packaged tourist. Hence it is suggested that a Package can be designed which includes the uniqueness of Kodaikanal, Tribal visit in the rural areas of Kodaikanal can be done to understand more about the culture diversity and social lively hood of the people in those area, exploring wildlife and bird watching, nature safari, chocolate factory visit, sheep farm rearing coffee estates , trekking etc. and the same can be promoted through Advertisement, TV Ads, Banners, Pamphlets and Online Portals.
- To promote Adventure Tourism, five Centres may be set up initially, with international standard, with the operational support of agencies having the necessary experience and expertise.

- At present, there is no mechanism to assess the quality of services provided in the Tourism sector. Hence a mechanism has to be developed to assess the quality of services.
- To attract tourists in large numbers, cleanliness plays a vital role. Hence priority should be given to removal of garbage and cleaning the water ways. The Local bodies may be actively involved in the cleaning campaign and a part of proceeds from the income generated by the tourism may be devolved to Local Bodies.

Conclusion

Ecotourism has expanded fast and in a revolutionary way. It is an offshoot wave of environmental awareness. Due to tourism's strong role in the nations and economies of the world, the need for tourism research is imperative. The movement towards ecotourism in India is at once a threat and an opportunity to create more sustainable tourism. By diverting tourist traffic to ensure that the carrying capacity of any destination is not exceeded, by planning for regeneration of natural resources, and by generating awareness in the host community whereby they are prepared to deal with the negative impact of mass tourism are the ways of attaining sustainability. There is a considerable scope for research on the evaluation of ecotourism projects in Kodaikanal.

International tourists would want to travel in environmental friendly ways to environmentally sound destinations. As ecotourism grows in popularity there are a number of challenges that need to be faced. For eliminating weaknesses mentioned in this thesis, a planned approach is needed and thereby Kodaikanal can attract

more and more eco-tourists and create an image of one of the world's best ecotourism destination. Kodaikanal has a vast opportunity in this area. Ecotourism has the capacity to deliver a lot of economic benefits to traditional cultures. However, whether those benefits are realized depends on how well the ecotourism is managed. There is an urgent need for improved analysis of ecotourism issues as part of the ecotourism planning and development process.

The growth of tourism without proper control and supervision will endanger the environment. Tourism in ecologically sensitive area needs close monitoring. In Short, tourism in nature-based areas should be ecologically sustainable. There should also be provision for learning process for a visitor. Ecotourism could be a tool for environmental conservation, local empowerment, poverty alleviation and so on. So it requires well planning on the basis of regulations. This study reveals that tourism has a positive impact on the social aspects as it provides more and high quality services. The economic benefit of such an activity should accrue to the local population to ensure sustainability.

Ecotourism enjoys a significant superiority over general tourism with regard to tourist arrivals and economic, social and environmental benefits. In a nutshell, it can be concluded that ecotourism development and protection of environment can be made possible with the careful planning and execution by the government departments, tourist officials along with the co-operation of the public. In future, ecotourism will continue to grow in several parts of the world as a profitable way of life.

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AN ANALYSIS OF THE CO-MOVEMENT BETWEEN GOLD EXCHANGE TRADED FUNDS (ETFs) AND EQUITY ETFs

Dr. M. Swathy*

Abstract :

Exchange Traded Funds (ETFs) represent an Index or a basket of securities which can be traded like individual stocks throughout the trading day on a stock exchange unlike traditional mutual funds which are traded on Net Asset Value (NAV) at the end of the day..Investors who had invested only in equities over the past few years have realized the affects of downside risk. But investors who were well-diversified right from the beginning are aware that when equity fails to deliver, other asset like gold rescues them from losses. Six Equity ETFs, One Gold ETF listed on National Stock Exchange [NSE] were selected to perform an empirical study on correlation between gold and equity. For calculating the returns daily trading prices during one financial year [1/04/2015 to 31/03/2016] were considered. Coefficient of correlation using daily returns over the study period, was the research tool or methodology applied.

Keywords: Exchange Traded Funds (ETFs), Six Equity ETFs, One Gold ETF.

Introduction

Exchange Traded Fund (ETF) is a security that tracks an index, a commodity or a sector like an index fund or a sector specific fund but trades like a stock on an exchange. It is similar to a close-ended mutual fund listed on stock exchanges ETF's experience price changes throughout the day as they are bought and sold. Each ETFs "basket" of underlying securities is transparent and is published every day. An ETF either replicates its target index entirely or it invests in a representative sample of the stocks in the underlying index. Like stocks, ETFs trade throughout the day and their prices fluctuate accordingly. The pricing of an ETF closely tracks the price changes in its underlying securities. In India ETFs are traded on the NSE

are broadly classified into Equity ETFs and Gold ETFs. An Equity ETF tracks benchmark stock indices whereas a Gold ETF tracks the price of real gold commodity. Those who had invested only in equities over the past few years have probably realized that investing only in stock markets could lead them to high value at risk. But investors who were well-diversified right from the beginning are aware that when equity fails to deliver positive returns, other asset classes can come to their rescue. And gold is the most prominent among this asset classes. It is a fact that equity and gold do not go together. Hence, when equity goes up, gold comes down and vice-versa. And this gives investors enough opportunity to gain from either asset class, especially when the other is making a loss. While the inverse relationship between

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these two asset classes has been in existence for long the present study analyzes the returns generated by these two categories, it encapsulates one financial year to prove the inverse relation between gold stock and equity stock.

Literature Review

According to JayanthiMalathyandRadhulya (2013),the Gold ETF offers very high security to the investor and also offers a high degree of liquidity in times of emergency. In this paper an attempt has been made to find out the major factor that influences the investment in Gold ETF by taking into consideration 11 factors and Factor Analysis technique has been applied to find the underlying dimensions (factors) that exist in these variables.

Nawaz and Sudindra's (2013) study "A study on various forms of gold investment" tries to study forms of gold investment available to investors. The objectives of this study was to understand the various investment options for investors, pros and cons of various forms of investments and to assist investors in creating awareness about various gold investment options.. Based on this research it was found that many investors still prefer jewellery, gold coins and gold bullion bars forms of investment and prefer to invest in ETF and Futures and options which gives more profit and easy form of investment.

Vidhyapriya and Mohanasundari (2014) observed thatthe Gold ETF and Gold FoF provide a convenient way to the investors to intervene in the gold market. This paper attempts to compare the performance of Gold Exchange Traded Funds and Gold Fund of Funds. Return and risk of Gold ETFs has been

compared with the return and risk of Gold FoFs. Monthly Net Asset Values (NAVs) for the period from March 2011 to March 2014 were used for both the schemes. The study concluded that the Gold ETFs recorded lesser variability as compared to the Gold FoFs and therefore, the performance of Gold ETFs was better than the performance of Gold FoFs.

Kumara's (2016)study had been carried out to analyze the points of distinction between the two very popular forms of ETFs namely Gold ETFs and Equity ETFs. These fundsare similar in their functioning however it is necessary to understand the difference in their performance so as to be able to choose the right market instrument for investing money. This research project aims at understanding this difference because performance is one of the major factors affecting the popularity of any investment option.

Singh and Singh's (2016)paper analyzes the impact of fluctuation in crude oil prices, gold prices and exchange rate on the stock market indices in the context of Brazil, Russia, India, China and South Africa (BRICS) using daily data and time series method for the period of January of 2003 to December of 2013. To achieve this objective unit root test, Johansen's co-integration test and granger causality test has been applied to examine the interrelationship between these variables and find out that price of oil, price of gold, exchanges rates and stock markets are interrelated among each other.

Research Objectives

This study extends the findings of the above mentioned studies through the following two objectives:

1. To compare the average returns of Equity ETFs with that of Gold ETFs.
2. To evaluate the correlation between daily returns of Equity ETFs with that of Gold ETFs

Research Methodology

Data: For this study the Daily Trading Values of ETFs and their Benchmark Indices listed on NSE were collected for a period of one financial year from [1/04/2015 to 31/03/2016] for the analysis. The Daily Trading Values were collected from the NSE website. Daily Trading Values were used to calculate the Daily Returns of ETFs. The ETFs have been selected for the study on the basis of their inception; Six Equity

ETFs and One Gold ETF listed on NSE were selected as sample for this study. The details of the sample are given below in Table 1.

Hypotheses:

H_0 : Returns on Equity ETFs are positively related to returns on Gold ETFs.

H_A : Returns on Equity ETF's are negatively related to returns on Gold ETFs.

Research Tool:

Correlation Coefficient is calculated for each of the six Equity ETFs with that of Gold ETF and using line charts the correlation between the daily returns of each Equity ETF with that of Gold ETF is depicted.

Table 1: Sample ETFs Selected for the Study listed on NSE

Issuer Name	Name	Symbol	Underlying	Launch Date
Reliance Nippon Life Asset Management Limited	Reliance ETF Gold BeES	GOLDBEES	Gold	Mar 07
Reliance Nippon Life Asset Management Limited	Reliance ETF Hang Seng BeES	HNGSNGBEES	HangSeng	Mar 10
MotilalOswal AMC	MOST Shares M100	M100	NIFTY Midcap 100	31-Jan-2011
Reliance Nippon Life Asset Management Limited	Reliance ETF NIFTY BeES	NIFTYBEES	NIFTY 50 Index	28-Dec-2001
Reliance Nippon Life Asset Management Limited	Reliance ETF Bank BeES	BANKBEES	NIFTY Bank	27-May-04
Reliance Nippon Life Asset Management Limited	Reliance ETF Infra BeES	INFRABEES	NIFTY Infrastructure	29-Sep-10
Reliance Nippon Life Asset Management Limited	Reliance ETF PSU Bank BeES	PSUBNKBEES	NIFTY PSU BANK	25-Oct-07

ANALYSIS AND INTERPRETATION

Table 2: Returns on ETFs

SL.NO.	ETF	AVERAGE RETURN
1	GOLDBEES	0.028304
2	M100	-0.00573
3	NIFTYBEES	-0.03219
4	BANKBEES	-0.046251975
5	PSUBANKBEES	-0.11676
6	INFRABEES	-0.09658
7	HNGSNGBEES	0.03436

Table 3: Correlation between Gold ETF with that of selected Equity ETFs

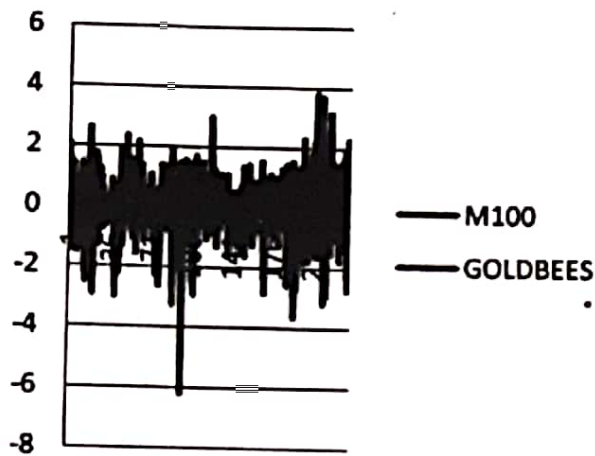
SL.NO	EQUITY ETF	GOLD ETF	CORRELATION COEFFICIENT
1	M100	GOLDBEES	-0.23874
2	NIFTYBEES	GOLDBEES	-0.26437
3	BANKBEES	GOLDBEES	-0.26437303
4	PSUBANKBEES	GOLDBEES	-0.23042
5	INFRABEES	GOLDBEES	-0.09658
6	HNGSNGBEES	GOLDBEES	-0.04671

From Table 2 we observe that out of the 6 Equity ETFs "M100", "NIFTYBEES", "INFRABEES", "BANKBEES", "PSUBANKBEES", had recorded negative returns during the study period whereas only "HNGSNGBEES" had recorded positive returns AND "GOLDBEES" had recorded positive returns, implying that the equity returns move inversely with that of the gold returns.

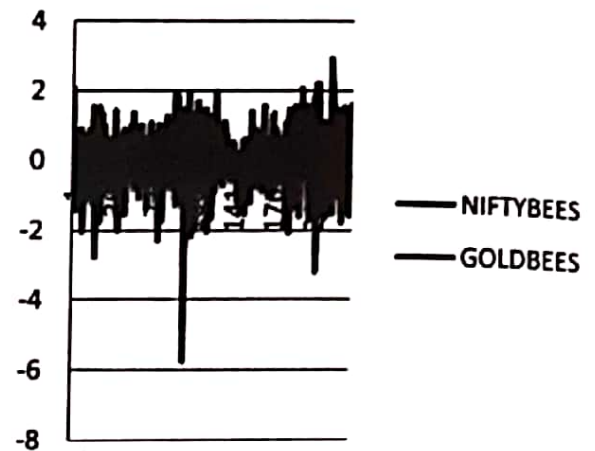
From Table 3 we observe that all the 6 Equity ETFs "M100", "NIFTYBEES", "INFRABEES", "BANKBEES", "PSUBANKBEES", "HNGSNGBEES" have recorded negative correlation with "GOLDBEES" proving that gold and equity move in an inverse direction. Based on the above values the null hypothesis is rejected.

Comparison of Daily Returns Movement of Gold ETF against Equity ETF

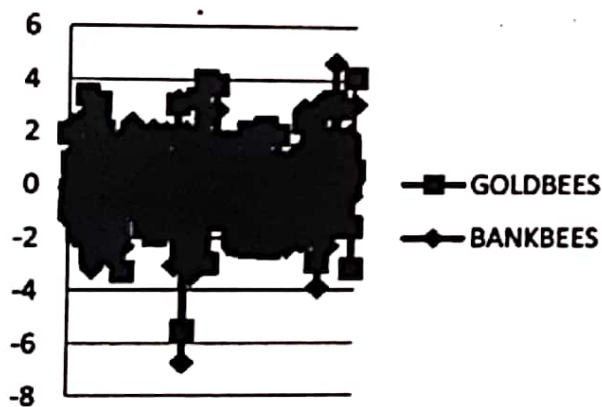
CORRELATION GOLDBEES & M100



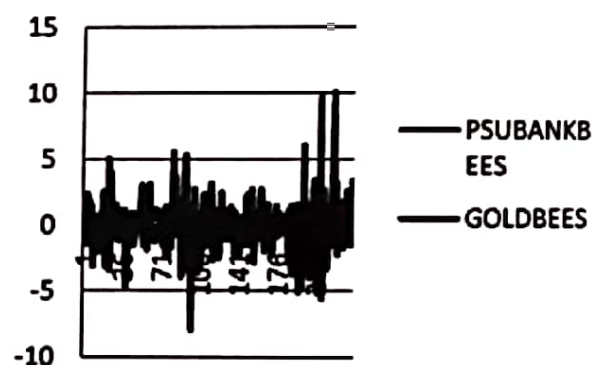
CORRELATION GOLDBEES & NIFTYBEES



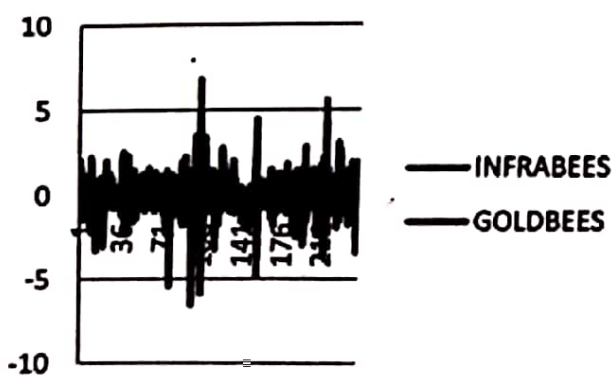
CORRELATION GOLDBEES & BANKBEES



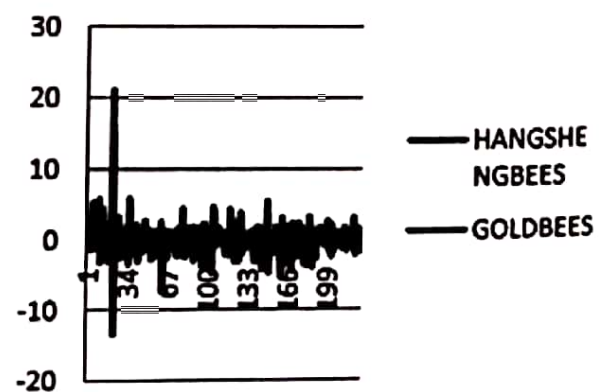
CORRELATION GOLDBEES & PSUBANKBEES



CORRELATION GOLDBEES & INFRABEES



CORRELATION GOLDBEES & HANGSHENGBEES



CONCLUSION

Exchange Traded Funds (ETFs) are innovative financial instruments bearing the twin features of stocks and mutual fund units tracking equity indices or commodities like gold. This study emphasized on the co-movement of the returns from Equity ETF and Gold ETF over one financial year. It was observed that when the Gold ETF had produced positive average return Equity ETFs had delivered negative returns and all the Six Equity ETFs returns had recorded negative correlation with that of Gold ETF returns. Based on the study values we conclude that there is an inverse relation between equity and gold.

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AN EMPIRICAL EVALUATION OF SELECT INVESTMENT STYLES THROUGH RELATIVE PERFORMANCE INDEX

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B. Ratnavalli **

Abstract :

A developed financial market is critical to overall economic development, and mutual funds play an active role in promoting a healthy capital market. Mutual funds are the fastest growing institutions in savings sector. Growing complications and risks in the stock market, rising tax rates and increasing inflation have pushed investors towards investments in mutual funds. A variety of mutual funds have witnessed the Indian market where an investor can form a highly diversified portfolio. So, an attempt is made to evaluate different investment styles through relative performance index which helps the investors to minimize their risk and maximize their return.

Keywords: *Mutual Funds, Performance Evaluation, Risk-Return Analysis, Relative Performance Index.*

Introduction

The mutual fund industry in India began with setting up of the Unit Trust of India (UTI) in 1964 by the Government of India. During last 36 years, UTI has grown to be a dominant player in the industry with assets of over Rs .52000 crores (Rs.520 billion) as of December 2001. In 1987 public sector banks and two Insurance companies (Life Insurance Company and General insurance company) were allowed to launch mutual funds. Securities and Exchange Board of India (SEBI), regulatory body for Indian capital market, formulated comprehensive regulatory framework for Mutual Funds in 1993 and allowed private corporate bodies to launch mutual fund

schemes. Since then several mutual funds have been set up by the private and joint sectors. As on March 2002, there were 35 mutual fund companies with 433 schemes and assets under management were Rs.100594 (Rs.1005 billion). It has been about a decade of competition for Indian mutual fund industry. Indian mutual funds contribute 0.18% to net assets kitty, 0.55% to the number of schemes at global level and we have a long way to catch up with the developed world. The Product Life Cycle of Indian Mutual fund is in growth stage. The performance of mutual funds receives a great deal of attention from both practitioners and academics. With an aggregate investment of over \$11 trillion worldwide and over \$20 billion in India, the investing public's interest in

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identifying successful fund managers is understandable. From an academic perspective, the goal of identifying superior fund managers is interesting as it encourages development and application of new models and theories. The idea behind performance evaluation is to find the returns provided by the individual schemes and the risk levels at which they are delivered in comparison with the market and the risk free rates. It is also to identify the out-performers.

Review of Literature

Bilal, Amir, Saifullah (2011) evaluated the performance of close and open end mutual funds in Pakistan. It provides guidance to the investors on how risk-adjusted performance evaluation of mutual funds can be done and how they can use performance analysis at the time of investment decision making.

Nanadhagopal, Varadharajan, Ramya, (2012) in their article opined that, in the past few years Mutual Fund has emerged as an effective tool for ensuring one's financial well being. Mutual Funds have not only contributed to India's growth story but have also helped the individual investor tap into the success of the Indian Industry.

Kalpesh, Mahesh (2012) evaluated the performance of Indian mutual funds through relative performance index, risk-return analysis, Treynor's measures, Sharpe's measure, Jensen's measure and Fama's measure. The results of performance measures suggest that most of the mutual fund have given positive return during 2007 to 2011.

Sarita Bahl, Meenakshi Rani (2012) investigates the performance of 29 open ended, growth-oriented equity schemes for the period

from April-2005 to March-2011 (six years) of transition economy. The study revealed that 14 out of 29 sample mutual fund schemes had outperformed the benchmark return. The Sharpe ratio was positive for all schemes which showed that funds were providing returns greater than risk free rate.

Sandeep, Sanjeev, Surender (2012) study evaluates the performance of 12 selected mutual fund schemes with the application of Sharpe model and also brings out which scheme is outperforming or underperforming during the study period from May-2005 to April-2009.

Poornima, S., (2013) attempted to analyze about the performance of the growth oriented equity diversified schemes by using Sortino ratio. It also revealed the fact that careful evaluation using appropriate performance measure will lead the investor in selecting the best funds.

Satya Sekhar.G.V. (2013) intended to examine the role of mutual fund organization in financial inclusiveness with reference to performance through public and private sector.

Ashraf SH, Sharma D (2014) made an attempt to analyse the performance of equity mutual funds industry against risk free rate and benchmarks return over the five years samples consisting 10 growths oriented- open ended- equity mutual fund schemes belonging to 5 public and 2 private mutual fund companies. These funds are also observed to have high R^2 values (Coefficient of Determination) indicating the better diversification of the fund portfolio.

G. Brindha(2014) made an attempt to present a theoretical view on performance evaluation of mutual funds as Ultimately, it is important for an investor to study the risk and return involved

in an investment, through which the investor can gain valuable information before investing in any mutual funds.

RESEARCH METHODOLOGY

Research objectives

- To compare the returns provided by the individual Mutual Fund schemes and the risk levels with their market and risk free rates through risk-return analysis.
- To compare the returns of different investment styles through Relative Performance Index.
- To understand how diversification helps to reduce systematic risk through co efficient of variation.

Data and methodology

The required data for the present study was secondary in nature. Samples of 1500 schemes were selected for the present study. The selection of the schemes was made on the basis of the membership in NIFTY from June 2010 to June 2016. Out of them, the schemes which were not in operation and whose NAV is less than zero were eliminated. Finally the researcher was left with 581 schemes belonging to 17 investment styles. The risk-free rate was 7%, the implied yield on the month-end auction of 91-day Treasury Bills which was collected from RBI website. NIFTY was taken as Benchmark Index.

Return

To compare the returns provided by the individual Mutual Fund schemes and the risk levels with their market and risk free rates through risk-return analysis. For this monthly

returns were calculated using daily NAVs for the sampled companies by using the following formula

$$R_{j,t} = \frac{NAV_t - NAV_{t-1}}{NAV_{t-1}} \times 100$$

Where

R_t = Daily return of a mutual fund in the period t

NAV_t = Daily net asset value per unit of the mutual fund in the period t

Return alone should not be considered as the basis of measurement of the performance of a mutual fund scheme, it should also include the risk taken by the fund manager because different funds will have different levels of risk attached to them. Risk associated with a fund, in a general, can be defined as variability or fluctuations in the returns generated by it. The higher the fluctuations in the returns of a fund during a given period, higher will be the risk associated with it. These fluctuations in the returns generated by a fund are resultant of two guiding forces.

Risk

The total risk of the mutual funds under consideration is measured by the standard deviation of the daily returns which was calculated as follows:

Standard Deviation

$$S = \sqrt{\frac{1}{n-1} \sum_{i=1}^n (R_i - \bar{R})^2}$$

Where,

S = Standard deviation (total risk) of the mutual fund

n = Number of daily returns

R_t = Daily returns of the mutual fund

\bar{R} = Mean return of the mutual fund

To compare the returns of 17 investment styles selected, Relative Performance Index was used. It is defined as the ratio of the unadjusted percentage NAV growth and the percentage change in NSE NIFTY.

$$RPI = \frac{(\text{Current NAV-Face value})/\text{Face value}}{(\text{Current NSE NIFTY-NSE NIFTY at issue time})/\text{NSE NIFTY at issue time}}$$

The selected 581 schemes were analysed with the help of Relative performance index.. On the basis of RPI analysis 581 schemes were classified into:

- i) Under performers (returns less than 2%)
- ii) Schemes with returns of 2%-5%
- iii) Schemes with returns 5%-7%
- iv) Schemes with returns 7% and above.(being 7% is the risk free rate)

Co-Efficient of Variation

To understand how diversification helps to reduce systematic risk through co efficient of variation.

The potential advantage of mutual fund investment is the diversification of portfolio. Diversification reduces the unique or unsystematic or diversifiable risk and thus improves the performance. The diversification

extent can be measured by the value of coefficient of variation (r^2). A low r^2 value indicates the fund has large scope for diversification.

Results and discussions

Risk and return relation was analysed for all the 260 funds which have more return than risk free rate of return (i.e., >7%), Unsystematic risk i.e., Variance (σ) was considered.

1. Out of the 260 schemes, 66 were of high risk and 127 were of low risk. 49 funds with Low risk level were offering a return of 8-8.5%, 9 funds with below average risk level were offering a return of 7-7.5% return, 8 funds with average risk were offering 7-7.5% return, 6 funds with above average risk level were offering 8.5-9% return and 21 funds belonging to high risk level were offering 8.5-9% return and only 4 funds even though having high level of risk were offering above 9% rate of return.
2. The selected 581 schemes were analysed with the help of Relative performance index.. 88 schemes were underperformers i.e., less than 2%, 143 schemes have returns of 2-5%, 90 schemes with a return of 5-7% and 260 schemes outperformed (with a return of more than 7% which is risk free rate of return).
3. It was observed that risk and return relation was analysed for all the 260 funds which have more return than risk free rate of return (i.e., >7%). To explain the Risk-Return relation, Systematic risk i.e., Beta ($\hat{\alpha}$) was considered.
4. Out of 581 schemes we have considered only 260 funds which were giving a return more than risk free rate.

5. Out of 260 funds , 211 schemes were of low risk, 3 were of below average risk, 3 were of average risk 2 were in above average risk and 41 schemes belongs to high risk class. 62 funds were of low risk offering a return of 8-8.5%, 3 schemes with below average risk were offering a return of 7.5-9% return, 2 schemes with average risk were offering a return of 8.5-9% return, 1 scheme with above average risk is offering a return of 8-8.5% return, 12 schemes with high risk level were offering above 7-7.5% return only 2 schemes having high risk were offering return of more than 9% return.
6. It was observed that the return, risk and coefficient of variation were calculated for different investment styles. It was observed that average returns for the investment styles range from 4.38% to 7%. Equity technology funds have highest returns followed by gilt long term, equity diversified and equity others. Balanced funds have least average returns.
7. The risk per unit return ranges from 0.10 to 0.96.
8. As far as risk is concerned, Gilt short term funds have high risk 0.03065 and Equity infrastructure funds have low risk 0.3063. The risk per unit return ratio is highest for Gilt long term with 0.96. The average return for the fund is 6.33 and risk is 0.0489. The risk per unit return was lowest for debt short term investment style.

Conclusion

The Indian capital market having a long history spanning over a century has passed through the most radical phases. It has witnessed extraordinary developments and innovations

during the nineties. One such development was the improved role of the mutual funds in financial intermediation. Mutual funds in India have fast emerged as an important instrument of household savings. Due to the flexibility and variety available in them they have the potential to rival traditional money saving instruments by attracting household sector or retail investor's savings. There is an urgent need for aggressive campaign to train the investor about different mutual fund schemes. Mutual Funds should published NAVs of their different schemes as frequently as possible. The mutual fund companies should improve the service level to attract more and more investors.

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Annexures

TABLE 1: Comparing the returns of Selected Investment Styles through Relative Performance Index (RPI)

Scheme Type	Under-performers	Annual Returns (%)			Total
	Below 2	2- 5	5 - 7	7 and above	
Balanced	4	9	1	5	19
Debt Long term	33	26	18	98	175
Debt Short term	31	44	14	55	144
Equity diversified	2	8	15	16	41
Equity index	0	1	0	1	2
Equity Institutional	0	0	1	0	1
Equity Speciality	0	1	0	0	1
Equity Others	1	8	8	11	28
Equity Tax savings	0	6	4	6	16
Equity Technology	0	0	2	1	3
Equity Infrastructure	3	0	2	5	10
Equity Largecap	2	11	7	9	29
Equity Small and midcap	0	3	0	3	6
Gilt long term	2	3	5	10	20
gilt short term	0	1	1	1	3
Hybrid	0	11	3	7	21
money market	10	11	9	32	62
Total	88	143	90	260	581

Table 2: Results of Risk (Variance) and Return

Risk→ Annual Return (%) ↓	Low Risk $\sigma^2 < 0.0009$	Below Avg. Risk $0.0009 > \sigma^2 < 0.0015$	Average Risk $0.0015 > \sigma^2 < 0.0022$	Above Avg. Risk $0.0022 > \sigma^2 < 0.0036$	High Risk $\sigma^2 > 0.0036$	Total
7 - 7.5	19	9	8	1	17	54
7.5 - 8	42	5	4	1	9	61
8 - 8.5	49	4	3	4	15	75
8.5 - 9	14	4	4	6	21	49
Above 9	3	6	4	4	4	21
Total	127	28	23	16	66	260

Table 3: Results of Risk ($\hat{\alpha}$) and Return

Risk→ Annual Return (%) ↓	Low Risk $\beta < 0.3$	Below Avg. Risk $0.3 > \beta < 0.5$	Average Risk $0.5 > \beta < 0.7$	Above Avg. Risk $0.7 > \beta < 0.9$	High Risk $0.9 > \beta < 1.1$	Total
7 - 7.5	41	0	0	1	12	54
7.5 - 8	54	1	1	0	5	61
8 - 8.5	62	1	0	1	11	75
8.5 - 9	35	1	2	0	11	49
Above 9	19	0	0	0	2	21
Total	211	3	3	2	41	260

Table 4: Return and Risk Parameters for Different Investment Styles

S. No	Investment Style	Return (%)	Risk	Coefficient of Variation
1	Balanced	4.386322	0.099775	0.30
2	Debt Long term	5.916416	0.041855	0.11
3	Debt Short term	4.988103	0.03274	0.10
4	Equity diversified	6.188128	0.149164	0.28
5	Equity index	4.948226	0.187272	0.52
6	Equity Institutional	5.527519	0.092472	0.16
7	Equity Speciality	4.657607	0.114201	0.24
8	Equity Others	6.028	0.159903	0.30
9	Equity Tax savings	5.913312	0.183604	0.35
10	Equity Technology	7.001258	0.238894	0.34
11	Equity Infrastructure	5.641536	0.306387	0.10
12	Equity Large cap	5.456015	0.131301	0.34
13	Equity Small and midcap	5.540367	0.079218	0.17
14	Gilt long term	6.331868	0.048984	0.96
15	gilt short term	5.726345	0.03065	0.67
16	Hybrid	4.926947	0.051787	0.11
17	money market	5.852041	0.038625	0.12

A STUDY ON CUSTOMERS' PERCEPTIONS OF SERVICE QUALITY IN IDBI BANK USING GAP ANALYSIS

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Abstract :

In recent years, banks have had to present more various services with higher quality due to the increase in competition and keeping the durability and their profitability. Indeed in these years the increasing trend of competitive environment in the banking industry of the country attracted banks to the field of offering banking services expected by the customers more than before. In this issue paying attention to the effective factors on customers' expectations and its relationship with services quality is one of the important issues of the evaluation of services quality. The present study evaluates the customer perceptions of service quality in selected private sector banks. Data was collected from 200 customers of IDBI bank using structured questionnaire. Gap analysis and Multi regression were used for analysis of the data. The result shows that the dimension of service quality such as Empathy and Accessibility has more gap, as the customer expectations are high to their perceived service. The result also indicates that Empathy-Reliability-Assurance positively influences the service quality. The study implies that bank should reduce the service gap to deliver superior quality of service to retain existing customers as well as to attract new customers.

Keywords: Service quality, Tangibles, Reliability, Responsiveness, Assurance, IDBI bank.

Introduction

Banking sector is the growing sector in India. Performance of banking are plays very important role in the development of economy. So government of India has concern to development of the banks opponent the customers. Service quality has been as an overall assessment of service provided to potential customers of the bank. Generally service quality defined as the extent to which service meets customer need or expectations. Service quality also defined as the difference between customer

expectations with the bank. On the basis of usage service quality has been divided in five dimensions. Tangibles Tangibility means the physical appearance or things which are provided by the bank. The questionnaire which researcher has prepared includes visually appealing of bank offices,

Modern looking equipment of bank employees, attractive printing material of the banks, and dress of the bank employees, parking facilities of the banks, security arrangement of the banks, information that is displayed in the banks,

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drinking water and washroom facility in the bank, number of counters in banks, connectivity with road are considered tangibles items of the service quality.

Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). Nowadays, with the increased competition, service quality has become a popular area of academic investigation and has been recognized as a key factor in keeping competitive advantage and sustaining satisfying relationships with customers (Zeithmal et al...2000). Service quality can be defined as the difference between customer's expectations for service performance prior to the service encounter and their perceptions of the service received (Asubonteng et al.,1996). Service quality can thus be defined as the difference between customer expectations of service and e perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman *et al.*, 1985; Lewis and Mitchell, 1990).

Reliability: This dimension refers to the interest of the bank employees to solve customer problem. It also provided right kind of services at right time. Some attribute of reliability are as services without any error, bank services are performed with in promised with in promised time, sincere concern in solving problems related to banking transaction, corrective action is taken if any error is noticed at any stage, bank performs its services exactly as promised, all kinds of mails are received by the bank at registered mobile number from the branch, any difficulty with the cards, employees are well

aware of the services offered by the bank. These attribute define the reliability situation of the bank.

Responsiveness: This dimension determines the level of involvement of employees and concern for customer required assistant and provided them quick services to customer. Responsiveness also has some attribute which measure the level of responsiveness of the banks. It includes the following bank employees quickly respond to my work, bank employees are always ready to help, bank quickly eliminates errors on reporting, employees do not spend much time waiting in line, the telephonic calls are being received regularly by the bank, bank immediately responds to wrong transaction if any. So this point tells the actual responsiveness situation of the bank.

Empathy: Empathy tells the level of relationship between customers and employee. It shows the feeling of banks towards the customers. it understand the needs of the customer from the employees in the bank. It includes the following bank operating hours suit to my needs, bank is user friendly and accessible, the bank is favorably located to me, the bank always advices me about the most suitable service for my specific needs, the bank always considers my wishes and needs, bank employees are kind and polite in their behavior, bank shows keen interest in each customer.

Tangibility: Tangibility means the physical appearance or things which are provided by the bank. The questionnaire which researcher has prepared includes visually appealing of bank offices, modern looking equipment of bank employees, attractive printing material of the banks, and dress of the bank employees, parking facilities of the banks, security

arrangement of the banks, information that is displayed in the banks, drinking water and washroom facility in the bank, number of counters in banks, connectivity with road are considered tangibles items of the service quality.

Assurance: This dimension relates to the assuredness of the customer that they are providing good services. Assurance includes the courteous behavior of the employee. Assurance have some attribute which are as follows like bank generally informs about the time of service to be performed, bank statements delivered monthly to mail address are clear and understandable, bank employees are trustworthy, bank assure safety to customer money, bank employees are knowledgeable to respond my specific question.

Literature Review

Kumar and Manjunath (2012) Studied customer satisfaction of ICICI bank in Mysore city. Demographic information revealed that 23% customer were young, 59% were male maintain the service quality from time to time. The study revealed that ICICI bank had positive relation with customer.

Jain, Gupta, and Jain (2012) in their study "Customer Perception on Service Quality in Banking Sector: With Special Reference to Indian Private Banks in Moradabad Region" try to learn and understand the customer perception regarding service quality and to learn and understand the different dimension of service quality in banks. The Sample size used is 100 and the sample universe is Moradabad. The service quality model developed by Zeithaml, Parsuraman and Berry (1988) has been used in the present study. The analysis reveals that among the private sector banks all the

dimensions of service quality are equally important.

In the paper by Muyeed (2012), the result shows that banks have imposed service charges and fines too much for which customers are dissatisfied. The customer perceptions are highly satisfied with prompt and accuracy in transactions followed by safety of customer investments and keep confidentiality of account and transactions. The banks need to consider the weak areas in order to meet customer requirement.

Lohani and Shukla (2011) compared services provided by Public and Private sector banks. A structured questionnaire has been prepared for the study. The result shows that services provided by Private sector bank are better than Public sector bank. The researcher suggested that Public sector bank must concentrate on providing updated information to customers regarding the services.

Singh and Khurana (2011) in their research "Analysis of Service Quality Gap and Customers Satisfaction in Private Banks" tried to examine Gender wise customers expectations and perceptions of service quality provided by the Private Banks in Hissar District. Secondly, to identify whether there is difference in expectation & perception of service quality of male & female customers. Lastly, to identify the main attributes of service quality in which male & female (separately) are more satisfied or dissatisfied. The Sample Size is 300 with Sample Universe including Private Banks in Hissar. The Sampling Technique used was Quota Sampling. A questionnaire consisting of 22 items based on SERVQUAL model was administered on the sample. The results indicated that the quality of services private

banks provide was below customers' expectations.

In the study by Santhiyavalli (2011), a sample of 300 respondents has been taken with structured questionnaire having 22 statements. Researcher found that reliability, responsiveness, empathy and tangibility were more responsible for 90% customer satisfaction level.

Ananth, Ramesh and Prabakaran (2010) in their paper "A Service Gap Analysis in Private Sector Banks- an Empirical Study of Customers Expectations vs. Perceptions" evaluate the Quality of Service in selected private sector banks (ICICI & CUB). They also tried to identify the gap between customer expectations and their perceptions. The Sample Universe is CUB and ICICI. The study followed SERVQUAL as a framework and one dimension (accessibility) was added to the previous dimensions to fit into the study. The gap analysis shows that empathy shows a bigger gap between customer expectation and perception of service quality. The multi - regression analysis shows that the dimension Empathy Reliability-Assurance positively influences the banking service quality.

Hasra and Srivastava (2009) in their study indicated that the bank should pay attention to these dimension of service quality and pay more attention to dimension of assurance-empathy to increase loyalty to a company, willingness to pay, customer commitment and customer trust.

Brahmbhatt and Panelia (2008) conducted a their study on "An Assessment of Service Quality in Banks" Foremost aim of this research is to comparatively examine and measure of service quality and customer satisfaction among

private sector, public sector and foreign bank and to offer suggestion based on results of the study. The Sample size was 246 and the Sample universe included Ahmedabad and Gandhinagar. The Sampling Technique used was stratified random. The five dimensions of SERVQUAL as proposed by Parasuraman et al. (1988), Othman and Owen (2001, 2002) and Jabnoun and Al-Tamimi (2003) were adapted and modified in this study. They conclude from the study that Foreign Banks is better than public sector banks and private sector banks.

Choudhury (2007) in his study suggests that customers distinguish four dimensions of service quality in the case of the retail banking industry in India, namely, attitude, competence, tangibles and convenience. Identifying the underlying dimensions of the service quality construct in the Indian retail banking industry is the first step in the definition and hence provision of quality service. The paper has drawn upon the findings of the service quality dimensions to contend the initiatives that bank managers can take to enhance their employees' skills and attitudes and instill a customer-service culture

Scope of the Study

The study encompasses customer service quality of IDBI bank of different departments in tirupati zone. The study covers respondents both customers of banks and bankers. The customers belong to various professions, gender wise, with varied income groups and varied age group.

Objectives

- To identify degree of importance attached to various dimensions of service quality viz.

reliability, responsiveness, empathy, tangibility and assurance by the customers.

- To determine the customers' satisfaction with regard to the service quality dimensions offered by the Private banks
- To make suggestions for improvement of quality of services in private

Hypotheses For The Study

The main hypotheses that have been set for this study are:

H₁: Service quality rating is not independent of variables such as age, gender employment, income, bank in which account is held, type of account and duration on account held.

H₂: There is no significant difference between expectation and perceptions of quality of service for IDBI bank

Methodology

Source of Data

The study relies on both primary as well as secondary data. The source of the secondary data is drawn from Reserve bank of India publications and the sites of the banks to which respondents are customers. Various articles have been referenced for understanding the back ground of the study.

For obtaining primary data, a structured questionnaire is designed to collect data from customers of banks. The questionnaire consisted of three parts. Part A had 22 statements on 5 dimensions to measure the expectations of the customers. Part B consisted of the profile of the customers. Part C had 22 statements on 5 dimensions to measure the perception of the customers of the banks.

The responses for the statements in Part A and C were measured on a Likert scale of SERVQUAL tool.

Sampling Method

The sampling method used in proportionate stratified random sampling. The total sample size is 200. Respondents younger than age 18 were automatically excluded. Personal observations revealed that customers who were age 18 or older visit bank either individually or with their friends groups. No particular attempt was made to apply a random sample or to select particular segments.

The survey instrument was revised, and to strengthen its validity, the questionnaire was circulated to customers in IDBI bank. Based on the feedback received from the pretested sources, the questionnaire was modified. Then, the questionnaire was tested through random sampling consisting of customers (N=25) in the IDBI bank by on-place interviews. The main purpose of the pretest was to validate the questions of the study.

Data Analysis

After sorting out the invalid questionnaires, data were coded, computed and analyzed using the SPSS.20. Statistical analyses such as frequencies, descriptive, multiple regression, and Analysis of Variance (ANOVA), were used according to the respective objectives of the study.

Multiple regression analysis was used to examine customers' service quality with the dimension. The dependent variable (Overall service quality variables) was regressed against each of the factor scores of the independent variables (five service quality dimensions).

The data is analyzed by finding the mean scores of the various service dimensions both for expectation and perceptions. Such mean scores are compared with each other to find the gaps between expectations and perceptions. The service quality mean differences of customers of various types of account holders. Further these gaps are cross tabulated with the profile of consumers. ANOVA has been used to test the hypotheses.

Limitations of the Study

1. The study is limited to the study of expectations and perceptions of customers having an account in IDBI bank.
2. The perceptions and expectations of customers are limited to the time period of the study.
3. The perceptions of the IDBI executives are limited only to the place of study.
4. The study is limited only to customers of the Tirupati branch of IDBI.

Results and discussion

The customers of IDBI bank in its Tirupati branch were sample respondents to the survey. The data has captured customers of 6

departments namely Loan Section, Customer Saving Account, Deposit, Housing Loans, Marketing, and Human Resources (HR) Department. The profiles of the customers are described below.

The following table shows the composition of customers who have responded for the survey.

Out of 200 respondents 69% are male and 35% are female. The age groups of customers who are above age group of 51 & above were considered. The following table shows the distribution of customers across various age groups. 39 % of customers belonged to the age group 51 & above years. The second largest group of 22 % belonged to the age group of 31-40 years is 20.5% customer belonged to the age group of 20 – 30 years and 18.5 belonged to the group of 41 – 50 years.

The following table shows four types of accounts of the respondents 46.0 % respondents are having saving bank account, 29.5% respondents are current account holders, 14% respondents have Loan account and 10.5 % respondents have deposit account. Out of 200 respondents, maximum number of 92 respondents are having saving account and a least number of 21 respondents are having deposits account.

Table 1: Demographic Characteristics of the Respondents
(N= 200)

Sl. No.	Variable	Freq.	Per cent	Sl. No.	Variable	Freq.	Per cent
1	Gender			5	Occupation		
A	Male	122	61	A	Professional	36	18
B	Female	78	39	B	Private Service	24	12
2.	Age(in Yrs)			C	Business/Industrialist	53	26.5
A	20.-30	41	20.5	D	Govt. Servant	19	9.5
B	31 -40	44	22	E	Formers/ Landlords	44	22
C	41 -50	37	18.5	F	Others	24	12
D	51 & above	78	39	6.	Annual income(in Rs)		
3.	Account type			A	Less than 1 lakhs	28	14
A	Saving a/c	92	46.0	B	1 – 2.5 lakhs	47	23.5
B	Current a/c	59	29.5	C	2.51 – 4 lakhs	38	19
C	Deposit a/c	21	10.5	D	4.01 – 5.5lakhs	41	20.5
D	Loan a/c	28	14	E	5.51 – 7 lakhs	29	14.5
4.	Duration of account			F	Above 7 lakhs	17	8.5
A	0 - 2 years	34	17.0				
B	3 –5 years	86	43.0				
C	6- 8 years	51	25.5				
D	Above 8yrs	29	14.5				

Source: Primary data

Duration of account period for which the account was help by the respondents.43 % respondents have an account for 3 – 5 years, 25.5% respondents have their accounts between 6-8 years, 17 % respondents have account below 2 years and 14.5% respondents have account for more than 8 years. Out of 200 respondents a majority of 86 respondents have an account from 3 – 5 years and 29 respondents is the least number and are having an account from above 8 years.

Occupation of the customers who responded for the survey: 26.5% respondents are business/ industrialist, 22% respondents are landlords/ formers, 18% respondents are professionals 12% respondents are others (retired, homemakers, students etc).Out of 200 respondents we found that majority of 53 are

business/industrialist and least number of 24 respondents are others.

The annual income of the customers who responded for the survey: 14% of the respondents have annual income less than 1 lakhs whereas a big no. of 23.5% of the respondents are in the brackets of Rs 1 lakhs to 2.5 lakh, 20.5% of the respondents in the bracket of Rs.4.01- 5.5 lakh, and 8.5% of the respondents have more than Rs. 7 lakhs annual income.

Service quality compared with respondent profiles

The following analysis explains the customer service quality rating across categorical variables such as Gender, age, account type, duration of account, occupation, and annual

income. The tables given below gives the descriptive statistics like mean scores and standard deviations. One way ANOVA has been used to test the hypothesis to establish relationship between the customer service quality rating and the categorical variables. The satisfaction level of customers in respect to service quality was rated higher by female customers as compared with male customers. This is also reflected in the standard deviation the no. of male respondents were more in number and the data dispersion was greater than the data dispersion of the female customers.

The mean scores of service quality rating by customers is more or less the same across all age groups. There is no much difference in the perception of customers of various age groups. However, the satisfaction level of customers in the age group of more than 51 years & above was the highest with the mean scores of 3.83 and the lowest satisfaction was of those customers who belonged to the age group less than 30 years. Further the ANOVA test which was run on the data also shows that there is no

significant relationship between age and the service quality rating of customers.

The above table reveals that higher the duration of the account held by customers higher is the satisfaction. customer service quality is rated high by those customers who have held to account for more than 8 years, whereas, those who have held for 6- 8 years have given a score of 3.55. the ANOVA computation has not revealed any significant relationship between the period of account and customer service quality.

There is considerable variation observed in the ratings given by customers belonging to various occupational groups. Govt. servant who were the least number who responded expressed least satisfaction of the customer service quality of banks. Business class has given a high rating to the quality of banking services. This probably may reflect that banks are serving the business classes better with premium services. The maximum number of respondents was employed and their mean scores of satisfaction of 3.744.

Table 2: Customer service quality rating distributed across demographic variables

Variables	N	Mean	SD		Sig.
Gender					
Male	122	3.499	0.797	t-value= 2.728*	0.007
Female	78	3.623	0.771		
Age					
20.-30	41	3.480	1.04	F-value 5.07	0.000
31 -40	44	3.675	0.78		
41 -50	37	3.679	0.77		
51 & above	78	3.843	0.85		
Type of account					
Saving a/c	92	3.520	0.944	F-value 9.22	0.000
Current a/c	59	3.710	0.811		
Deposit a/c	21	3.760	0.836		
Loan a/c	28	3.810	0.842		

Duration of account					
0 - 2 years	34	3.28	0.640	F-value 11.121	0.000
3 - 5 years	86	3.41	0.624		
6- 8 years	51	3.55	0.619		
Above 8yrs	29	3.71	0.728		
Occupation					
Professional	36	3.611	0.95	F-value 2.200	0.0671
Private Service	24	3.701	0.78		
Business/Industrialist	53	3.744	0.83		
Govt. Servant	19	3.405	1.101		
Formers/ Landlords	44	3.592	0.903		
Others	24	3.661	0.893		
Annual income					
Less than 1 lakhs	28	3.530	0.98	F-value 2.764	0.0273
1 - 2.5 lakhs	47	3.700	0.79		
2.51 - 4 lakhs	38	3.704	0.84		
4.01 - 5.5lakhs	41	3.702	0.85		
5.51 - 7 lakhs	29	3.451	1.08		
Above 7 lakhs	17	3.583	0.88		

A significant observation is that customers with income of 2.51 – 4 lakhs have expressed a vigh high level of satisfaction to the services of bank. Banks probably focus more on the high networth individuals and business classes. Hence the rating is 3.702 on respondents with incomes ofrs. 4.01 – 5.50 lakhs and rs.1 – 2.5 lakhs have a satisfaction score higher than the average mean score. The lowest rating is given by the customers with income less than rs. 1 lakh income. These respondents are 28 in

number, the ANOVA results also show that there is a significant relationship between the service rating and the income of the customers.

The hypothesis to test independence of the service quality rating from categorical variables is as below:

H_0 : service quality rating is not independent of variables such as age gender income occupation, type of account and duration of account.

Table 3: Results of the ANOVA test used to establish relationship of service quality rating with categorical variables

Independent variables.	F-statistic /t-test	p-value	Significant	Acceptance or Rejection of hypothesis
Gender	2.728	0.007	Significant	Rejected
Age	5.07	0.0000	Significant	Rejected
Income	2.764	0.0273	Significant	Rejected.
Occupation	2.200	0.0671	Not significant	Accepted
Type of account	9.22	0.000	Significant	Rejected
Durations of account	11.121	0.000	Significant	Rejected.

From the above table, it is brought out that customer service quality rating varies with categorical variables like age gender, income,

duration of account and type of account. However, customer service quality rating does not vary with occupation only.

Table 4: Results on Paired t-test between Expectations and Perception with Attributes (N= 200)

STATEMENTS	EXPEC TATION		PERCEP TION		Mean difference (E-P)	t-value
	Mean	SD	Mean	SD		
RELIABILITY	17.93		17.69		0.24	
Delivers service at promised time	3.53	0.95	3.49	1.03	0.04	1.398
Interest in solving problem	3.68	0.92	3.59	0.99	0.09	-1.201
Perform service right first time	3.73	0.95	3.77	1.08	-0.04	1.07
Follows the promised time	3.34	0.95	3.22	1.08	0.12	-1.76
Maintain error free records	3.65	1.05	3.62	0.91	0.03	-0.398
RESPONSIVENESS	20.23		19.49		0.74	
Tell you about performance of service	3.96	0.81	3.82	0.92	0.14	2.340*
Gives prompt service	4.07	0.87	3.92	0.8	0.15	3.191*
Willingness to help	3.85	0.95	3.65	0.97	0.2	-3.362*
Not busy to respond queries	4.26	0.84	4.14	0.76	0.12	2.609*
Understand customer's specific Needs	4.09	0.89	3.96	0.83	0.13	2.112*
EMPATHY	14.50		14.72		-0.22	
Gives individual attention	3.71	0.87	3.65	0.91	0.06	-0.503
Convenient operating hours	3.74	0.97	3.86	0.78	-0.12	1.609
Gives personal attention	3.83	0.93	3.86	0.8	-0.03	0.466
Best interest in heart	3.22	0.94	3.35	1.1	-0.13	3.162*

ASSURANCE	15.61		15.08		0.53	
Instills confidence	3.48	0.96	3.33	0.96	0.15	3.699*
Safe transactions	4.23	0.85	4.1	0.85	0.13	2.252*
Employees are consistently Courteous	3.77	0.91	3.63	0.83	0.14	2.067*
Employee have enough Knowledge	4.13	0.91	4.02	0.76	0.11	-1.699
TANGIBILITY	15.09		14.54		0.55	
Modern looking equipment	3.34	0.95	3.22	1.08	0.12	-1.201
Physical facility .	3.95	1.05	3.8	1.03	0.15	2.401*
Employee are well dressed	4.05	1.01	3.88	1.06	0.18	2.222
Materials are visually appealing	3.75	1.02	3.64	1.00	0.11	1.912

Satisfying, indifferent and dissatisfying attributes

The Table 4 above presents 22 service quality dimensional attributes of IDBI bank in Tirupati, Chittoor district of Andhra Pradesh. These attributes are broadly categorized, on the basis of study results, into satisfying, indifferent and dissatisfying attributes.

Satisfying attributes

“Satisfying” attributes are those with perceptual scores, when compared to expectations scores, having positive mean difference with t-values significant at the .05 level. Results indicate that customers were satisfied with “prompt service,” “best interest in heart,” “instills confidence,” “physical facilities,” “safe transactions,” “employees are consistently courteous,” “Employee are well dressed,” “understand customer’s specific needs,” “tell you about performance of service,” and “interest in solving problem.” The respondents’ perceptions with regard to these 10 attributes were positively disconfirmed, which led to their satisfaction with these attributes.

Indifferent Attributes

Indifferent attributes are those attributes with

non-significant t-values ($p > 0.05$), regardless of positive or negative mean differences. Attributes namely “Delivers service at promised time”, “Follows the promised time”, “Maintain error free records,” “Willingness to help”, “Employee have enough Knowledge”, Modern looking equipment and Materials are visually appealing” are indifferent attributes. This showed that respondents’ perceptions were confirmed with their expectations, which resulted in neutral feelings of the respondents.

Dissatisfaction Attributes

Dissatisfying attributes are those attributes with expectation scores outweighing perception scores, that is, with negative mean scores, regardless of a significant or non-significant t-value at the .05 level or below. Results indicate that students were dissatisfied with “Perform service right first time” “Convenient operating hours,” “Gives personal attention,” and “Best interest in heart.” These indicate further that respondents’ perception in relation to those attributes were negatively disconfirmed with their expectations, which resulted in dissatisfaction

Multiple Regression Analysis

In order to further reveal support for service

quality dimensions, the attributes that influenced customer's overall levels of satisfaction, the five orthogonal factors were used in a multiple regression analysis. The multiple regression procedure was employed because it provided the most accurate interpretation of the independent variables. The five independent variables were expressed in terms of the standardized factor scores (beta coefficients). The significant factors that remained in the regression equation were shown in order of importance based on the beta coefficients. The dependent variable, customers' overall level of satisfaction, was measured on a 5-point Likert-type scale and was used as a surrogate indicator of customer's evaluation of the perception in the bank (IDBI).

The equation for students' overall level of satisfaction was expressed in the following equation:

$$Y_C = \hat{a}_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5$$

Where,

Y_C = Overall level of Satisfaction of the customer

\hat{a}_0 = Constant (coefficient of Intercept)

X_1 = Reliability

X_2 = Responsiveness

X_3 = Empathy

X_4 = Assurance

X_5 = Tangibility

$B_1 \dots B_5$ = Regression coefficient of Factor 1 to Factor 5.

Table 5: Regression Results of customers' Overall Satisfaction Level Based on the Dimensions (N= 200)

Dependent Variable (DV): Customer's overall satisfaction

Independent Variable (IV): Five service quality dimensions

Output of simultaneous multiple regression-Model Summary (a)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.294	0.386	0.055	0.63773

Analysis of Variance (b)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.417	5	1.104	2.736	.032*
Residual	46.771	117	.407		
Total	51.188	122			

*significant at 5 per cent level

Output of simultaneous Multiple Regression Coefficients (c)

Independent Variables	B	Std. Error	Beta	T	Sig.
(Constant)	3.510	0.058		60.292	0.000**
Reliability	0.116	0.058	0.177	1.985	0.030*
Responsiveness	0.138	0.058	0.210	2.356	0.020*
Empathy	0.067	0.058	0.102	1.150	0.253 ^w
Assurance	0.013	0.058	0.019	0.218	0.828 ^w
Tangibility	0.118	0.058	0.319	3.421	0.000**

** Significant at $P < 0.005$

Dependent variable, customers' overall satisfaction with bank service quality and Independent variables are five factors. Table 4 showed the results of the regression analysis. To predict the goodness-of-fit of the regression model, the multiple correlation coefficient (R), coefficient of determination (R^2), and F ratio were examined.

First, the R of independent variables (four factors, X_1 to X_4) on the dependent variable (customers' overall level of satisfaction, or Y_c) is 0.294, which showed that the customer had Average and high overall satisfaction levels with the two dimensions factors (Responsiveness & reliability).

Second, the R^2 is 0.386, suggesting that more than 30% of the variation of customers' overall satisfaction was explained by the five factors. Last, the F ratio, which explained whether the results of the regression model could have occurred by chance, had a value of 2.736 ($p=0.032$) and was considered significant at 5 per cent level. The regression model achieved a satisfactory level of goodness predicting the variance of customers' overall satisfaction in relation to the five factors, as measured by the above-mentioned R , R^2 , and F ratio. In other words, at least one of the five factors was important in contributing to customers' overall

level of satisfaction with the IDBI bank service quality dimensions.

In the regression analysis, the beta coefficients could be used to explain the relative importance of the five service quality dimensions (independent variables) in contributing to the variance in customers' overall satisfaction (dependent variable). As far as the relative importance of the five service quality dimensions is concerned, Factor 2 (Responsiveness, $B=0.138$, $p=0.020$) carried the heaviest weight for customers' overall satisfaction, followed by Factor 5 (Tangibility, $B_5=0.118$, $p=0.000$), Factor 1 (Reliability, $B_1=0.116$, $p=0.030$), Factor 3 (Empathy, $B=0.067$, $p=0.253^w$), and Factor 4 (Assurance, $B=0.013$, $p=0.828^w$). Factor 3 and Factor 4 are not significant. The results showed that a one-unit increase in satisfaction with the Hostel facilities factor would lead to a 0.138 unit increase in customers' overall level of satisfaction with IDBI bank facilities, other variables being held constant.

In conclusion, three factors underlying dimension are significant. Thus, the results of multiple regression analysis reject hypothesis 1, that there is no relationship between the selected service quality dimensions attributes and the overall satisfaction of customers. So,

there is a relationship, which is what you expected.

The Fitted model is $Y = 3.510 + 0.116 * F1 + 0.138 * F2 + 0.067 * F3 + 0.013 * F4 + 0.118 * F5$, Where Y is the overall Satisfaction Score.

From the Standardized regression coefficient it can be seen that the highest preferred factor to explain satisfaction is F2 followed by F5, F1, F3 and F4 in that order. Further, all the regression coefficients are found to be statistically significant ($p < 0.005$).

Findings

Findings on service quality rating were compared with the respondents' profile. The satisfaction level of customers in respect to service quality was rated higher by female customers as compared with male customers. The satisfaction level of customers in the age group of more than 51 & above is highest with the mean score and the lowest satisfaction is of those customers who belonged to the age group less than 30 years. There is considerable variation observed in the ratings given by customers belonging to various occupational groups. Other group respondents who were the least number, expressed least satisfaction of the customer service quality of banks. Business class has given a high rating to the quality of banking services. A significant observation is that customers with income more than Rs. 2.5 - 4 lakhs have expressed a very high level of satisfaction in respect to the services of bank. Higher the duration of the account held by customers, higher is the satisfaction. Customer service quality is rated high by those customers who have held the account for more than 8 years whereas those who have held for 4-6 years have given a score of 3.71. The

research findings show a total of 35.8 percent of respondents agree, 28.3 percent strongly agree, 11.7 percent are neutral in their opinions and 19.2 percent disagree. According to the results of this study there is general preference for expectation and perception as the relationship with customers. The study has also shown that customers are largely satisfied with most of the attributes of the Responsiveness. This has certainly opened avenues for more research to be carried out. The bank employees will slowly gain confidence as they have more capacity and time to look for literature that is relevant to their areas of research.

Conclusion

The banks have to reduce this gap giving individual personal attention to understand customer specific needs. The customers trust the private sector banks. These banks have existed in the market for a longer period than the private sector banks.

Banks should also have a strong customer relationship management system that would indicate the worth of the customer and be able to understand his needs while interacting with him, so as to cross sell their products.

To manage growth and continuity in business, human resources play an important role. The new generation private sector skill sets of employees need up gradation so as to make them more comfortable with the latest technology that will increase their comfort level while educating customers to use the same in their day to day dealings.

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AN ASSESSMENT OF PERCEIVED RISK AND DOMINANT RISK RELIEVERS IN CAR PURCHASE

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Abstract :

Perceived risk refers to the ambiguity that arises in the minds of consumer in the process of buying, using or disposing an offering. The perceived risk has to be reduced below the threshold level to convert a probable buyer to a buyer. A risk reliever is an action commenced by the seller or buyer to bring down the perceived risk to an acceptable level so as to enable the purchaser to buy the product. The objective of the study is to find the impact of risk reliever on dimensions of perceived risk and included nine dimensions of perceived risk and seventeen risk relievers. The study involved 373 respondents and was conducted over a ninety day period from August 2014 in Cuddalore district of Tamil Nadu. Respondents who had bought a car within four months of the study alone were considered and their pre-purchase mind set was studied. Canonical correlation test has been applied to find out the influence of risk relievers on the components of perceived risk and it is inferred that physical risk, psychological risk, functional risk, social risk and financial risk were the influential dimensions of perceived risk in purchase of car while the five risk relievers namely test drive, company authorized service, country of origin, brand preference and word of mouth were found to influence the five dimensions of perceived risk. This study is useful to car companies to identify the specific risk relievers that may needed to act upon the precise dimensions of perceived risk.

Keywords: *Perceived Risk, Consumer Behaviour, Automobile Industry, Purchase Decision.*

Introduction

Consumers have a set of lasting impressions that are predominantly relevant to the study of Consumer Behavior. A major factor affecting personal relevance and motivation is perceived risk, the extent to which the consumer is

uncertain about the personal consequences of buying, using or disposing of an offering. If negative outcomes are likely or positive outcomes are unlikely, perceived risk is high. Every purchase carries with it some degree of risk. Bauer (1960) was the first to bring up the idea of perceived risk and observed that

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consumers perceive uncertainty in contemplating a particular purchase intention. The outcome may make consumers unhappy and regretful.

Perceived risk is a function of uncertainty and the consequence of a buying situation. Uncertainty is the consumer's subjective feeling that the consequences of a purchase decision will be unfavorable and consequences mean the amount at stake that would be lost if the act were not successful. Mowen (1995) revealed that the characteristics of the product or service would influence perceived risk and high involvement products were perceived to have a greater degree of risk attached to them. A risk reliever (or risk reducer) is an action commenced by the seller or buyer to bring down the perceived risk to an acceptable level so as to enable the purchaser to buy the product. This paper takes a look at the influence of selected risk relievers on perceived risk concerning car purchase

Review of literature

The dimensions of risk as detailed by Cunningham (1967), Roselius (1971), Jacoby and Kaplan (1972), Peter and Ryan (1976), are as under. Functional risk is defined as the risk that the product will not perform as expected. Physical risk is the risk perceived that the product will be dangerous or harmful to the consumer. Financial risk is the risk perceived that the product will not be worth the money the customer pays. Social risk is the risk perceived that a poor product choice will bruise the consumer's ego. Psychological risk is perceived as the risk that the product will not be consistent with the consumer's self-concept or will not satisfy self-esteem needs. Roselius (1971) identified time risk as the time spent in product search. Decision risk (Lindquist, 2007)

refers to the confusion in the judgment process of the consumer and the fear of a continued expenditure once a purchase has been made. Kidiyoor (2013), Lantos (2011) revealed obsolescence risk as the possibility that the product or its technology getting obsolete over time. Facility risk (Sunitha, Justus and Ramesh, 2015) is the risk that the support facilities needed to utilize the product will not be helpful making the ownership either difficult or costly.

Chu (2008) indicated that when consumers intend to purchase products or services, risks are perceived because of the uncertainty in the shopping environment and when consumers are aware of the seriousness of perceived risks, they look for related risk reduction strategies. Consumers characteristically develop their risk reduction strategies for reducing their perceived risk. These risk reduction strategies enable them to act with increased confidence when making product decisions even though the consequences of such decisions remain somewhat uncertain. Roselius (1971) indicated that a seller should be able to pin point the risk perceived by customer in purchase of product and then proceed to create a set of relievers needed to alleviate the perceived risk. Consumers will engage in risk reduction behavior to increase the certainty of the probable consequences of the purchase decision or reduce the amount at stake (Mitchell and McGoldrick, 1996).

Objective

To find out the impact of risk relievers on factors of perceived risk.

Research Methodology

The perceived risk scale had sixty four questions covering the nine dimensions and developed

on a five point scale with 1 indicating very high, 2 high, 3 moderate, 4 mild and 5 no risk. Respondents who had bought a car within four months of the study alone were considered and their pre-purchase mind set was studied. Simcock et al. (2003) indicated that a recall test with high measures of validity and / or reliability underpin much understanding of consumer behavior. The risk reliever scale was

a five point scale with 1 anchored as high influence and 5 as no influence. The alpha value of 0.90 for perceived risk scale and 0.70 for risk reliever scale was considered sufficient. The study involved 373 respondents and was conducted over a ninety day period from August 2014 in Cuddalore district of Tamil Nadu. Hatchbacks and sedans costing less than 25 lakhs alone were considered for the study.

Analysis and Interpretation

Table 1: Frequency table of dimensions of perceived risk

	Very high risk	High risk	Moderate risk	Mild risk	No risk	Mean	Standard Deviation
Physical risk	62	53	141	90	27	2.58	1.02
Psychological risk	60	46	102	117	48	2.77	1.13
Functional Risk	68	52	94	125	34	2.65	1.13
Social Risk	64	55	83	126	45	2.75	1.19
Financial Risk	31	63	161	94	24	2.66	0.90
Time Risk	45	35	99	156	38	2.93	1.05
Decision Risk	72	57	89	129	26	2.60	1.12
Obsolescence Risk	28	106	104	102	33	2.65	1.07
Facility Risk	40	135	163	33	2	2.16	0.70

Source: Primary data computed

The above table indicates the distribution of the nine dimensions of perceived risk. The mean

value of the dimension of perceived risk varies from 2.16 – 2.93.

Table 2: Distribution of risk relievers

Risk reliever statements	Highly influential	Influential	Moderate influence	Mild influence	No influence	Mean	SD
Consumer satisfaction index	7.5	31.6	1.9	45.6	13.4	3.26	1.24
The sales man assurance	8.0	38.3	2.9	33.2	17.4	3.14	1.31
The test drive offered by the dealer	34.0	38.1	6.2	11.8	9.9	2.25	1.31

Review from Auto magazines	5.9	18.5	9.9	44.8	20.9	3.56	1.18
Looks of the car	12.6	42.1	11.5	13.9	19.8	2.86	1.36
The frequent advertisements	13.7	23.9	10.2	36.2	16.1	3.17	1.33
Opinion leadership	11.5	41.0	1.3	34.0	12.1	2.94	1.30
Company authorized service centre	31.9	34.9	6.7	15.8	10.7	2.39	1.36
country of origin	26.3	31.4	9.9	15.3	17.2	2.66	1.45
extended free service / insurance	4.6	38.1	0.0	41.0	16.4	3.27	1.25
Celebrity emulation	12.6	44.5	1.9	26.3	14.7	2.86	1.34
Brand preference	26.8	36.7	5.1	17.2	14.2	2.55	1.41
Dealer reputation	16.6	36.2	0.3	35.9	11.0	2.88	1.35
Preference to high price edition	9.1	42.1	0.5	34.6	13.7	3.02	1.30
Social observation	12.1	22.3	7.8	44.8	13.1	3.25	1.27
Market tenure	12.3	20.4	2.7	39.4	25.2	3.45	1.38
Word of mouth	25.2	38.9	8.3	12.6	15	2.53	1.38

Source: Primary data compute

The above table indicates the distribution of the seventeen risk relievers taken for the study. The mean value of the statements vary from 2.25 – 3.56 which indicates the role of different risk relievers varies from influential to no influence.

Canonical correlation test has been applied to find out the influence of risk relievers on the

components of perceived risk. Generally canonical correlation consists of three layers.

1. Canonical correlation coefficients
2. Canonical correlation loadings and
3. Redundancy

Table 3 - Multivariate test of significance for the canonical correlation

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	2.127	6.461	153.00	3195.00	.001**
Hotellings	10.824	24.423	153.00	3107.00	.001**
Wilks	0.020	11.508	153.00	2795.26	.001**
Roys	0.893				

From the above table it is seen that the overall model is significant. The significant P value of the three tests namely, Pillais, Hotellings and Wilks infer that there exists a significant relationship between the risk reliever and components of perceived risk. Further Roys

value of 0.893 infer that overall 89 percent of the canonical variate of the risks are explained by the canonical variate of the risk relievers. This value is equal to the first squared canonical correlation

Table 4: Eigen values, canonical correlations and significance level

Characteristic Root No.	Eigen value	Pct.	Cum. Pct.	Canon Cor.	Sq. Cor	P Value
1	8.33577	77.01247	77.01247	.94493	.89289	.001**
2	1.69988	15.70485	92.71732	.79348	.62961	.001**
3	.49529	4.57585	97.29317	.57553	.33123	.001**
4	.11411	1.05427	98.34744	.32004	.10243	.096
5	.06655	.61487	98.96231	.24980	.06240	.562
6	.05874	.54271	99.50502	.23555	.05548	.805
7	.02304	.21283	99.71785	.15006	.02252	.975
8	.02167	.20016	99.91801	.14562	.02121	.950
9	.00887	.08199	100<.001**00	.09379	.00880	.957

The above table showed Eigen values, cumulative percentage, Canonical correlations and squared correlations. From the table it can be observed that out of nine Canonical correlations three are significant at $P < 0.001$ level. Hence the first three Canonical correlations alone were considered for further interpretation. The first Canonical correlation was found to be 0.94 and its square of correlation was found to be 0.89. This indicated that 89% of the dependent Canonical variates were explained by the 'first independent Canonical variate'.

coefficients between the total independent variable set and each variable in the dependent variable set, and then averaging these squared coefficients to arrive at an average R^2 . The redundancy index of a variate is derived by multiplying the two components (shared variance of the variate multiplied by the squared canonical correlation) to find the amount of shared variance that can be explained by each canonical function. To have a high redundancy index, one must have a high canonical correlation and a high degree of shared variance explained by the dependent variate.

The redundancy index is the equivalent of computing the squared multiple correlation

Table 5: Canonical loadings, redundancy and communality coefficient

Variable	F1			F2			Communality Coefficient
	Coefficient	Correlation	Sq Loadings	Coefficient	correlation	Sq Loadings	
Consumer satisfaction index	0.0227	-0.1940	0.0376	0.0443	0.0594	0.0035	0.0411
Sales man assurance	-0.0114	-.0661	.0044	-.1140	-0.1621	0.0262	0.0306
Test drive	-0.1276	-.6923	0.4793	-.4635	-0.5262	0.2769	0.7562
Auto magazine Reviews	-0.0009	-.1498	0.0224	-.0059	0.0339	.0012	0.0236
Looks of the car	-0.0013	-.3733	0.1394	.1439	0.2908	0.0846	0.224
Frequent advertisements	-0.0073	-.1679	0.0282	.0314	-0.0163	.0003	0.0285
Opinion leadership	-0.0080	-.1279	0.0164	-.0667	-0.1467	0.0215	0.0379
Company authorized service	-0.0900	-.6012	0.3614	-.5140	-0.5994	0.3592	0.7206
Country of origin	-0.7210	-.9623	0.9260	.8821	0.2461	0.0605	0.9865
Extended free service	0.0354	-.1313	0.0172	.0461	0.0375	.0014	0.0186
Celebrity emulation	-0.0147	-.0948	.0089	-.0537	-0.0825	.0069	0.0158
Brand preference	-0.1114	-.6728	0.4527	-.2853	-0.2637	0.0695	0.5222
Dealer reputation	0.0238	-.0423	.0018	-.0289	-0.0959	.0092	0.011
High priced edition	0.0041	-.1206	0.0145	.0101	0.0303	.0009	0.0154
Social observation	-.0232	-.2327	0.0541	.0993	0.1519	0.0231	0.0772
Market tenure	-.0460	-.2235	0.0499	.0901	0.1149	0.0132	0.0631
Word of Mouth	-0.1077	-0.7322	0.5361	-0.1677	-0.2905	0.0844	0.6205
Total			3.1503			1.0425	
Average			0.1853			0.06132	
Redundancy index			0.1654			.038607	
Physical risk	.1512	.5546	0.0376	.8228	.6763	0.4574	0.4950
Psychological risk	.1718	.8368	0.7001	.4638	.2253	0.0508	0.7509
Functional risk	.0454	.7700	0.5929	.2323	.1611	0.0259	0.6188
Social risk	.7469	.9756	0.9518	-1.190	-.2018	0.0407	0.9925
Financial risk	.0280	.5575	0.3108	.1209	.2059	0.0423	0.3531
Time risk	-.0326	.2525	0.0638	-.0113	.2057	0.0423	0.1061
Decision risk	.0458	.1157	0.0134	-.0654	.1145	0.0131	0.0265
Obsolescence risk	.0134	.4119	0.1696	.07489	.2547	0.0649	0.2345
Facility risk	-.0225	.4253	0.1809	.1167	.2322	0.0539	0.2348
Total			3.0209			.7913	
Average			0.3357			0.0879	
Redundancy index			0.29974			0.05534	

Based on first canonical loading it is inferred that physical risk, psychological risk, functional risk, social risk and financial risk have correlation value greater than 0.5. Generally loading above 0.5 is considered significant. The redundancy index has been found as 30%. Hence the five risk relievers namely test drive, company authorized service, country of origin, brand preference and word of mouth has been found to influence the five components of perceived risk by 30%. Test drive, company authorized service, country of origin; brand preference and word of mouth are risk relievers that have a loading above 0.5. Hence these relievers have a high influence on the components of perceived risk.

Based on the second canonical loading it is observed that only physical risk is considered as significant. The redundancy index has been influenced to a level of 5 percent by the risk relievers namely test drive and company authorized service.

Based on first communality coefficient it is inferred that physical risk, psychological risk, functional risk and social risk are considered significant. The five risk relievers namely test drive, company authorized service, country of origin, brand preference and word of mouth have been found to influence the four components of perceived risk.

Table 6: Dependent variable: Physical risk

Covariate	B	Beta	Std. Err.	t-Value	Sig. of t
Sales man assurance	-.3241	-.0697	.15764	-2.05571	.041*
Test drive	-2.0791	-.4456	.22239	-9.34891	.001**
Company authorized service	-1.9795	-.4405	.20403	-9.70223	.001**

The major risk relievers that tend to reduce physical risk are sales man assurance, test drive and company authorized service station. From

the above table it can be observed that test drive and sales man assurance have, maximum influence in decreasing physical risk.

Table 7: Dependent variable: psychological risk

Covariate	B	Beta	Std. Err.	t-Value	Sig. of t
Looks of the car	.4634	.0783	.18424	2.51551	.012
Country of origin	-2.0456	-.3278	.25840	-7.91670	.001**
Brand preference	-2.7574	-.4304	.23187	-11.8918	.001**
Word of mouth	-1.4382	-.2203	.25990	-5.53343	.001**

The major risk relievers that tend to reduce psychological risk are looks of the car, country of origin, brand preference and word of mouth. From the above table it can be observed that

country of origin and brand preference have, maximum influence in decreasing psychological risk.

Table 8: Dependent variable: Functional Risk

Covariate	B	Beta	Std. Err.	t-Value	Sig. of t
Looks of the car	1.0523	.1293	.31442	3.34666	.001 **
Country of origin	-3.6163	-.4215	.44099	-8.2003	.001 **
Brand preference	-2.1262	-.2414	.39572	-5.3730	.001 **
Word of mouth	-2.0871	-.2326	.44356	-4.7054	.001 **

The major risk relievers that tend to reduce functional risks are looks of the car, country of origin, brand preference and word of mouth.

From the above table it can be observed that country of origin has a, maximum influence in decreasing functional risk.

Table 9: Dependent variable: social risk

Covariate	B	Beta	Std. Err.	t-Value	Sig. of t
Test drive	-.3937	-.0619	.17465	-2.25403	.025 *
Country of origin	-4.6699	-.8125	.16329	-28.5989	.001 **
Social observation	-.2711	-.0415	.12807	-2.11645	.035 *
Market tenure	-.3134	-.0520	.12057	-2.59898	.010 **
Word of mouth	-.3651	-.0607	.16424	-2.22303	.027 *

The major risk relievers that tend to reduce social risk are test drive, country of origin, brand preference, social observation, market tenure

and word of mouth. From the above table it can be observed that country of origin has maximum influence in decreasing social risk.

Table 10: Dependent variable: financial risk

Covariate	B	Beta	Std. Err.	t-Value	Sig. of t
Frequent advertisements	-.5502	-.1369	.20957	=2.6252	.009
Company authorized service	-.5705	-.1449	.27288	-2.0905	.037

The major risk relievers that tend to reduce financial risk are frequent advertisements and company authorized service. From the above table it can be observed that frequent advertisements and company authorized service has an equal role in influencing financial risk.

Conclusion

The study has ascertained the particular risk reliever that is effective for a certain dimension of perceived risk. This should help the

manufacturers to make use of the needed risk reducers to decrease the perceived risk of the customer. A consumer can be made to buy a car only when the perceived risk is reduced below a threshold level that differentiated the probable buyer from an actual buyer. Further studies can be considered across different geographical segments as also across luxury cars and sports utility vehicles which were not considered for this study.

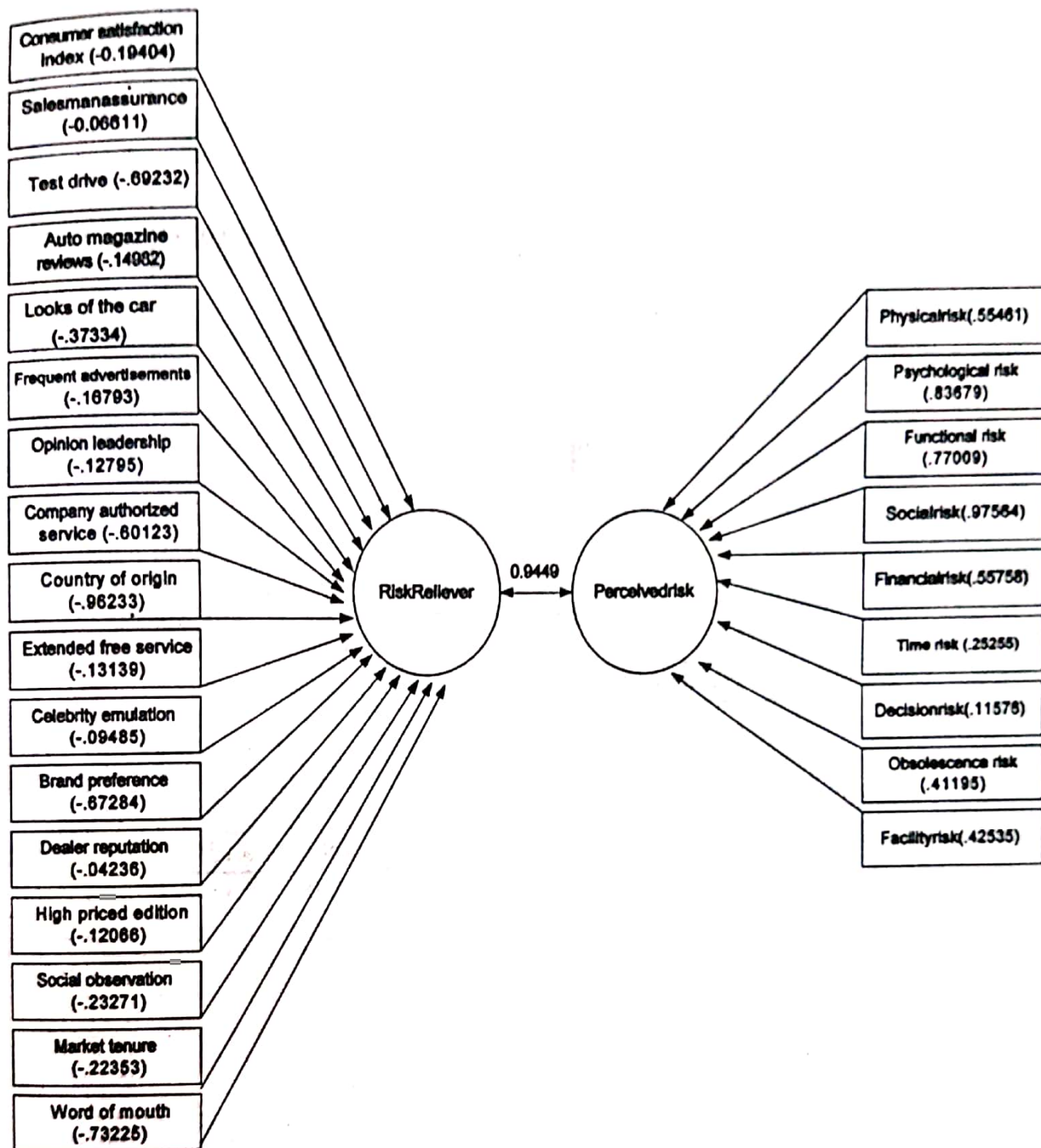


Fig. 4.1: Schematic representation of the first canonical correlation

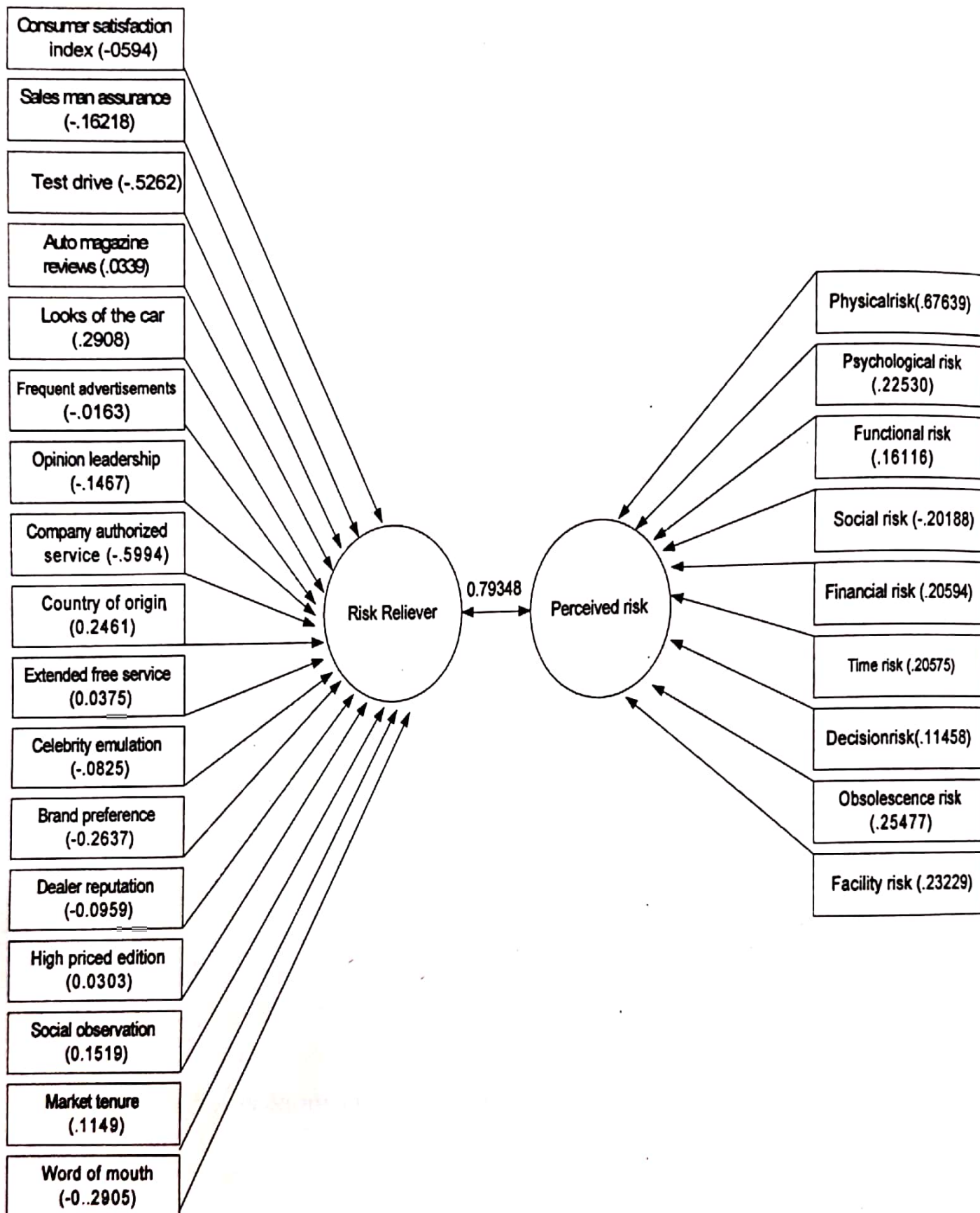


Fig. 4.2: Schematic representation of the second canonical correlation

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Perceived risk Questionnaire

PERCEIVED RISK SCALE

S. No.	Perceived risk	Very high risk	High risk	Moderate risk	Mild risk	No risk
1.	I am not sure about the lighting system in the car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I am doubtful if I can get a good after sales service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	I am not sure about the mileage that my car can give	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I have a doubt if the car performance will be satisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	My car will not satiate my thirst for high speed driving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I am not sure that local technician can handle this technologically superior car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	I feel that this car does not have Functional option like airbags	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I fear I am buying a model which has a poor rear visibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I am doubtful this vehicle does not have a road grip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	I am doubtful of back seat comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	I am afraid that my car can be stolen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	I am doubtful if the air conditioning system in the car can hold good in these days of global warming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

S. No	Perceived risk	Veryhigh risk				
		High risk	Moderate risk	Mild risk	No risk	
13.	I am afraid that I am buyinga expensive car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	I am afraid I will have to pay a higher EMI for buying this car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	I am afraid if the price of car is within my budget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	I am not sure if the car is maintenance free	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	I am confused if the car is worth the money I spend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	I am not sure if there is a car loan that can help me from the hassle of wasting my time in loans elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	I am afraid if my social standing will get decreased after buying this car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	I am afraid if the shape of my car will add my social status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.	I m not sure if I get a sense of more importance among my friends after I own the car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	I am afraid the car can embarrass me by having starting problem where I may need the help of others to push my car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	I am confused if the car is liked by all members of the family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.	I fear the audio system in my car may look substandard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	I may not be able to traverse ghat roads in this car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

S. No.	Perceived risk	Veryhigh risk	High risk	Moderate risk	Mild risk	No risk
26.	I am afraid that I will make a poor choice of a car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27.	I am buying a car that is entering the market for the first time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.	I am not sure if my friends will complement me for my decision to purchase this car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.	I am afraid if the colour of my car is pleasing to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.	I am worried about the waiting time to get my car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31.	I believe I wasted a lot of time in searching the car of my choice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32.	I am worried I can easily find a buyer when I want to dispose my car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.	I believe it will take a long time for me learn to drive a car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.	I am not sure if I need to spend my time in search of service mechanic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.	I am afraid if the car loan procedure will consume a huge amount of time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36.	I am apologetic I have chosen acar devoid of blue tooth and other apps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37.	I am worried I am settling for a car that does not have ABS (Anti lock brakingsystem)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38.	I am unsure about the performance of my car after 3 – 4 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

S. No.	Perceived risk	Perceived risk				
		Veryhigh risk	High risk	Moderate risk	Mild risk	No risk
39.	I am afraid the cost of spares for this car can be expensive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40.	I am worried the manufacturer will stop this model at any time and may launch a newer model making my car obsolete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41.	I am afraid I may not have the time to clean / cover the car properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42.	I am afraid of my decision to buy a car as I can invest that amount in some immovable properties (Opportunity cost)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43.	I am not sure about the engine pick up/ performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.	I am afraid that I go for a car because of the loyalty / exchange bonus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45.	I am afraid I am selecting the based on the reputation of the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46.	I am afraid the price of the car will come down after I buy the car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47.	I am afraid if my car has a larger boot space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48.	I am afraid if my car provides me with fully equipped in - cabin experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49.	I am afraid if I can have nationwide service outlets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50.	I am afraid if my car would provide a great driving experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

S. No.	Perceived risk	Veryhigh risk	High risk	Moderate risk	Mild risk	No risk
51.	I fear that my car will soon become outdated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52.	I fear when new models are launched there will be shortage of spares	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53.	I fear the vehicle will lose its resale value after launch of new models	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54.	I fear when new technology comes in there will be shortage of personnel to repair this car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55.	I have a fear of driving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56.	I am afraid if I can drive the car without making any scratches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57.	I fear the local mechanics can misguide me in my selection of car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58.	I fear the various suggestions that I read in news papers are biased	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59.	I fear I am bombarded with advertisements that can misguide me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
60.	I am afraid the roads are too congested for me to easily navigate the cars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61.	I am doubtful if I can find a parking place when I take the car for shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62.	I am finding it hard to get a good protected parking slot for my car at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63.	I am worried if someone can damage the exteriors of my car when it is parked in my work spot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64.	I am disturbed at the frequent speed breakers that I maneuver on my daily usage roads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II. Risk Reliever Scale

S. No.	Risk Reliever	Highly influential	Influ.	Moderate Influ.	Mild Influ.	No Influ.
1.	Consumer satisfaction index	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	The sales man assurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	The test drive that was offered by the dealer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Review that I read from Auto magazines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Looks of the car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	The frequent advertisements that I saw in television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	The recommendation of motor mechanic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	The availability of company authorized Sales / service stations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	The chosen car manufacturers' country of origin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	The announcement of extended free service / price reduction / insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Celebrity emulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Brand preference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Dealer reputation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Prefer the highest price edition of the selected model of car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	Social observation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	Market tenure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	Word of mouth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



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