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- for a better tomorrow

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Editorial

A TRIBUTE TO RATAN TATA

Ratan Tata, a corporate icon, turned 75 on Friday, 28th December 2012 and retired as Chairman of India's largest industrial house abiding by the rule made by him. He passed on the baton to 44-year-old Cyrus Mistry. It marked the end of an era in the history of Tata Group. He left behind a \$100-billion empire to his successor. As Chairman of the Tata Group he established a legacy that earned him a wide praise as an able corporate leader with values.

Coming to his career, Tata did join the Group as an apprentice on the shop floor of Tata Steel's Jamshedpur plant in 1962. After serving the group in different positions and in different companies, he was appointed as Director-in-Charge of the National Radio and Electronics Company in 1971. Ten years later, he was named Chairman of Tata Industries; the group's other promoter holding company. He became the Chairman of its holding company Tata Sons in 1991.

In more than two decades at the helm Ratan Tata, not only consolidated the group's business in the domestic markets but also expanded it globally, acquiring assets, diversifying businesses and forging new linkages. He helped the Group in attaining the global heights and showed how to do business in an ethical way. He proved himself as a true Indian corporate leader.

During Tata's tenure, the group's revenues grew manifold, totalling USD 100.09 billion (around Rs 475,721 crore) in 2011-12 from a turnover of a mere Rs 10,000 crore in 1991. Tata Group's market capitalisation, which has some 30-odd listed companies, is now nearly Rs.4.54 trillion (\$825 billion), 33 times more than in 1991 when Tata took over the top job. During this period, the group's aggregate sales have increased 43 times, while net profit has grown 51 times. Today 58 percent of the revenue comes from overseas operations. Their brand has emerged as the 45th global and the number one Indian brand. At present TATA products and services are present in 85 countries. The group employs over 4,50,000 people worldwide.

Tata Group's global expansion started in 2000 with the acquisition of Britain's largest tea firm, Tetley for USD 450 million. Since then Tata Group has made several big-ticket global acquisitions, including the purchase of Anglo-Dutch steel maker Corus Group for \$12 billion in 2007. Another big acquisition was of iconic British auto makers Jaguar and Land Rover by Tata Motors. Other acquisitions include acquisition of controlling stake in government-run Videsh Sanchar Nigam Ltd (VSNL), purchase of heavy vehicles unit of Daewoo Motors, acquisition of Singapore's NatSteel and purchase of New York-based The Pierre hotel.

Under the leadership of Ratan Tata, the group made great strides when it capitalised on the sunrise industry of information technology in the 90s. With revenues of over USD 10 billion in 2011-12, Tata Consultancy Services (TCS) is today India's largest IT company, ahead of giants in the field like Infosys and Wipro.

Not limiting himself to big-ticket acquisitions, Tata also displayed sensitivity to the needs of the burgeoning middle class with the launch of 'Nano'. The small car is to be remembered as Tata's desire to provide a safer option to many Indian lower-middle class families riding two-wheelers. His decision to establish Nano plant at Singur showed his interest in developing industrially backward areas. The corporate social responsibility, which he exhibited towards the victims/sufferers of 26/11 Mumbai incident was exemplary.

He masterminded not only the acquisitions, expansions and entries into new areas but also planned the exit of the Group from sectors like cement, textiles and cosmetics, which proved to be poor strategic fits. He knows well when to enter a new business and when to exit from an existing one.

Ratan Tata is also on the board of various global companies like Fiat SpA and Alcoa. He is on the advisory panels of Mitsubishi Corp, the American International Group, Rolls Royce and Temasek Holdings etc. He is also a member of the Indian Prime Minister's Council on Trade and Industry. In 2008, the Government of India honoured him with its second-highest civilian award, the Padma Vibhushan.

Ratan Tata is known for his simplicity, commitment, dedication, values and vision. Future generations have to imbibe his philosophy, emulate his value system and learn how to run a business on ethical lines. On the eve of his retirement as Chairman of Tata Group we would like to pay our respectful tributes to the ideal Indian Corporate Leader, a Visionary, Padma Vibhushan Ratan Tata.

Chief Editor

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EMPIRICAL EVIDENCE OF WORK LIFE BALANCE IN BAKING SECTOR

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Abstract: Work/life balance, in its broadest sense, is defined as a satisfactory level of involvement or 'fit' between the multiple roles in a person's life. Although definitions and explanations vary, work/life balance is generally associated with equilibrium, or maintaining an overall sense of harmony in life. The study of work/life balance involves the examination of people's ability to manage simultaneously the multi-faceted demands of life. Although work/life balance has traditionally been assumed to involve the devotion of equal amounts of time to paid work and non-work roles, more recently the concept has been recognized as more complex and has been developed to incorporate additional components. The present research paper aims at endeavoring the empirical evidence of work life balance concerning employees of public sector and private sector banks. For the purpose of comparative analysis, two banks are chosen purposely each from public and private sector. These are Andhra Bank and Indus Ind Bank. About 50 employees belonging to managerial cadre from each bank are chosen at random. Therefore, sample constitutes 100 employees. The opinions are elicited from them through administering pre-structured questionnaire. The information so gathered is tabulated, analysed and interpreted. The banks shall formulate ideal policies for effective work life balance. The abnormal working hours shall be reduced so as to manage the stress due to work pressure. Health checkup plans shall be introduced so that the morale of the employees is improving in the case of private sector banks. Customization of work life balance policy to individual needs is a pre requisite. Job sharing and support from colleagues are key factors to good work life balance for success of the Indian banking sector.

Key words: Work life balance, family-friendly policies (FFPs), work-life benefits and practices (WLBP)

Introduction

Work-life balance has become an increasingly invasive concern for employers as well as employees in the present day context. Demographic changes as seen in the increasing number of women in the workplace and dual career families have generated an increasingly diverse workforce and a greater need of employees to balance their work and non-work lives (Bharat, 2003; Rajadhyaksha & Bhatnagar, 2000; Sekharan, 1992). In response to these changes, employers have introduced innovative practices that allow employees to find greater work-life balance (Friedman, Christensen, & DeGroot, 1998). Increasing attrition rates and increasing demand for work-life balance have

forced organisations to look beyond run of the great HR initiatives such as flexible working hours, alternative work arrangements, leave policies and benefits in lieu of family care responsibilities and employee assistance programmes have become a significant part of most of the company benefit programmes and compensation packages. Such policies, practices and benefit programmes are generally referred as 'family-friendly policies' (FFPs) or 'work-life benefits and practices' (WLBP) in literature (Kopelman et al., 2006; Kossek & Ozeki, 1998). The significance and implications of such HR interventions are many. For instance provision of WLBP also contributes to organisational performance and effectiveness (Sands & Harper, 2007).



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Though, work-life balance as a concept has got considerable attention and as a campaign has been practiced by various organisations as a matter of policy and strategy, still we are not sure of what constitutes WLBP. Some organisations provide a bundle of policies and programmes such as alternative work arrangements, leave policies, child-care centers, gymnasiums and recreation facilities at work in the name of WLBP. Since employee work-life balance as a concept has got recognition from employers and HR managers in India only in recent years, the organizational initiatives in this regard are hardly known.

The Concept

Work-life balance (WLB) is a broad concept denoting the balance between the professional life and personal life of an earning person and includes proper prioritizing between “work” (career and engagements) on one hand and “life” (pleasure, leisure, family and spiritual development) on the other. Other terms for this concept often used are “lifestyle balance” and “life balance” (Wikipedia). The expression was first used in UK in the late 1970s to describe the balance between an individual’s work and personal life. In the United States, this phrase was first used in 1986.

It is pertinent to note that Work-Life Balance does not mean an equal balance as it varies overtime. The right balance for one when he / she is single, will be different when one marries, when one begets children, when one starts a new career and when one is nearing retirement. The best work-life balance is different for individuals because they have different priorities, different objectives

and, of course, different partners and family members hailing from distinct socioeconomic backgrounds.

Work/life balance, in its broadest sense, is defined as a satisfactory level of involvement or ‘fit’ between the multiple roles in a person’s life. Although definitions and explanations vary, work/life balance is generally associated with equilibrium, or maintaining an overall sense of harmony in life. The study of work/life balance involves the examination of people’s ability to manage simultaneously the multi-faceted demands of life. Although work/life balance has traditionally been assumed to involve the devotion of equal amounts of time to paid work and non-work roles, more recently the concept has been recognized as more complex and has been developed to incorporate additional components.

Aim of the paper

The present research paper aims at endeavoring the empirical evidence of work life balance concerning employees of public sector and private sector banks.

Empirical analysis

For the purpose of comparative analysis, two banks are chosen purposely each from public and private sector. These are Andhra Bank and Indus Ind Bank. About 50 employees belonging to managerial cadre from each bank are chosen at random. Therefore, sample constitutes 100 employees. The opinions are elicited from them through administering pre-structured questionnaire. The information so gathered is tabulated, analyzed and interpreted.

Table: 1
Normal Working Days in a Week

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Less than 5 days	0	0	0	0	0 (0.0)	0 (0.0)
5 days	0	0	0	0	0 (0.0)	0 (0.0)
6 days	35	15	35	15	50 (100)	50 (100)
7 days	0	0	0	0	0 (0.0)	0 (0.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 1 shows the normal working days in week in select banks, for this purpose the frequency is distributed less than 5 days not 7 days. The opinions are elicited from both men

and women respondents. It is observed that normal working days in a week usually be 6 days. It may be noted that in both the private and public sector banks working days are uniform.

Table: 2
Normal Effective Working Hours in a Day

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
7-8 hours	0	0	0	0	0 (0.0)	0 (0.0)
8-9 hours	24	9	18	8	33 (66)	26 (52)
9-10 hours	7	4	11	4	11 (22)	15 (30)
more than 10 hours	4	2	6	3	6 (12)	9 (24)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 2 shows normal effective working hours in a day. It is evident from the table that majority of employees (66 per cent) in public sector bank are working about 8 to 9 hours. But in private sector bank many of the employees prefer to work about 9 to 10 hours (30 per cent)

and, more than 10 hours (24 per cent). Majority of women employees would like to work in normal working hours (8 to 9 hours). It may be observed that higher cadre employees have to work more than 10 hours due to work pressure in both the sectors.

Table: 3
Marital Status

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Yes	31	15	26	12	46 (92)	38 (76)
No	4	0	9	3	4 (8)	12 (24)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Marital status is presented in table 3. It is evident from Table – 3 that majority of employees of Andhra bank were married (92 per cent) while (76 per cent) in the case of Indus Ind bank. In

between gender, male employees are more in number of marital status in both the banks when compared to female employees.

Table: 4
Person Responsible to Take Care of Children in the Family

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Spouse	16	3	11	0	19 (41.3)	11 (28.9)
In-Law	10	3	6	3	13 (28.3)	9 (23.7)
Parents	3	8	8	9	11 (23.9)	17 (44.7)
Servants	2	1	1	0	3 (6.5)	1 (2.7)
Creche/day care Centre	0	0	0	0	0 (0.0)	0 (0.0)
Total	31	15	26	12	46 (100)	38 (100)

Source: Primary Data

Table 4 shows person responsible to take care of children in the family. The categories include spouse, in law, parents, servants and Day care centers. It is obvious that spouse occupies prime place in taking the care for children in the case of Andhra Bank followed by in laws and parents. In the case of private sector banks parents

assume more responsibility in caring the children followed by spouse and in laws. Servants' role is very meager in both the sectors whilst the role of day care centre is completely nonexistent. On the whole it may be observed that the responsibility of children is a usual practice for parents and in-laws of employees.

Table: 4.1
Hours Spending With Children in a Day

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Less than 2 hours	3	1	6	1	4 (8.0)	7 (14.0)
2-3 hours	28	12	20	12	40 (80.0)	32 (64.0)
3-4 hours	4	2	9	2	6 (12.0)	11 (22.0)
4-5 hours	0	0	0	0	0 (0.0)	0 (0.0)
more than 5 hours	0	0	0	0	0 (0.0)	0 (0.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 4.1 shows hours spending with children in a day. It is clear that majority of the employees in both the banks are spending only 2 to 3 hours with their children's. Even some of the

employees are fall in less than 2 hours. Another 22 per cent in case of private sector and 12% in case of public sector are spending 3 to 4 hours with their children.

Table: 5
Ability of Employees for Balancing of Work Life

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Yes	35	15	33	14	50 (100)	47 (94.0)
No	0	0	0	3	0	3 (6.0)
Total	35	15	33	14	50 (100)	50 (100)

Source: Primary Data

Ability of employees for balancing of work life is depicted in Table 5. It is gratifying to note that cent percent of employees in the case of Andhra bank and 95 per cent of employees in

the case of private bank have ability for balancing work life. It may be observed that it is good sign for the organization. Moreover, it gives strong feeling to the organization that they have appointed right people and thereby a strength.

Table: 6
Thinking often about Work other than Working Hours

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Never think	0	0	0	0	0 (0.0)	0 (0.0)
Rarely	22	10	11	4	32 (64.0)	15 (30.0)
Some times	13	5	18	9	18 (36.0)	27 (54.0)
Often	0	0	0	0	0 (0.0)	0 (0.0)
Always	0	0	6	2	0 (0.0)	0 (0.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 6 shows thinking often about work other than working hours. For this purpose, 5 factors are considered these include never think, rarely, sometimes, often and always. It is apparent that 64 per cent of the employees in the case of Andhra Bank rarely think while 30 per cent of employees in the case of Indus Ind Bank. About 36 per cent of employees in Andhra bank think sometimes about the organization, whereas 54 per cent of employees in the case of Indus Ind

bank. But surprisingly 16 per cent of employees of Private sector bank always think about work other than working hours. It is stunning to note that no employee of public sector bank is found in this scale. It is peculiar to note that never think and often are not registered in both the banks. It may be concluded that the employees who have more interest in organization development are thinking about work other than working hours also.

Table: 7
Feelings towards Time Spent at Work

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Very un happy	0	0	0	0	0 (0.0)	0 (0.0)
Un happy	0	0	2	0	0 (0.0)	2 (4.0)
Indiferrent	0	0	4	1	0 (0.0)	5 (10.0)
Happy	23	12	24	10	35 (70.0)	34 (68.0)
Very happy	12	3	5	4	15 (30.0)	9 (18.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 7 shows feeling towards time spent at work. It is evident that almost equal number of employees of both the banks represent 70 per cent and 68 per cent in select banks was happy towards time spent at work. About 30 per cent of employees of Andhra bank are very happy while 18% in the

case of Indus Ind bank. Very less number of employees are indifferent and unhappy in the case of private sector. It may be inferred that majority of both male and female employees of both the banks are feeling well towards time spent at work. This is welcoming future for both the banks.

Table: 8
Missing Time with Family and Friends Due to Pressure of Work

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Never	0	0	0	0	0 (0.0)	0 (0.0)
Rarley	5	1	9	3	6 (12.0)	12 (24.0)
Some times	22	10	6	2	32 (64.0)	8 (16.0)
Often	8	4	20	10	12 (24.0)	30 (60.0)
Always	0	0	0	0	0 (0.0)	0 (0.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 8 depicts the missing time with family and friends due to pressure of work. This can be assessed through five point scale which includes never, rarely, sometimes, often and always. It is evident that majority of the employees belonging to Andhra Bank (64 per cent) are missing sometimes while often in the case of private sector

bank. About (24.0 per cent) of employees are missing the quality time with family and friends due to pressure of work. It may be noted that never and always scales registered at zero per cent. It may be observed that missing time is more pronounced in the case of public sector bank when compared to private sector bank.

Table: 9
Feeling Unrest or Depressed Due to Work

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Never	9	1	6	1	10 (20.0)	7 (14.0)
Rarley	12	6	9	2	18 (36.0)	11 (22.0)
Some times	13	7	15	7	20 (40.0)	22 (44.0)
Often	1	1	4	4	2 (4.0)	8 (16.0)
Always	0	1	4	4	2 (0.0)	2 (4.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Feeling unrest or depressed due to work is shown in Table 9. The scale resembles the preceding table. It is obvious that 20.0 per cent of the employees never felt unrest due to work in Andhra Bank whereas 14.0 per cent of employees in the case of Indus bank. Majority of the employees have no feeling of unrest or depressed

due to work in both the banks representing 40.0 per cent in Andhra Bank and 44.0 per cent in Indus bank. About 20.0 per cent of employees never felt unrest due to work in Andhra Bank whilst about 14.0 per cent of employees in the case of private sector bank. It may be observed that work pressure has no impact on employees' feelings.

Table: 10
Managing Stress Due to Work Pressure

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Yoga/Meditation	6	3	11	4	9 (18.0)	15 (30.0)
Entertainment	0	0	0	0	0 (0.0)	0 (0.0)
Dance	0	0	0	0	0 (0.0)	0 (0.0)
Music	24	10	20	9	34 (68.0)	29 (58.0)
Others	5	2	4	2	7 (14.0)	6 (12.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 10 provides statistical information regarding managing stress due to work pressure. The parameters include Yoga/Meditation, entertainment, dance, music and others. It is evident that the majority of the employees of Andhra Bank (68.0 Per cent) manage stress with music whilst 58.0 per cent of employees in the case of private sector bank. It is

peculiar to note that about 30.0 per cent of private bank employees manage stress due to work pressure through Yoga/Meditation while 18.0 per cent of employees in the case of Andhra Bank. It may be inferred that music is the main means for managing stress followed by Yoga/Meditation.

Table: 11
Separate Policy for Work Life Balance

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Yes	11	5	10	4	16 (32.0)	14 (28.0)
No	24	10	25	11	34 (68.0)	36 (72.0)
Total	35	15	35	15	50 (100)	50 (100)

Table 11 shows separate policy for work life balance. It is obvious that majority of the employees of both the banks (68.0 per cent and 72.0 per cent) have expressed that the banks have not made any separate policy for work life balance of the employees. The low percentage of employees did not agree with the statement. The

employees have expressed differently their opinions regarding the provisions of policy of work life balance. These include flexible starting time, flexible ending time, flexible hours, job sharing and holiday/paid time off. It is understood that both the sectoral banks have not tried to formulate a separate policy concerning work life balance.

Table: 12
Provisions Helpful for Good Work Life Balance

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Flexible Startin time	11	5	5	2	16 (32.0)	7 (14.0)
Flexible Ending Time	5	5	14	6	10 (20.0)	20 (40.0)
Flexible hours	0	0	0	0	0 (0.0)	0 (0.0)
Job sharing	12	4	7	3	16 (32.0)	10 (20.0)
Holiday/Paid time off	5	0	7	3	5 (10.0)	10 (20.0)
Others	2	1	2	1	3 (6.0)	3 (6.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 12 provides the information regarding the provisions helpful good work life balance. Majority of the employees of Andhra Bank (32.0 per cent each) have opined a flexible starting time and job sharing are helpful for good work life balance. Majority employees of Indus bank (40.0 per cent) opined that flexible working time is more helpful for good work life balance. The flexible

hours as a provision are not accepted by the employees of both the banks. Job sharing and paid time off are also helpful for good work life balance, representing 20 per cent of employees each in the case of Indus bank. It may be observed that flexible starting time, flexible ending time and job sharing are proactive provisions which promote good work life balance.

Table: 13
Determinants of Work Life Balance and Family Commitments

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Working from home	0	0	4	1	0 (0.0)	5 (10.0)
Technology	5	0	3	2	5 (10.0)	5 (10.0)
Bring children to work from collagus	0	2	0	2	2 (4.0)	2 (4.0)
Support from Colleagues	28	12	28	10	40 (80.0)	38 (76.0)
Support from family members	2	1	0	0	3 (9.0)	0 (0.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Determinants of work life balance and family commitments are shown in Table 13. The factors include working from home, technology bring children to work place on occasion, supports from family members. It is obvious that majority of employees of Andhra Bank (80.0 per cent) opinioned that support from colleagues is the major factor for work life balance and family commitment, while 76 per cent of the employees

have expressed the same opinion. Working from home is not a influential factor in Andhra Bank, whereas support from family members in the case of Indus Bank. Equal number of employees has expressed their opinions concerning technology and being children to the work place on the occasion. It may be noted that support from colleagues is the major determinant of work life balance and family commitments.

Table: 14
Spending Time for Working Outs

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Yes	12	9	14	10	21 (42.0)	24 (48.0)
No	23	6	21	5	29 (58.0)	26 (52.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Spending time for working outs is shown in the table 14. It is evident that more than 50 per cent of the employees did not spend their time for working outs the rest of the employees for both the banks have spent for working outs representing 42.0 per cent and 48.0 per cent in Andhra Bank and Indus bank respectively.

Hours spent for working outs are depicted in table 14.1. It is obvious that majority of the employees did spend their time for working outs for 30 minutes duration. It is clear that none of the employees of both the banks did never spend their working out time more than 60 minutes. The rest of the employees of the banks working time lie in

Table: 14.1
Hours Spent for Working Outs

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Less than 30 min.	3	0	4	1	3 (14.3)	5 (20.8)
30 min.	7	6	7	7	13 (61.9)	14 (58.4)
30 min- 60 min.	2	3	3	2	5 (23.8)	5 (20.8)
more than 60 min.	0	0	0	0	0 (0.0)	0 (0.0)
Total	12	9	14	10	21 (100)	24 (100)

Source: Primary Data

between less than 30 minutes and in the range of 30 – 60 minutes. Majority of the employees of both the banks have expressed that the place for working outs their time is residence. It may be concluded that the employees of the banks did not spent their time more than 60 minutes for their working outs. It is a welcoming future for turning out higher productivity.

Table 15 shows customization of work life balance to individual needs. It is evident that majority of the employees of Andhra Bank (68

per cent) are indifferent towards customization of work life balance to individual needs. About 58 per cent of employees of Indus Bank have agreed that the customization of work life balance is essential to individual needs, while about 26 per cent of employees in the case of Andhra Bank. About 28 per cent of employees of Indus Bank have strongly agreed with statement while a meager percent of employees (6.0 per cent) of Andhra Bank. The opinions are not fall in the scale of disagree and strongly disagree.

Table: 15
Customization of Work Life Balance to Individual Needs

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Strongley agree	3	0	11	3	3 (6.0)	14 (28.0)
Agree	10	3	20	9	13 (26.0)	29 (58.0)
Indifferent	22	12	4	3	34 (68.0)	7 (14.0)
Disagree	0	0	0	0	0 (0.0)	0 (0.0)
Strongly Disagree	0	0	0	0	0 (0.0)	0 (0.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

It may be observed that there exist obvious distinction in the attitude of employees of public sector bank and private sector bank with regard to customization of work life balance to individual needs.

Table: 16
Opinions on Good Work Life Balance

Questions	Andhra Bank		Indus Ind Bank		Total	
	Men	Women	Men	Women	Andhra Bank	Indus Ind Bank
Yes	35	15	35	15	50 (100.0)	50 (100.0)
No	0	0	0	0	0 (0.0)	0 (0.0)
Total	35	15	35	15	50 (100)	50 (100)

Source: Primary Data

Table 16 provides opinions on good work life balance. It is obvious that all the employees of both the banks have positive outlook that the good work life balance leads to efficacy of the organization and thereby organizational success.

Concluding Remarks

Normal working days in a week usually are six days. Both the private and public sector banks working days are uniform. Higher cadre employees have to work more than 10 hours due to work pressure in both the sectors. Majority of employees of Andhra bank were married (92 per cent) while (76 per cent) in the case of Indus Ind bank. In between gender, male employees are more in number of marital status in both the banks when compared to female employees. On the whole, the responsibility of children is a usual practice for parents and in-laws in the case of women employees. Spouse takes the responsibility in the case of men employees by and large. It is gratifying to note that cent percent of employees in the case of Andhra bank and 95 per cent of employees in the case of private bank have ability for balancing work life. Moreover, it gives strong feeling to the organization that they have appointed right people and thereby a strength. The employees who have more interest in organization development are thinking about work other than working hours. Majority of both male and female employees of both the banks are feeling well towards time spent at work. This is welcoming future for both the banks. Missing time is more

pronounced in the case of public sector bank when compared to private sector bank. Work pressure has no impact on employees' feelings. Music is the main means for managing stress followed by Yoga/Meditation. Both the sectoral banks have not tried to formulate a separate policy concerning work life balance. Flexible starting time, flexible ending time and job sharing are attractive provisions which promote good work life balance. Support from colleagues is the major determinant of work life balance and family commitments. The employees of the banks did not spend their time more than 60 minutes for their working outs. It is a good sign for turning out higher productivity. There exist obvious distinction in the attitude of employees of public sector bank and private sector bank with regard to customization of work life balance to individual needs. All the employees of both the banks have positive outlook that the good work life balance leads to efficacy of the organization and thereby organizational success.

The banks shall formulate ideal policies for effective work life balance. The abnormal working hours shall be reduced so as to manage the stress due to work pressure. Health checkup plans shall be introduced so that the morale of the employees is improved in the case of private sector banks. Customization of work life balance policy to individual needs is a pre requisite. Job sharing and support from colleagues are key factors to good work life balance for success of the Indian banking sector.

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THE COMMITTEES' REPORTS ON URBAN CO-OPERATIVE BANKS IN INDIA

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Abstract: *The Indian financial system will grow not only in size but also in complexity as the forces of competition gain further momentum and financial market acquire greater depth. The policy environment will remain supportive of healthy growth and development with accent on more operational flexibility as well as greater prudential regulation and supervision. The real success of our financial sector reforms will however depend primarily on the organizational effectiveness of the banks, including urban cooperative banks (UCBs), for which initiatives will have to come from the banks themselves. The main objectives of UCBs were to meet the banking and credit requirements of the urban middle/lower classes and to protect them from exploitation. The UCBs have been occupying a unique place in the Indian cooperative credit structure and ranked a very significant position in the Indian banking sector, which in the recent years has gone through a lot of turmoil, a series of failure and financial irregularities in Indian UCBs. This paper points to the significant role played by the reports of various committees appointed by the Central/State governments or RBI for strengthening and growth of urban co-operative banks in India.*

Key Words: *Committees, Compendium of Instructions/Guidelines, Need, SAC.*

1. Introduction

'Co-operation' as is understood today, as an economic system, was born as a peaceful reaction against the mercantile economy and industrial revolution which had resulted in the concentration of wealth, mass poverty and degradation, in a word 'decay of men'. The ideas of the co-operative movement are basically the same all over the world, its form and content varied from country to country. Co-operation took birth in different countries among people with different economic interests and for performing different economic functions. Everywhere, however, it originated as a defensive bulwark against exploitation of the weak by those in a stronger economic position. Basically, the co-operative movement was started in India to ameliorate the conditions of the rural masses. However, it was soon realized that co-operation offers a solution to the difficulties encountered not only by agriculturists but also by the townsmen in respect of credit as well as other aspects of their business and life.

2. Need for Urban Co-operative Banks

The need for Urban Co-operative Banks (UCBs) arises from the fact that joint-stock banks are not interested in providing credit to the urban middle classes. This is because it is not advantageous for joint-stock banks in developing the business of small loans on account of high cost of advancing and recovering them. As a result, the man with limited means in urban areas would be driven to money lenders or similar agencies to obtain loans at exorbitant rate of interest. Thus, the urban co-operative credit movement started in India with the chief object of catering to the banking and credit requirements of the urban middle classes such as small traders, businessmen, the artisans, factory workers and the salaried people with limited fixed income in urban or semi-urban areas. Besides protecting the middle classes and men of modest means from the clutches of the money-lenders the movement is also expected to inculcate the habit of thrift and savings amongst them. The movement has provided the frugal sections of the community an opportunity of investing their savings and thus has enabled the hard-pressed people to tide over the period of stress and strain. In those days, all the urban credit societies including urban banks were described as "non-agricultural credit societies".



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Special encouragement was not given by the government for the organization of non-agricultural credit societies. They were expected to grow themselves without the assistance from the state. This has undermined the seriousness of urban poverty and misery.

The Urban Co-operative Banks (UCBs) have been occupying a unique place in the co-operative credit structure and are expected to assume the leadership in undertaking promotional and developmental programmes for the growth and success of the co-operative movement in urban and semi-urban centers of India. Several studies – both individual and institutional – have been carried out on co-operation in general and urban co-operative banks in particular.

Select review of literature on urban co-operative movement in India has been attempted in the following lines.

1. Reports of Committees constituted by the Government / Reserve Bank of India.
2. Proceedings of the meetings of Standing Advisory Committee for UCBs conducted by the RBI.
3. Compendium of Instructions/Guidelines for Primary Co-operative Banks issued by RBI from time to time.

3. Reports of Committees of Government/RBI

3.1. MacLagan Committee

The first and foremost study with regard to urban co-operatives has been made by MacLagan Committee (1915) on Co-operation. The development of urban co-operative societies did not receive much attention until 1915 when the MacLagan Committee referred to the potentialities for the organization of such societies as a means of training the upper and middle classes in ordinary banking principles. The failure of local joint-stock banks in the country at that time gave an impetus to the growth of urban co-operative credit societies. It was felt by the Committee that urban credit societies were eminently suitable institutional agencies for collecting local savings and to provide relief to those who were in the clutches of money lenders by providing them with financial accommodation.

3.2. Central Banking Enquiry Committee

The Central Banking Enquiry Committee (1931) recommended that limited liability co-operative societies generally known as urban banks, should be established where necessary facilities and conditions exist, for the benefit of lower and middle classes of population. The UCBs are considered to be special societies meant for salary earners and they are looked upon as thrift societies for collecting and investing the savings of their members. It was envisaged that these urban banks should be tried to do for the small traders, the small merchant and the middle-class population what the commercial banks are doing for the big trader and big merchant.

3.3. Mehta-Bhansali Committee

The Mehta-Bhansali Committee (1939) made an attempt to define an urban co-operative bank. In the beginning most of the urban banks in India were organized as credit societies and later converted into urban banks. According to this Committee all urban credit societies having a paid-up share capital of Rs. 20,000 and above and accepting deposits of money on current account or otherwise subject to withdrawal by cheques, drafts or order came within the category of UCBs. However, in many provinces this term was used for credit societies working in urban areas irrespective of the size of share capital or the nature of deposits accepted by them.

In 1940 the Reserve Bank of India made a review on the co-operative movement in India and has stated that urban co-operative credit societies and banks occupy a prominent place among the agencies supplying the credit needs of the people residing in urban areas. They advance loans mostly to small traders, artisans (mostly self-employed) and salary earners on personal security as well as against gold, silver and produce.

3.4. Committee on Co-operation

A Committee on Co-operation (1940) appointed by the Government of Madras laid strong emphasis organization of non-agricultural societies in urban areas. The Committee viewed that “the emphasis laid on rural credit did not prevent a recognition of the fact that the interests of the small traders, artisans, shopkeepers, industrial employees and others in towns should

be protected and facilities be provided for, granting reasonable credit to them". The Committee also observed that an examination of the urban credit societies or banks shows that, in many of the towns, there is more than one urban bank or credit society functioning. This results in the overlapping of their jurisdiction and an undesirable competition for securing deposits/business.

3.5. Co-operative Planning Committee

In January 1945 the Government of India appointed a committee under the chairmanship of Mr. R. G. Saraiya, to draw up a plan of co-operative development. Its report was submitted in November 1945. The Committee made a detailed study of the problems facing the cooperative movement in the country and its recommendations ranged over both organisational and administrative aspects. It recommended that urban banks should be organized in all towns and should function on proper co-operative lines. It opined that urban banks should have at least Rs.20,000 as paid-up capital, if they have to operate on sound lines.

3.6. All India Rural Credit Survey Committee

All India Rural Credit Survey Committee (1954), while identifying the reasons for the failure of the co-operative credit, made an attempt to discuss the role of urban banks. The Committee pointed out that, in the matter of loans against pledge of gold and agricultural produce, urban banks may be allowed to extend their share of operations to villages within a radius of five miles of the area of towns in which they are located provided there are no primary agricultural credit societies in the villages concerned.

3.7. Report of the Survey on UCBs

The Report of the Survey on UCBs (1961) made many suggestions for the promotion and development of UCBs and the full utilization of their potentialities. The report also emphasized the need for active support of the state governments in the development of UCBs by ensuring adequate arrangements for their audit, inspection and supervision. The Report further observed that with the growth of planning and increase in the tempo of economic development, steps had been taken

to promote the development of various types of economic activities in the sphere of co-operation, much attention had been paid to the promotion of agricultural co-operatives, industrial co-operatives and various other types of co-operative societies. A similar approach has, however, not been made with regard to the non-agricultural credit co-operatives or UCBs.

3.8. Study Group on Credit Co-operatives in Non-Agricultural Sector

The Study Group on Credit Co-operatives in Non-Agricultural Sector, appointed by the Government of India under the chairmanship of V.P. Varde in 1963 suggested certain norms. The Study Group recommended that a credit co-operative society registered under the State Co-operatives Act in urban or semi-urban areas having a minimum paid-up share capital of Rs.50,000 and undertaking the provision of banking facilities could be termed as an 'urban co-operative bank' and indicated that urban credit societies and banks are important features of urban co-operative movement in India and make up to some extent for the absence of joint-stock banking facilities in the smallest towns. The Study Group observed that Credit Co-operatives in the Non-agricultural Sector cover a wide field. These include UCBs where deposits are withdrawal by cheques and carry on normal banking functions, Employee's Co-operative Credit Societies including Factory Workers' Credit Societies which receive deposits from members and non-members and meet these requirements of permanent or semi-permanent salary earners in a particular organization and other types of Non-agricultural Credit Societies catering to a particular profession, such as weavers, fishermen, etc., or a particular community or religious group. Besides these there are a considerable number of Women's Thrift and Credit Societies.

3.9. Working Group on Industrial Finance

The Working Group on Industrial Finance through Co-operative Banks (1968) appointed by the Reserve Bank, recognizing the key role of urban banks in providing finance to cottage and small industries, recommended that high priority to be given to the organization of such banks in areas where there was a sufficient concentration of cottage and small scale industries carried on

by individuals as well as by firms and joint-stock companies.

3.10. The Committee on Problems of UCBs

The Committee on Problems of UCBs in Maharashtra appointed by the government of Maharashtra in 1976 under the chairmanship of V.M. Joglekar focused on the promising role of UCBs and felt that "UCBs are not just substitute lending agencies for private money lenders who resort to usurious practices or for the commercial banks which have been by and large inaccessible. They are better substitutes with a special character and function. They have, from their very objectives, a more positive role to play. This role implies that UCBs have to inculcate the habit of thrift and savings among persons with small incomes by offering suitable facilities for depositing their savings."

3.11. Madhava Das Committee

The RBI appointed a Committee in 1978 under the chairmanship of K. Madhava Das, Executive Director of RBI, to study the various aspects of the working of UCBs in the country, to evaluate the role of primary (urban) co-operative banks in the banking system and, to indicate their future role, and in particular to assess whether any additional facilities or assistance were needed for them. The report examined overall scenario of UCBs in India, branch licensing policy of UCBs and the regular mechanism available to control and regulate their activities. It has also recommended policy measures, including licensing procedure, standards of viability and measures for rehabilitation of weak banks. The Committee observed that, while there is no change in the basic objectives of UCBs, i.e., promotion of thrift among members and non-members, provision of credit on reasonable terms to persons of limited means, and provision of banking services to customers, a new dimensions has been given to the operation of these institutions in recent years with their recognition as appropriate agencies for financing cottage and small scale industries carried out by individuals as well as joint-stock companies.

3.12. Basle Committee

The Basle Committee (1988) on Banking Supervision has underscored the following twin

fundamental objectives of the Basle accord. First, the framework should serve to strengthen the soundness and stability of international banking system and secondly the framework should be a high degree of consistency in its application to banks in different countries with a view to diminishing the existing source of competitive inequality among international banks. In this context the Committee observed that the licensing authority must have the right to set criteria and reject applications for establishment that do not meet the standards set. The licensing process at a minimum should consist of an assessment of the banking organizations, ownership, structure, directors and senior management, its operative plan and internal control, and its projected financial condition, including its capital base.

3.13. National Federation of UCBs and Credit Societies Limited

As per the study made by National Federation of Urban Co-operative Banks and Credit Societies Limited (1989), the UCBs act as agencies for the developmental activities in the urban and semi-urban areas just as their rural counterparts, the agricultural credit co-operatives, do so in the rural areas. The better it would be for all concerned, as such an arrangement would enable optimum mobilization and utilization of the resources of these banks for the benefit of priority and weaker sections in the urban and semi-urban areas. The study has also suggested that co-operative banks, like central co-operative banks, should have freedom to open branches within their area of operation based on their business needs. Naturally, the UCBs should be kept out of the branch licensing policy devised for the nationalized/commercial banks. They are small institutions of small people, established to serve their members who also own them.

3.14. Expert Committee (Marathe Committee)

The Reserve Bank of India constituted in September 1991 an Expert Committee under the chairmanship of Marathe on the policy relating to the licensing of new UCBs and other related matters. The report focused its attention on registration and licensing of new UCBs, inclusion of primary (urban) co-operative credit societies

in the list of UCBs, viability of UCBs, licensing of existing UCBs, area of operation, rehabilitation of weak banks, role of State Co-operative Banks and National/State Federations and other institutions connected with UCBs. Essentially, Marathe Committee suggested to dispense with "one district-one bank" licensing policy and recommended organization of banks based on the need for an institution and potential for a bank to mobilize deposits and purveying of credit. It also felt that existence of commercial banking network should not prevent the co-operative initiative.

3.15. Financial System (Narasimham Committee, 1991)

The Committee on Financial System (Narasimham Committee, 1991) opined that in order that the balance sheet of a bank reflects its actual financial health, a proper system for recognition of income, classification of assets and provisioning for bad debts on a prudential basis is necessary. Accordingly, the Committee has made certain recommendations regarding these prudential norms, which were implemented by RBI in respect of commercial banks, subsequently RBI considered that it is desirable to apply these prudential norms also to UCBs with suitable modifications. Accordingly, the RBI has codified these norms applicable to UCBs and instructed UCBs to implement them in a phased manner within a period of 3 years commencing from 18th April, 1992.

3.16. The National Federation of UCBs and Credit Societies

The National Federation of Urban Co-operative Banks and Credit Societies (1993) has made several studies on the dimensions of growth and the problems of urban co-operatives. The monograph, brought out in 1985 provided various phases of UCBs in India and their historical background. It also gave a detailed account of their licensing policy, rehabilitation of weak UCBs, the role of RBI in their development and the like. According to National Federation of UCBs and Credit Societies, the development of urban banking sector has emerged as a powerful and self reliant institutional agency playing a constructive role in increasing production, and strengthening infrastructure in the urban and semi-

urban areas.

3.17. Working Group on instill professionalism in the audit of UCBs

A Working Group appointed by RBI under the chairmanship of Uday M. Chitale in December 1995 reviewed the existing audit systems of UCBs. With a view to instill professionalism in the audit of UCBs, the Working Group suggested that audit of UCBs, with deposits of Rs.25 crores and above, be conducted by Chartered Accountants, thus, ending the monopoly of State Governments' audit of UCBs. It suggested a standard format of audit for all the states. The Working Group also suggested revised audit rating model for UCBs. Regrettably none of the states, not even the co-operatively advanced states, implemented the recommendations of Chitale Working Group.

3.18. Banking Sector Reforms (Narasimham Committee II, 1998)

The Committee on Banking Sector Reforms (Narasimham Committee II, 1998) has rightly pointed out that adequacy of capital has traditionally been regarded as sign of banking strength irrespective of whether the institution is owned by Government or not. The Committee unequivocally expressed its resentment over low entry point norms for UCBs. It felt the current entry point norms, especially the capital requirements are much too liberal and RBI should urgently undertake a review of these norms and prescribe revised minimum capital norms for these banks. The Committee had also unequivocally recommended for ending dual control regime over UCBs, and felt that dual command is the causative factor for the UCBs and it is an impediment in effective supervision over them.

3.19. High Power Committee

The Reserve Bank of India appointed a High Power Committee in May 1999 under the chairmanship of K. Madhava Rao, Ex-Chief Secretary, and Government of Andhra Pradesh to review the performance of UCBs and suggest necessary measures to strengthen this sector. The terms of references of this Committee are: (i) to evolve objective criteria to determine the need and potential for organizing UCBs; (ii) to review the existing entry point norms and examine the

relevance of special dispensation for less/least developed areas etc.; (iii) to review the existing policy pertaining to branch licensing and area of operation of UCBs; (iv) to consider measures for determining the future setup of weak/unlicensed banks; (v) to examine the feasibility of introducing capital adequacy norms for UCBs; (vi) to examine the need for conversion of co-operative credit societies into primary co-operative banks; and (vii) to suggest necessary legislative amendments to Banking Regulation Act and Co-operative Societies Act of various states for strengthening the urban banking movement. Keeping in view the recommendations of this High Power Committee, RBI issued directives and revised guidelines regarding various aspects on organisation and functioning of UCBs to put on sound footing.

3.20. Expert Committee (Andhra Pradesh)

Government of Andhra Pradesh appointed a Expert Committee (2002) to review the functioning of UCBs in the state under the chairmanship of K.Narasimha Murthy. The suggestions of the Committee including co-opting 6-7 directors from among the shareholders, 3-5 from among the depositors and three professionals from the banking, finance, auditing and legal fields to the Boards of Banks, limiting the term of each director to a maximum of eight years instead of an unlimited period, appointment of a qualified person as a chief executive and capping establishment expenditure up to 10 per cent. The panel also recommended that Committees be formed for dealing with the procedure on auditing, giving loans and asset liability management and suggested that no loans be given for real estate business, stock market operations, and film production. It also recommended payment of a maximum dividend of 25 per cent to the shareholders and also limiting the term of deposits to 10 years.

3.21. Working Group on IT support for Urban Cooperative Banks

The Reserve Bank constituted a Working Group on December 19, 2007 under the Chairmanship of Shri R.Gandhi, Regional Director, RBI, New Delhi. The working group observed that there is a wide variance among

Urban Cooperative Banks with regard to the usage of Information Technology, as on March 31,2007, 16 out of 1853 banks had implemented Core Banking Solution, with some of them even offering to set up/share data centers with smaller UCBs, while over 50 banks did not even have computers. The remaining banks existed somewhere in between. Considering the concentration of small UCBs, the lack of uniformity in the levels of computerization and inadequate awareness about the efficacy of computers in enhancing competitiveness, the Group felt it necessary to articulate the minimum IT infrastructure which should exist in each UCB regardless of its size, location or profitability. In order to implement the minimum level of IT infrastructure by the UCBs as indicated in Recommendation No 1, Core Banking Solution (CBS) would be required to be adopted by the banks. If banks seek to go for outright purchase of the Core Banking, including data centre, the cost would be in the range of Rs.1.5 crores to 2 crores for 5-10 branches per bank.

3.22. The Expert Committee on Licensing of New Urban Co-operative Banks

The Reserve Bank of India constituted The Expert Committee in Dec, 2010 on Licensing of Urban Cooperative Banks under the Chairmanship of Sri. Y.H, Malegam. The Committee submitted its report to the RBI in Aug, 2011 with many observations as well as very valuable recommendations. Reserve Bank followed liberal licensing policy between May 1993 and March 1999. However, many UCBs licensed during this period became financially weak. In the Annual Policy Statement for 2004-05, RBI announced licensing discontinuance and entered in to MoU with State Governments for co-ordination of regulatory policies. Since then, there has been considerable improvement in the functioning of UCBs, only 57.6 per cent of existing UCBs can be considered as financially sound, UCBs as a class account for only 3.5 per cent of the deposits and only 2.9 per cent of the advances of the banking sector, at present 88 UCBs have a negative net worth, The signing of MoUs between the State Governments and RBI and the setting up of TAFCUBs has resulted in a significant improvement in the health of the UCB sector.

The Committee recommends the following entry point norms as regards minimum capital for new UCBs.

Sr.No.	Particulars	Minimum Capital
1	UCB operating in only one state in i. North Eastern States ii. In other States but confined to unbanked districts iii. In other States but confined to C & D category population centres of banked districts	50 lakh
2	UCB operating in only one state with 50% or more branches in C & D category population centres	100 lakh
3	UCB operating in only one State but without requirement to have branches in 'C' and 'D' category population centres.	300 lakh
4.	UCB which wishes to operate in more than one state after five years of successful operation	500 lakh

It should be made a condition of the license that every new UCB should:

- have a Board of Management with the constitution as specified;
- RBI should have the powers for regulation and control as specified;
- Every UCB should be audited by a Chartered Accountant to be appointed from a panel maintained by RBI; and
- The Board of Management should follow a Code of Corporate Governance as specified by RBI.

4. Meeting of Standing Advisory Committee for UCBs

The Reserve Bank constituted in 1983, a Standing Advisory Committee on Urban Co-operative Banks (UCBs) under the chairmanship of its Deputy Governor in-charge of the Urban Banks Division to advise the RBI on various aspects pertaining to the UCBs such as organizational matters, mobilization of resources and their deployment including the priority sector lending, financing under the 20-Point Economic Programme, co-ordination with other institutions such as IDBI, DICGC, etc., modalities on the rehabilitation of weak banks, introduction of professional management, training and education of personnel of the UCBs. The membership of the Standing Advisory Committee includes the

representatives of the Government of India (Ministries of Finance and Agriculture), NABARD, State Governments, Urban Banks Federation/Associations, urban banks and other co-operative and commercial banks. The RBI has been conducting meetings of the Standing Advisory Committee (SAC) for UCBs annually.

5. Compendium of Instructions / Guidelines Issued by RBI

Reserve Bank of India issues from time to time instructions / guidelines regarding, operations and functioning of UCBs which are published in the form of 'Compendium of Instructions / Guidelines issued by RBI'. These compendia contain seven / eight sections dealing with guidelines for operations of UCBs in the matter of banking regulations and returns; directives on advances; directives on interest rates on deposits; planning and operations; inspections and licensing of existing PCBs; registration and licensing of new PCBs; and branch licensing of weak banks.

6. Conclusion

The urban co-operative banks were organized in India at the turn of last century i.e., ten decades ago to cater the credit needs of urban middle class, and now they are occupying an important position in banking system of India and have a vital role to play in the attainment of national objectives as envisaged in the Five Year Plans. In spite of the fact that these banks have to face the competition

from commercial banks, they have done well in matter of expansion of their operations and rendering services. These banks have recorded a significant growth in the recent past. From time to time the government or RBI collected information about the UCBs through the various committee reports, these have paved way for the healthy growth of UCBs bringing about the needed financial discipline. RBI has fixed norms of viability for urban banks to reduce the incidence of sickness. Besides, prudential norms regarding income recognition, assets classification, provisioning and other related issues, as recommended by Narasimham Committee, have been made applicable to UCBs also by the RBI. RBI is conducting annually Standing Advisory Committee (SAC) meetings for UCBs to review the progress and performance of these banks and also is issuing instructions, directives and guidelines in respect of different matter connected with organization and functioning of UCBs. National Federation of UCBs, State Level Federations/ Associations of UCBs are also playing a vital role in the healthy promotion and development of UCBs in the country. The State Level Co-operative Apex Banks and Registrars of Co-operatives of State Governments are also given directions by the RBI from time to time in the matter of UCBs development. Thus, there are no dearth of agencies for development of UCBs. But the need of the hour is better co-ordination between RBI, State Governments and other agencies to place the urban co-operative banking movement on a sound footing.

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ANALYSIS OF LEARNER PROFILE GENERATION ALGORITHMS

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Abstract: With the rapid growth of computer and Internet technologies, e-learning has become a major trend in the computer assisted teaching and learning fields. By observing how learners behave during their online self-study, educators are then capable of comparing, evaluating, and profiling individual learners' learning processes and thus making suggestions to learners with similar characteristics in the same context.

Learner profile generation can be achieved by various methods like sequential data mining algorithms where computer logs are analyzed to profile learners in terms of their learning tactic use and motivation in a web-based learning environment. Basic steps involved are preprocessing, pattern discovery and pattern analysis- evaluation.

Another approach is that of Fuzzy Cognitive Map (FCM) tool which is a soft computing tool and the reason, which leads to FCM approach, is mainly the observation of uncertainty in learner's profile description. Therefore, classes in any classification of learner's profile are considered as fuzzy sets and are represented as vertices of a Fuzzy Cognitive Map. It is based on Kolb's learning model which is widely accepted technique.

A third approach is that of using genetic algorithm based on adaptive learning for fulfilling multiple constraints to determine the learning scheme which best suits a learner. Adaptability can be provided at different levels according to the context of the learners. For constraint satisfaction problems in which multiple alternative paths have to be explored, genetic algorithm based approach is best suited.

Literature survey done on the above approaches shows that a lot of work is being carried out in the area of learner profile generation and understanding of the various approaches. In this report exhaustive study on various methods like genetic based algorithms, adaptive learning based on Kolb's learning cycle using FCM tool and sequential pattern analysis is presented.

General Terms : FCM(Fuzzy Cognitive Map), Kolb's learning cycle

Key Words: Learner profile, adaptive learning, Kolb's cycle, genetic algorithm, sequential mining, fuzzy sets

1. Introduction

Internet has become accessible for wide parties of contemporary societies and its role continuously widens. One of the interesting usages of Internet is e-learning. E-learning system has become widely used in educational society because of its advantages on enabling learning anywhere and anytime. In e-learning, delivery of learning contents should adapt to the pre-knowledge of the learner, learner's pace of learning, level of comprehension, etc. Selection of appropriate learning contents and delivery of them to learners are challenging tasks of e-learning, because the learning content must be provided to an acceptable level of the learner's understanding. The sequential data mining algorithms analyze computer logs to profile

learners in terms of their learning tactic and motivation in a web-based learning environment. The data mining algorithms are employed to discover patterns which characterize learners either across session or groups based on their study tactic choice and goal orientation. With data mining techniques, instructors can first receive a detailed record of a learner's behavior. Further, if they find similar groups of students, they can classify them into one group which shows the main characteristics of the group, and it allows new students to be classified. Finally, the instructors can discover if there is any relationship between these characteristics and learners' other psychological attributes. The learning diagnosis approach uses mining association rule. The genetic approach based on adaptive learning in which many learner context parameters considered for adaptive learning scheme generation as depicted in the newly proposed context structure. These parameter values are considered as constraints to be fulfilled for learning scheme generation. In



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order to generate a customized learning scheme for a learner, all the context values of the learner should be satisfied. For fulfilling multiple constraints, many alternate learning schemes should be generated and evaluated in order to determine the learning scheme which best suits a learner. For constraint satisfaction problems in which multiple alternative paths have to be explored, genetic algorithm based approach is best suited. Hence, the learning scheme is generated using the genetic algorithm based approach. The next method of learner's profile and style recognition is based on Fuzzy Cognitive Maps which is a soft computing methodology that has been successfully used to model complex systems and to support making decisions. A system designed to diagnose in the best possible way the learner's profile as it has been classified by the experts in the field, can be considered a complex system FCM methodology.

2. Related Work

Data mining techniques can discover useful information that can be used in formative evaluation to assist educators establish a pedagogical basis for decisions when designing or modifying an environment or teaching approach. The application of data mining in educational systems [1] is an iterative cycle of hypothesis formation, testing, and refinement. Mined knowledge should enter the loop of the system and guide, facilitate and enhance learning as a whole. The discovered knowledge can be used not only by providers (educators) but also by own users (students).[2] So, the application of data mining in educational systems can be oriented to different actors with each particular point of view. The approach based on sequential pattern mining approach where the algorithms are employed to discover patterns which characterize learners either across session or groups based on their study tactic choice and goal orientation. With data mining techniques, instructors can first receive a detailed record of a learner's behavior [3]. Further, if they find similar groups of students, they can classify them into one group which shows the main characteristics of the group, and it allows new students to be classified. Finally, the instructors can discover if there is any relationship between these characteristics and learners' other psychological attributes. To profile learners based on their learning behavior, the studying actions

comprised of the events logged by the system are needed for the learning pattern extraction. The steps[4] are: Preprocessing- The raw learning logs involve a complex series of low-level events spaced along a time dimension. Through a log parsing mechanism, it matches events in a learning log to study actions predefined by the researcher and generates a sequence of temporally ordered learner actions. The data pre-processing phase includes the data cleaning, user identification, session identification and data transformation respectively. Next is the pattern discovery phase involves the discovery of frequent sequences. The pattern analysis phase involves the analysis of the frequent patterns generated by the pattern discovery phase.

The Fuzzy Cognitive Map (FCM)[7] tool in which the method of learner's profile and style recognition is used to model complex systems and to support making decisions. A system designed to diagnose in the best possible way the learner's profile as it has been classified by the experts in the field, can be considered a complex system FCM methodology. According to learning style model, introduced by Kolb, classification is according to what "we learn by conceiving and transforming our experiences". Also conception and elaboration of information are the two dimensions of learning process. As a matter of information elaboration one has to choose among Reflective Observation or Active Experimentation. Such choices determine the learning Style. According to Kolb's model [8], the four learning styles and the corresponding per learning dimension choices are presented. The used linguistic terms to indicate this amount of preference – tendency in a certain behavior or property are: very strong, strong , ordinary and weak which are considered as fuzzy variables. Kolb's Experiential Learning Theory presents a cycle of four elements: Concrete Experience, Reflective Observation, Abstract Conceptualization, Active Experimentation .Fuzzy Cognitive Maps (FCM) is a soft computing tool which can be considered as a combination of fuzzy logic and neural networks techniques The 3 layers of an FCM [8] are: The inner layer is conformed by the four learner's profiles according to Kolb's classification - Diverger, Assimilator, Converger, Accommodator. The middle layer is the layer of basic learner's characteristics. Learner's Characteristics- (LC) Concrete Experience (CE),

Abstract Conceptualization (AC), Active Experimentation (AE), Reflective Observation (RO). The outer layer has the measurable learning activity factors (LAF) which are subjects to be diagnosed by the machine. Learning Activity Factors (LAF)-a set has been used, to the purpose of LS detection. The genetic algorithm based on parameter values which are considered as constraints to be fulfilled for learning scheme generation. For fulfilling multiple constraints, many alternate learning schemes should be generated and evaluated in order to determine the learning scheme which best suits a learner. Hence, the learning scheme is generated using the genetic algorithm based approach. Context aware e-learning system [9] provides the learning contents based on the individual characteristics of the learner, where context is referred as any information that can be used to characterize the situation of an entity where an entity can be a person, place and a physical or computational object. For generating a learning scheme, three levels of contexts of learner are to be considered. They are Content level, Presentation level and Media level contexts. Fig 1 illustrates the context structure needed to be considered for generating context-aware learning contents.

Content layer deals with learning path generation. The individual learning path generation is important because different learners may have different characteristics, prior knowledge or motivation or needs. The second level, Presentation level mainly concentrates on the learner's preferences and intentions. For

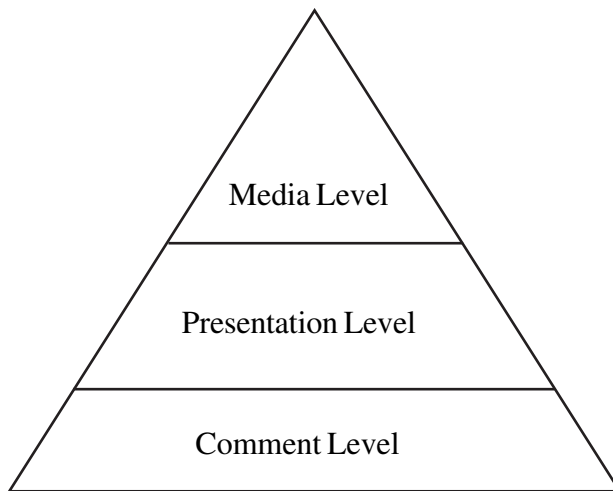


Figure 1 Structure of learning context

example, a learner may prefer to learn a content material by Concept, Detailed Concept,

2.1 GSP Algorithm[4]-(Generalized Sequential Pattern)

The algorithm used for sequence mining and for solving sequence mining[5] problems are mostly based on the *a priori* (level-wise) algorithm. One way to use the level-wise paradigm is to first discover all the frequent items in a level-wise fashion. It means counting the occurrences of all singleton elements in the database. Then, the transactions are filtered by removing the non-frequent items. At the end of this step, each transaction consists of only the frequent elements it originally contained. This modified database becomes an input to the GSP algorithm. This process requires one pass over the whole database.

GSP Algorithm makes multiple database passes. Given a set of frequent $n-1$ patterns, the candidate set for next generation are generated from input set according to the thresholds. Only frequent patterns in the current set are considered for generating the next candidate sequence. A pruning phase eliminates subsets of infrequent patterns. For all patterns P in the candidate set with length k , all sessions are processed once and the count is incremented for each detected pattern in the candidate set. There are two main steps in the algorithm.

Candidate Generation-Given the set of frequent $(k-1)$ -frequent sequences $F(k-1)$, the candidates for the next pass are generated by joining $F(k-1)$ with itself. A pruning phase eliminates any sequence, at least one of whose subsequences is not frequent.

Support Counting-Normally, a hash tree-based search is employed for efficient support counting. Finally non-maximal frequent sequences are removed. GSP makes multiple passes over the session set.

2.1.1 GSP Algorithm

$F1$ = the set of frequent 1-sequence $k=2$, do while $F(k-1) \neq \text{Null}$;

Generate candidate sets C_k (set of candidate k -sequences);

For all input sequences s in the database D
do

Increment count of all a in C_k if s supports a
 $F_k = \{a \mid C_k \text{ such that its frequency exceeds the threshold}\}$

$k = k+1$;

Result = Set of all frequent sequences is the union of all F_k s

End do

End do

The GSP algorithm discovers frequent sequences, allowing for time constraints such as maximum gap and minimum gap among the sequence elements

2.1.2 The GSP Algorithm Analysis

The GSP algorithm[6] includes two key steps:

1. Candidate Generation. Given the set of frequent $(k-1)$ -frequent sequences $F(k-1)$, the candidates for the next pass are generated by joining $F(k-1)$ with itself. A pruning phase eliminates any sequence, at least one of whose subsequences is not frequent.
2. Support Counting- Normally, a hash tree-based search is employed for efficient support counting. Finally non-maximal frequent sequences are removed.

GSP (Generalized Sequential Pattern) has disadvantages because of the huge set of candidates could be generated, multiple scans of database in mining and the real challenge is mining long sequential patterns.

1.1 Fuzzy Cognitive Map tool[7]

Fuzzy Cognitive Map is based on Kolb's learning cycle. According to Kolb's model[7], the four learning styles and the corresponding per learning dimension choices are presented at the following table. Below are the basic factors that correspond to learner's behavior. The proposed fuzzy sets and their corresponding membership functions are:

- M_w (weak cause) the fuzzy set for causality around 17.5 % with membership function μ_{wc} .
- M_o (ordinary cause) the fuzzy set for causality around 42.5 % with membership function μ_{oc} .

- M_s (strong cause) the fuzzy set for causality around 57.5 % with membership function μ_{sc} .

- M_{vs} (very strong cause) the fuzzy set for causality around 82.5 % with membership function μ_{esc} .

2.2.1 Algorithm

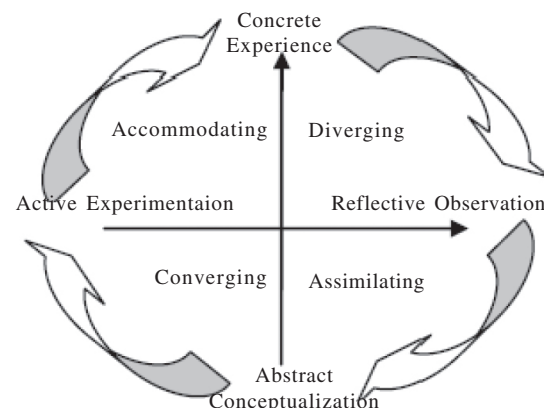
Let N be the number of concepts in the FCM

1. Set the number k of learners
2. Set initial values $n=0$, $V^0(C_i)$ for $i = 1, 2, \dots, N$ from the learner's profile database. Data have been stored as the learner responded to certain tests. Data have been stored as linguistic values A_i , and have been turn to fuzzy degrees $V^0(C_i)$ for all concepts except those in LP. Concepts in LP are set equal to 0 for $n = 0$.

Table 1
Basic factors that correspond to learner's behaviors

	Diverger	Assimilator	Converger	Accommodator
Active Experimentation (AE)			x	x
Abstract Conceptualization (AC)		x	x	
Reflective Observation (RO)	x	x		
Concrete Experience (CE)	x		x	

Figure 2 Kolb's learning cycle



3. Set the initial values for $w_{j,k}$ according to given information.
4. For $n=n+1$, apply the relation (1) and set values $V^{n+1}(C_i)$. Update learner's profile database. Following the defuzzification the weights at the edges of the graph are presented as elements of the adjacent matrix W_n .
5. Set $V^{n+1}=W_n V^n$, where
 - a. If a C_i does not be influenced by any C_j , $j \neq i$ then $w_{j,i}=1$ at present n
 - b. If a $V^n(C_i)=m$ [$V^n(C_j)$] -1, for a given measure of competence $0 < m < 1$, then set $w_{ij}=-m$
6. Use the unipolar sigmoid function $f(X) = \frac{1}{1+e^{-2x}}$ to transform the coordinates of V^{n+1} into the interval $[0,1]$.
 - a. If $\max_{0 < i < k} |V^{n+1}(C_i) - V^n(C_i)| < \epsilon$, ($\epsilon > 0$) then stop and store as result the learner's profile which has the highest value $V^{n+1}(C_i)$

Using the above membership functions we defuzzify the fuzzy degrees[8] of LAF causalities towards Learning styles.

2.3 Genetic algorithm[9]

Genetic algorithm is based on context aware adaptive learning[9]. For generating a learning scheme, three levels of contexts of learner are to be considered. There are many learner's parameters considered for context aware e-learning system. These parameters are used for generating learning path. Learning path defines the sequence of learning activities that is carried out by the learner going through learning units in e-learning system.

1.3.1 Algorithm

Step 1: Definition of Chromosome String.

The chromosome string considered here consists of 3 types of genes, such as content level genes, presentation level genes and media level genes as shown in figure.

The content level genes are composed of IDs of learning objects which constitute the learning path of a learner. The presentation level genes represent the order of presentation of learning objects to the learner based on his learning

preference and intention. Each learning object can be presented in six ways such as concept, example, case study, simulation, demonstration and detailed concepts. The media level genes represent the media of learning object such as audio, video or text.

Step 2: Initial Population- It is obtained by taking permutation of each set of genes

Content Level Genes	Presentation Level Genes	Media Level Genes
---------------------	--------------------------	-------------------

Gene Representation

Step 3: Selecting the fitness function:

$$f = f(s) + f(p) + f(m),$$

where $f(s) = \{\text{effort taken for studying one learning object with respect to other LO}\} * \{\text{difficulty of LO going to study}\}$

$f(p) = \{\text{Position of abstraction based on psychology of Learner}\} * \{\text{Position of each type of LO in the randomly generated presentation}\}$

$f(m)$ Media level fitness

Step 4: Reproduction Operation.

In the reproduction operation, the chromosome with the larger fitness function value will have a higher probability to reproduce the next generation. The aim of this operation is to choose good chromosome to achieve the goal of gene evaluation.

Step 5: Stop Criterion.

The genetic algorithm repeatedly runs the reproduction, cross over and mutation operations until it converge at maximum fitness value.

1. [Start]Generate random population of chromosomes.
2. [Fitness]Evaluate the fitness $f(x)$ of each chromosome $f(x)=f(s)+f(p)+f(m)$ where $f(s)$ is content level fitness, $f(p)$ is presentation level fitness, and $f(m)$ is media level fitness.
3. [New population] Create new population by repeating following steps until the new population complete.
 - a. [Selection]Select two parent chromosome from a population according to

their fitness, the better fitness, the bigger chance to be selected.

- b. [Cross over] Two point cross over the parents to form new children.

3. RESULTS

In the above subtopics various algorithms for analysis of learner profile generation have been studied in detail and this section shows the comparison and results of the three algorithms.

GSP algorithm

InputFrequent Set k-1 (F[k-1])

Output.....Candidate Set C[k]

Steps-

1. Join F[k-1] with F[k-1]
2. Get rid of infrequent sequences (prune)
3. Order of items matter

$F[3] = \langle \{1, 2\} \{4\} \rangle, \langle \{1, 2\} \{5\} \rangle, \langle \{1\} \{4, 5\} \rangle, \langle \{1, 4\} \{6\} \rangle, \langle \{2\} \{4, 5\} \rangle, \langle \{2\} \{4\} \{6\} \rangle$

After Join: $\langle \{1, 2\} \{4, 5\} \rangle, \langle \{1, 2\} \{4\} \{6\} \rangle$

After Prune: $\langle \{1, 2\} \{4, 5\} \rangle$

$C[4] = \langle \{1, 2\} \{4, 5\} \rangle$

Candidate set= $\langle \{Risk\ taking, emotionally\ involved\}, \{Collaborative\ learning, scientific\ approach\} \rangle$

Fuzzy cognitive map tool

Below are the fuzzy sets based on the LAF above

Fuzzy Sets

Mw(weak cause)-17.5% ; Mo(ordinary cause)-42.5 %

Ms(strong cause)-57.5%; Mvs(very strong cause)-82.5 %

Below is a matrix of the LAF versus the weights.

0.175	0.575	0.825	0.175
0.825	0.175	0.425	0.575
0.175	0.575	0.425	0.825
0	0	0.175	0.825
0	0.825	0.575	0.175
0.175	0.425	0.825	0.575

Table 2 Learning Activity Factors with weights assigned

	LAF	Linguistic weight
1.	Risk taking	Very strong
2.	Emotionally involved	Very strong
3.	Self directed learning	Very strong
4.	Collaborative learning	Ordinary
5.	Scientific/systematic approach	Ordinary
6.	Authority treatment	Ordinary

Fig 3 Matrix of LAF v/s weights

$\langle Risk\ taking, emotionally\ involved, Collaborative\ learning,$

$Scientific\ approach. \rangle$

Weights-. $\langle Very\ Strong, Very\ strong, Ordinary, Ordinary \rangle$

Genetic algorithm

Chromosome-010101, Fitness Function- $8+10+1=19$

4. CONCLUSION

After analyzing the three approaches for learner profile generation we can come to a conclusion that genetic algorithm is the best amongst them because it has advantages like, a new three level structure for learner's context comprising of the content level, presentation level and media level is defined. The learning scheme generation algorithm is designed to be genetic where various learner's context parameter values are viewed as constraints to be fulfilled in the learning scheme generation. Genetic algorithms are best suitable for handling multiple constraint satisfaction problems which have many alternative solutions. Fuzzy logic and neural network based algorithm known as FCM (Fuzzy Cognitive Map) tool is also not very advantageous as there are deficiencies caused by the dependence on human experts and learner's response. GSP (Generalized Sequential Pattern)

LAF	1	2	3	4	5	6
Chromosome	0	1	0	0	1	1
Weight	7	8	4	10	4	6

Chromosome -110110, Fitness Function -
7+8+10+4=29

LAF	1	2	3	4	5	6
Chromosome	1	1	0	1	1	0
Weight	7	8	4	10	4	6

Chromosome -010011, FitnessFunction-
4+8+6=18

LAF	1	2	3	4	5	6
Chromosome	0	1	0	0	1	0
Weight	7	8	4	10	4	6

Fitness values-.<1,2,4,5>

has given the worst result because a huge set of candidates could be generated ,multiple scans of database in mining. The real challenge is mining long sequential patterns.

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EXPLORING THE EFFECTS OF CONSUMER KNOWLEDGE AND FIT PERCEPTION IN BRAND EXTENSION SUCCESS

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Abstract: *The paper examines the impact of consumer knowledge and consumer fit perception that may enhance brand extension success: at brand category and brand image level. The findings reveal that, in evaluating brand extensions, consumers use not only knowledge about the brand category-level similarity between the extension and the products already associated with the brand, but also the image uniformity between the brand and the extension. Very favorable reactions occur when brand extensions are made with high brand concept consistency and high product feature similarity for both category-oriented and image-oriented brand names. The results also validate the effect of consumer knowledge on fit perception at category level and brand image level. Marketers need to be aware of whether the parent brand is mainly known for its brand category or image across its all product areas. An extension of an image oriented brand should be Promoted and positioned with more brand-related knowledge whereas the promotion of a category related brand extension may include more category related knowledge. This particular study is expected to contribute to the brand extension literature by studying this particular aspect and will help marketers for promotional and marketing differentiation in case of positioning an extension.*

Key Words: brand extension, consumer knowledge, fit perception

Introduction

Brand extensions – that is use of established brand names to launch new products (Ex. Use of the name of Apple for music system) has become a very popular new product launch strategy. The justification behind brand extension is simple: when a strong brand has been established, the brand has moved beyond the functional product into a realm of values. It makes economic sense to try to deliver the same emotional benefits in a different market (Mortimer, 2003). Many new products generally fail, every year the most successful ones tend to be brand extensions (Aaker 1991). This strategy is more successful than building a new brand name for new product introductions (Zhang & Sood, 2002). This so-called pioneering advantage is expected to be sustainable over time (Carpenter and Nakamoto 1989; Kardes et al. 1993; Robinson and Fornell 1985). But the process is not as easy as it seems. Consumers' knowledge plays an important role in understanding consumer behavior. Knowledge

mainly determines whether there is a true understanding of what a brand stands for. Positive and accurate understanding of the brand amongst target consumers results in high association with the brand at category or image level. However, it is not enough for a brand to tell consumers what their brand means, but the understanding should help in bridging consumers fit perception. Similarity fit is considered to know how far the consumer perceives the extended product category is similar to the parent product (Smith and Park, 1992) or parent brand. It is typically believed that consumers have to perceive a consistent approach between the original brand and the extension at brand category level or image level, so that the new addition could explore, enlarge and enhance the brand meaning, image and recognition in a prospects mind. In brand extension research there is hardly any variable rather than fit given so much attention because of its weightage in the past literature. Perceived similarity is found to be the most relevant variable that can highly influence the acceptance of brand extension (Völckner & Settler 2006). In many researches perceived fit is always found to be a single construct. About fit definition, everyone can come up with his or her own typical association. The fit is actually both the dimensions on different perspective and the



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whole as a complete construct of the perceived dimensions. The positive influence of fit also occurs both in studies considering fit globally (Gutiérrez and Rodríguez, 1994; Martínez and Pina, 2005) or focused on the dimensions of category and image fit (Boush et al., 1987; Boush and Loken, 1991; Park et al., 1991; de Magalhães and Varela, 1997; Seltene, 2004). Consumer knowledge has also been suggested as one of the variables that have an impact on consumer fit perceptions in a brand extension evaluation (Broniarczyk and Alba 1994). Consumers' knowledge at brand category and image level may enhance consumers fit perception and brand extension success in the context of introducing an extension with brand category or image consistency.

In order to assist marketing practitioners in this ever-changing business environment, for making more successful brand extension decisions and judgments, several researches are already focused on brand extensions from different aspects. This particular study explores the role of different consumer knowledge that enhances consumers' different fit perceptions and brand extension evaluations, and is expected to contribute to the brand extension literature by studying this particular aspect and will help marketers for promotional and marketing differentiation in case of positioning an extension.

Literature Framework and Construction of Hypotheses

Brand extension definition

The terminology of brand extension has been used inconsistently in the literature (Ambler & Styles, 1997; Grime et al., 2002). Aaker and Keller (1990) refer to "extension" as the general term for both line and brand extensions. A Line extension applies an existing brand name to a product in one of the firm's existing categories (ex. Ponds cold cream and Ponds fairness cream). Whereas brand extension strategy consists of using an established brand name to launch new products (Keller, 2007). The study adopts, brand extensions which are introduced in a different category from the existing business (De Pelsmacker et al., 2007). Now-a-days marketers are more likely to obtain the recognition of the

brand name and the loyalty of those consumers who are already loyal to the parent brand (Aaker, 1991; Keller, 1993; Hutton, 1997). Loyal consumers have already a prior association and knowledge about the brand or the brand product categories that make them enable to perceive a similarity between the extension and the parent brand or brand category. Brands enable consumers to efficiently encode their functional and emotional values in their minds (Franzen and Bouwman, 2001).

Consumer knowledge and brand extension evaluation

Prior knowledge is the information stored within memory. This variable is considered an important variable influencing consumer behavior. The individual's knowledge of the brand (Klink and Smith, 2001) can affect reaction towards extensions. Mostly Consumer knowledge has been treated as one single variable in previous research. However, two different elements of consumer knowledge, product knowledge and brand knowledge have different effects on information search behavior and brand evaluations (Bei and Heslin 1997; Fiske et al. 1994). 'Product knowledge' refers to information about product categories, either the most general category, or subcategories stored in a consumer's memory, where as 'brand knowledge' refers to consumer knowledge about a brand, including brand name, attributes, benefits, concepts, images, and everything that is associated with the brand (Peter and Olson 2005). Muthukrishnan and Weitz (1991) examine the influence of product knowledge, whereas Broniarczyk and Alba (1994) research the impact of brand knowledge. There have been calls for more studies of consumer knowledge effects in brand extension evaluations (Czellar, 2003; Grime, Diamantopoulos, & Smith, 2002). Thus the purpose of this study is to further examine the roll of two types of consumer knowledge in brand extension evaluations. Thus, we hypothesize that,

H1: Consumers' category knowledge will have a significant positive influence on evaluations of category fit related brand extensions.

H2: Consumers' brand knowledge will have a significant positive influence on evaluations of brand image fit related brand extensions.

Consumers' perception of fit and brand extension evaluation

One of the widely accepted findings from earlier brand extension research is that a perception of fit between the extension and the parent brand and it is found to be the most relevant variable that can highly influence the acceptance of brand extension (Völckner & Sattler 2006). The dimensions of the consumer perceived fit concerns on one hand the brand "product category" and on the other hand the brand "image". The study proposes to obtain the effect of fit Consumers have to perceive some dimension of similarity between parent brand and the extension (Boush et al. 1987; Aaker & Keller 1990; Völckner & Sattler 2006; Ahluwalia 2008). Two general dimensions can be identified underlying the concept of perceived fit: product category fit and brand image fit (Bhat and Reddy, 2001; Grime et al., 2002; Czellar, 2003). Thus, individuals can believe that the new product is physically similar to the other products of the brand (category fit) or coherent with the general brand associations (image fit) (Grime et al., 2002; Czellar, 2003), they are more likely to have a positive attitude towards the extension. Thus, we hypothesize that,

H3: Consumers' perception of fit at category level will have a significant positive influence on evaluations of category fit related brand extensions.

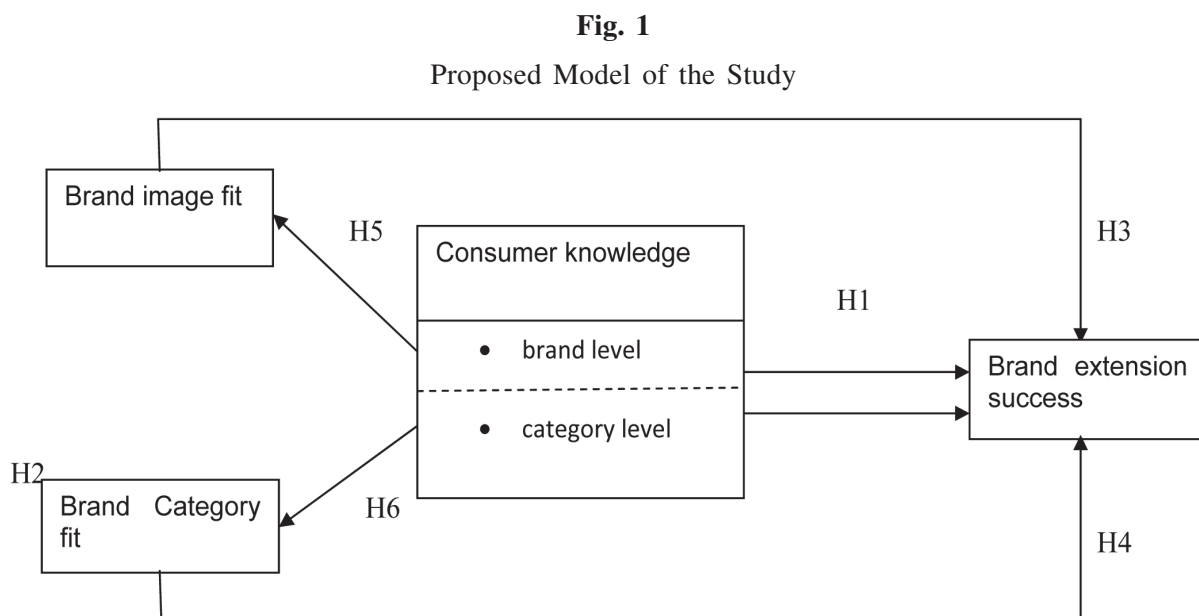
H4: Consumers' perception of fit at brand level will have a significant positive influence on evaluations of brand image fit related brand extensions.

Consumer knowledge impact on fit perception

At the product category level the knowledge includes information regarding technology, usage, components used in the manufacturing process. At the brand level the knowledge includes mainly image or any unique association that is associated with the brand. Especially in brand evaluation, it was found that consumers who choose brands that give more value for the price are knowledgeable about the product category, whereas those who choose famous and more expensive brands consider the consistency between the brand images and their personalities, egos, or interests more than the functional aspects of products (Bei and Heslin 1997). Thus we hypothesize that,

H5: Brand knowledge has a stronger positive effect on brand level fit perception.

H6: Category knowledge has a stronger positive effect on category level fit perception.



Objectives of the Study

This study attempts to contribute to the brand extension literature by exploring the effects of the category knowledge and brand knowledge, brand category fit and brand image fit separately in the consumers brand extension evaluation process.

It is expected to provide a deeper understanding of whether and how different kinds of consumer knowledge affect the consumers' different fit perception between a new extension and its parent brand.

Table: 1
Selected Brands and Their Extensions

Parent Brands	TITAN WATCH (brand category fit extension)	APPLE COMPUTER (brand image fit extension)
EXTENSIONS	Bracelet	Music system

Questionnaire development and main data collection

Target Respondents: A student sample was used as it is convenient to obtain and the response rate are usually high. The research sample consisted of 258 respondents, all having preferences for using branded products. We have made a questionnaire for each of the two parent brands and conducted the study in Jaipur. Questionnaire was distributed among business students in the various places of Jaipur. For Titan bracelet 168 and Apple music system 136 questionnaires were collected, 16 had to be removed due to non-response biases. Two hundred and two complete questionnaires were collected for Titan bracelet and Apple music system.

Measurement and Scaling

Dependent variable – Overall evaluation of

brand extension simply to measure the reactions towards the proposed brand extension measured based on the items used by Bergkvist and Rossiter (2007).

Independent variable – Perceived similarity at category and brand level evaluated on a five point likert scale anchored from “not at all similar” through to “very similar”.

Consumer knowledge at category and brand level evaluated on five point likert scale with the ends “totally disagree” and “totally agree”. It consists of two major components: familiarity and expertise (Alba & Hutchinson 1987).

Analyses

Responses were analyzed using SPSS software and showed a Cronbach's higher than 0.7. It shows that questionnaire is reliable. Results are shown in table 2.

Table 2
Average Cronbach Alpha Value for the Items

Cronbach's alpha	N of item
.702	5

Regression analysis for the individual sample

Multiple Regression analysis was employed to test the proposed hypotheses. The model will be tested in different phases. First, it will test the impact of different consumer knowledge and fit perception on brand extension success considering two extensions separately. Again, we will test the impact of consumer knowledge at brand level and category level on consumer fit perception at brand and category level. Two regression models were developed to test the proposed hypotheses.

Dependent variable – overall attitude towards category related brand extension - Titan bracelet

Table 3

Regression Model Tested the Impact of Brand Category and Brand Image Knowledge on Consumer Attitude Towards Brand Extension Evaluation (Titan)

Independent variables	(Beta coefficient)	t value	Significance
Brand Category knowledge	.297	3.963	.000
Brand image knowledge	.144	1.917	.057

R square value = .107

Table 4

Regression Model Tested the Impact of Brand Category and Brand Image Knowledge on Consumer Attitude towards Brand Extension Evaluation (Apple)

Independent variables	(Beta coefficient)	t value	Significance
Brand Category knowledge	.012	1.127	.899
Brand image knowledge	.335	3.559	.001

Dependent variable – overall attitude towards image related brand extension – Apple Music System.

R square value = .116

Table 3 & 4: Regression model tested the impact of brand category and brand image knowledge on consumer attitude towards brand extension evaluation

Table 5

Regression Model Tested the Impact of Consumer Perception of Fit at Category or Brand Level on Consumer Attitude Towards Brand Extension Evaluation (Titan)

Independent variables	(Beta coefficient)	t value	Significance
Brand Category knowledge	.369	5.407	.000
Brand image knowledge	.349	5.117	.000

Table 6

Regression Model Tested the Impact of Consumer Perception of Fit at Category or Brand Level on Consumer Attitude Towards Brand Extension Evaluation (Apple)

Independent variables	(Beta coefficient)	t value	Significance
Brand Category knowledge	.301	3.785	.000
Brand image knowledge	.396	4.980	.000

Dependent variable – overall attitude towards category related brand extension - Titan bracelet R square value = .344.

Dependent variable – overall attitude towards category related brand extension – Apple Music System.

R square value = .342

Table 5 & 6: Regression model tested the impact of consumer perception of fit at category or brand level on consumer attitude towards brand extension evaluation

Regression analysis for the entire sample

Table 7

Regression Model Tested the Impact of Brand Category and Brand Image Knowledge on Consumer Fit Perceptions in Brand Extension Evaluation at Category Level (Titan).

Independent variables	(Beta coefficient)	t value	Significance
Brand Category knowledge	.336	6.415	.000
Brand image knowledge	.307	5.885	.000

Dependent variable – consumer fit perception of Titan bracelet

R square value = .222

Table 7: Regression model tested the impact of brand category and brand image knowledge on consumer fit perceptions in brand extension evaluation at category level.

Table 8

The Forth Regression Model Tested the Impact of Brand Category and Brand Image Knowledge on Consumers Fit Perception in Brand Extension Evaluation at Brand Image Level (Apple).

Independent variables	(Beta coefficient)	t value	Significance
Brand Category knowledge	.147	2.558	.011
Brand image knowledge	.210	3.497	.001

Table 8: The forth regression model tested the impact of brand category and brand image knowledge on consumers fit perception in brand extension evaluation at brand image level.

Dependent variable – consumer fit perception of Apple music system

R square value = .133

Findings and Discussions

As per the analysis, the findings reveal that, in evaluating brand extensions, consumers use brand category knowledge when the extension seems to be more category related (H1) and brand image knowledge when they found image uniformity between the brand and the extension

(H2). So, different effects of category knowledge and of brand image knowledge were found in this study. Very favorable reactions occur when brand extensions are made with high brand concept consistency and high product feature similarity for both category-oriented and image-oriented brand

names (H3 & H4). The results also validate the effect of consumer knowledge on fit perception at category level and brand image level. Two of the hypotheses about the positive effect of consumer brand knowledge and category knowledge on brand image and category fit perception were supported (H5 & H6). These results provided some valuable insights for understanding the role of consumer knowledge in consumer fit perception and brand extension evaluations. The findings suggest that category knowledge and brand knowledge have different effects in brand extension evaluations. For a brand image similar extension, the higher the brand knowledge higher the consumer brand image fit perceptions between the parent brand and extended product and when it is brand category related extension, category knowledge has the higher impact on category fit perception.

Implications and Future Scope of the Study

The main strength of this area of study is that brand category and brand image knowledge; consumers fit perception at category and brand levels are treated separately, in brand extension evaluation. This particular study supports the findings from previous research that suggests that consumer knowledge has an impact on consumer fit perceptions in the context of brand extension evaluations (Muthu Krishnan & Weitz, 1991). This study confirms that both kind of consumer knowledge have positive and significant effect on consumer fit perception both at category level and brand level. This is expected the result of this study to provide more empirical evidences for the role of consumer knowledge on consumer fit perception and in brand extension at brand category and image level. A consumer with high brand knowledge tends to perceive higher brand image fit when the extension is consistent with brand image and perceive higher brand category fit when the extension is consistent with brand's most common or known category.

In the literature of consumer brand extension evaluations limited studies have investigated the effects of brand category and brand image knowledge separately. This has led to some confusion in the consumer brand extension evaluation literature – whether these two variables

both effect consumers fit perception or only one of them, and whether they have equal influences or not (Grime et al., 2002). Thus, this study attempts to clarify the confusion in the literature that they have different effect and it depends on extension type whether it is image related or category related. Furthermore, findings of this study may also have implications for marketing practice in the areas of branding, promotion, and positioning of brand extensions. A firm could use different marketing strategies to promote and position their extensions. An extension of an image oriented brand should be promoted and positioned with more brand-related information whereas the promotion of a category related brand extension may include more most common and known category information.

This research may encourage further study in consumer brand extension evaluations considering this particular aspect in different industry and location. This particular study considers direct relationship between consumer knowledge and fit perception but researchers may examine their relationships in other respects in brand extension evaluation.

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DEMOGRAPHIC ANALYSIS OF PATIENT SATISFACTION IN MAJOR HEALTHCARE CENTRES

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Abstract: Healthcare industry today, is a rapidly growing industry. According to Mckinsy & Co. healthcare spending in India will double over next ten years. Its progress has been splendid and is targeting more and more customers. Both public and private hospitals form a significant part of the healthcare industry along with pharmaceuticals and other applied sciences. There are many people in the country who live below poverty line and are even devoid of basic healthcare facilities. The rest of the population excluding the upper class is in a dilemma whether to fall a prey to expensive private hospitals or succumb to mediocre facilities of government hospitals. The study aims at throwing light on the satisfaction levels of patients visiting these healthcare centres in N.C.R. The study considers four major players in the market providing healthcare facilities in the National Capital Region (N.C.R.) and used primary data to fulfil the objectives. Few hypotheses have been formed and tested by using tests like 'z' test and 't' test. The study revealed that there is no significant difference in the satisfaction levels of patients falling in different age-groups and of different occupations and gender, whereas the difference in satisfaction levels of the patients was noted when tests were conducted on the basis of hospitals i.e. public and private hospitals. The findings of the study will not only help the hospitals to improve their services but will also help the future patients to understand what important services to be expected from a hospital and help them in selecting the appropriate hospitals.

Key Words: Service Quality, Patient Satisfaction, Health care centres.

Introduction

Today, in the service sector, the stand of an organisation in the market can be determined by the service it provides, the quality of its service and the satisfaction of the customers availing those services. It cannot be denied that the quantitative parameters such as balance sheets, cash flow statements, ratios, P&LA/c etc. are important to assess an organisation but qualitative analysis along, gives a complete picture. Rather it helps organisations to prepare for their future in a better way and devise policies. Thus it is imperative to find out answers to questions like; what do we mean by 'service'? What is 'quality of service'? What is the nature of 'customer satisfaction'? Service and quality of service are inter-related concepts which are ultimately used to maximize customer satisfaction. The project

undertaken intends to throw light on patient satisfaction levels in four major hospitals in N.C.R. So it is important to understand these concepts in context of the hospitals before we march towards the core of the project.

Service Quality

Service quality is the degree and the direction of discrepancy between consumer's perception and the expectations in the term of different but relatively important dimension of the service quality which can affect their future behaviour. (Parsasuraman, Zeithamal and Berry, 1985)

Quality of service has been studied in the area of business management for the years because the market is more competitive and the marketing management has transferred its focus from internal performance such as production to an external interest such as customer satisfaction and customer's perception of service quality. (Gronroos, 1992)

Quality has been defined in various ways by quality guru's like Juran, Deming, Crosby. Crosby



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holds that conformance to requirement is quality. The essence of this definition as applicable to hospitals, quality may be defined as the ability to satisfy the patients'/customers' requirements and needs to the fullest and be able to replicate this on an on-going basis.

Nature of Patient Satisfaction

People who visit hospitals come from varying socio-economic and cultural backgrounds. Satisfaction from services provided will differ from person to person and even for the same person at different points of time, depending on the mood and mid-set of the same user at a particular point of time. Unlike in the case of manufacturing companies where the goods are manufactured and then sold to customers, in hospitals a patient is a part and parcel of the process that provides the services. The service is created with the involvement of the patient, if there is no patient there can be no service. Thus it should be understood that all improvement at a hospital must have its patients as the focal point and as such patient satisfaction is a good determinant of the quality of services provided by a hospital. It is important for long-term quality development and improvement.

A survey suggested that private healthcare will form a large chunk of spending rising from \$14 billion to \$33 billion in India by 2012. This figure could rise by an additional \$8 billion if health insurance cover is available to the rich and the middle class, according to McKinsey & Co. Since every coin has two sides, the facts stated above are encouraging but not enlightening.

Review of Literature

Patient satisfaction is one of the major parameters or the parameter that determines the success of the hospital concerned. However, in this world of cut-throat competition, it is very difficult to maximize satisfaction levels. Research and surveys are important tools acting as lighthouses which help in guiding the organisations to achieve the desired results or give them direction. Many research and surveys have been carried out to determine patient satisfaction in different hospitals to improve the quality of services provided. Some have given enlightening findings and solutions.

Laurent *et al.*, (2006), the aim of this study was to assess clinical staff's on the results of in-patient satisfaction surveys and use within the quality improvement process. A total of 261 questionnaires were returned and analysed. , 94% of the responders had a favourable opinion of the patient satisfaction surveys. They considered that the patient was able judge hospital service quality, especially in its relational and environmental dimensions. The specific results the department were less well known than the overall hospital (60 versus 76%). These results were formally discussed the department according to 40% of responders; 40% declared these data resulted in improvement actions and considered they led to modifications in their behaviour with patient.

The study of Ruth *et al.*, (2008) identified the factors that explain patient satisfaction with general practice physicians and hence that may drive patients' choice of practice. He results depicted that confidence and trust in the doctor is the most important factor in explaining the variation in overall patient satisfaction (predicting 82% of satisfaction levels accurately). The seven variables relating to the relationship between patient and doctor have stronger explanatory power than other aspects of the general practitioner (GP) experience. The variables with the lowest overall predictive power are whether the patient was told how long they would have to wait in the surgery (72%), the length of time they had to wait after their appointment time (74%) and ability to get through to the surgery on the phone (74%).

Jawahar (2007) intended to know the satisfaction level of patients and also get a feedback about the services provided in the outpatient departments. Hence this study was undertaken with objectives to study the awareness of patients about the outpatient department services, to evaluate the performance of the services in the patient's perspective, and to identify the problems of the patients and suggest measures for improvement in Sree Chitra Tirunal Institute for Medical Sciences & Technology (SCTIMST). It was found that majority of the patients are satisfied with the services provided. They were satisfied with the guidance, logistic arrangements, support services, nursing care, Doctor's

consultation etc. wherever there is delay in consultation; it is to be explored to elicit the lacunae. It is worthwhile to note that there is scope for improvement of the Out Patient Department Services. Therefore it can be concluded that the OPD services form an important component of Hospital services and feedback of patients are vital in quality improvement.

Rao *et al.*, (2006) developed a reliable and valid scale to measure in-patient and outpatient perceptions of quality in India and identified aspects of perceived quality which have large effects on patient satisfaction. The association between patient satisfaction and perceived quality dimensions is examined in Primary health centers, community health centers, district hospitals, and female district hospitals in the state of Uttar Pradesh in north India. A 16-item scale having good reliability and validity was developed. Five dimensions of perceived quality are identified—medicine availability, medical information, staff behavior, doctor behavior, and hospital infrastructure. Patient perceptions of quality at public health facilities are slightly better than neutral. Multivariate regression analysis results indicate that for outpatients, doctor behavior has the largest effect on general patient satisfaction followed by medicine availability, hospital infrastructure, staff behavior, and medical information. For in-patients, staff behavior has the largest effect followed by doctor behavior, medicine availability, medical information, and hospital infrastructure.

The aim of the project by Li (2008) was to conduct an anonymous postal survey of clients' satisfaction with Breastfeeding Education and Support Services (BESS). An anonymous survey was posted on 16 November 2005 and again on 31 January 2006, to all women who had attended BESS in September 2005. The response rate was 60.5% (78/129). Eighty per cent (62/78) of the respondents attended day-stay, 33% (26/78) attended short-stay and 15% (12/78) attended the outpatient clinic. The percentage of women who responded "strongly agree" to the statement "Overall, I am satisfied with the services" was 49% (35/72) and 50% (6/12) for those who went to day/short-stay and the outpatient clinic respectively. Overall, 56% of all respondents

responded that the quality of BESS was "better than expected". The most common breastfeeding problem reported was difficulty attaching the baby to the breast, followed by nipple damage, low milk supply and painful feeding. The results found that BESS seems to have provided a satisfactory service to most clients. Most respondents were clearly satisfied with the support given by the IBCLCs and have also responded that the staff were professional and knowledgeable in their field of work.

Suzanne (1995) conducted a patient satisfaction survey on the cardiothoracic surgical ward (CW 16) between June and October 1993. The survey was designed to assess the level of satisfaction patients had with their hospitalisation on CW 16 both preoperatively and postoperatively and also with their visit to the preadmission clinic (if applicable). These questionnaires were distributed to patients either the day before their anticipated discharge from CW 16 or the morning of the day of discharge. Patients were informed that their responses would remain anonymous. The survey results proved most informative. Significantly, the responses to the preadmission clinic were overwhelmingly positive with many patients stating that attendance at the clinic dispelled their fears and worries. Two particular areas of nursing care were shown to need improvement. These were patient education on the topic of warfarin therapy and the promotion of patient/family attendance at the ward-based discharge education sessions. Based on the results of the survey, efforts will be made to extend patient/family attendance at both the preadmission clinic and ward-based discharge education sessions, and to improve the education of patients on the ward with respect to the warfarin regimen. Interventions aimed at reducing the level of noise on CW 16, particularly at night and during the rest period from 1.00 - 3.00 pm.

Syed *et al.*, (2007) attempted to identify the determinants of patient satisfaction with public, private and foreign hospitals. A survey was conducted involving inpatients in public and private hospitals in Dhaka City and patients who have experienced hospital services in a foreign country. Their views were obtained through exit polls using probability and non-probability (for

foreign hospital patients) sampling procedures. Regression models were derived to identify key factors influencing patient satisfaction in the different types of hospitals. Doctors' service orientation, a composite of 13 measures, is the most important factor explaining patient satisfaction.

After going through extensive literature, it was found that although many studies have been conducted on satisfaction of patients towards hospitals, few studies were found in Indian context. This study is concentrated on Indian hospitals and the attitude of Indian patients towards these hospitals and services provided by these hospitals. The study undertaken has certain objectives which gives it guidelines. Following are the objectives:

- To prepare a self-made questionnaire.
- To ascertain the satisfaction levels of patients on the basis of 'hospitals' i.e. public sector vs. private sector hospitals.
- To ascertain the satisfaction levels of patients on the basis of 'age-groups'
- To ascertain the satisfaction levels of patients on the basis of 'occupation'.
- To ascertain the satisfaction levels of patients on the basis of 'gender'.
- To open new avenues of research in the healthcare industry.

Research Design and Methods

The study is exploratory and descriptive in nature. The population of the study included people who have visited the mentioned hospitals namely: All India Institute of Medical Sciences (AIIMS), Apollo Hospitals and Clinics, Max Healthcare Centres, Fortis Hospitals. The sampling frame incorporated the list of these patients in the respective hospitals. Individuals visiting the sample hospitals have been considered as the sampling element selected through Judgemental sampling technique (non-probability technique). The sampling size of the study was 117 patients. Data has been collected through a self made questionnaire which includes relevant variables.

Tools Used For Data Analysis

- **Item to total Correlation:** To check the consistency of the questionnaire.
- **Reliability Tests:** To check the reliability of data item of the questionnaire.
- **Z-Test:** To compare the significance difference between two variables.
- **T-Test:** To compare the significant difference between two variables.

Hypothesis formed

The following hypotheses were formed to fulfil all the objectives of the study:

- Ho1:** There is no significant difference in the satisfaction levels between patients visiting Fortis and Apollo.
- Ho2:** There is no significant difference in the satisfaction levels between patients visiting Apollo and AIIMS.
- Ho3:** There is no significant difference in the satisfaction levels between patients visiting AIIMS and Max.
- Ho4:** There is no significant difference in the satisfaction levels between patients visiting Max and Fortis.
- Ho5:** There is no significant difference in the satisfaction levels between patients visiting Max and Apollo.
- Ho6:** There is no significant difference in the satisfaction levels between patients visiting AIIMS and Fortis.
- Ho7:** There is no significant difference in satisfaction levels of patients between age-groups 'below 20' and '20-35'.
- Ho8:** There is no significant difference in satisfaction levels of patients between age-groups '35-50' and '20-35'.
- Ho9:** There is no significant difference in satisfaction levels of patients between age-groups '35-50' and '50-65'.
- Ho10:** There is no significant difference in satisfaction levels of patients between age-groups 'below 20' and '50 and above'.
- Ho11:** There is no significant difference in satisfaction levels of patients between age-groups 'below 20' and '35-50'.
- Ho12:** There is no significant difference in satisfaction levels of patients between age-groups '50 and above' and '20-35'.

Ho13: There is no significant difference in satisfaction levels between patients who are self-employed and those who are salaried.

Ho14: There is no significant difference in satisfaction levels between patients who are business persons and those who are salaried.

Ho15: There is no significant difference in satisfaction levels between patients who are business persons and those who fall in 'others' category.

Ho16: There is no significant difference in satisfaction levels between patients who fall in 'others' category and those who are self-employed.

Ho17: There is no significant difference in satisfaction levels between patients who are self-employed and those who are business persons.

Ho18: There is no significant difference in satisfaction levels between patients who fall in 'others' category and those who are salaried.

Ho19: There is no significant difference in satisfaction levels of male and female patients.

Scope of the Study

This project is meant to understand the major factors affecting patient satisfaction in the healthcare industry. Study has tried to compare services among major hospitals in N.C.R. Comparison is made on the basis of hospitals which are- AIIMS, Fortis Hospitals, Max Healthcare Centres and Apollo Hospitals and Clinics; on the basis of age-groups of patients which are- below 20, 20-35, 35-50 and above 50; on the basis of occupation of patients which has following the categories- salaried, self-employed, businesspersons and others; on the basis of gender- male and female. This helps us to find varying satisfaction levels when comparison is done with different parameters. Further it would lead to the understanding of specific patient type psyche.

Study would help to know that which organisation provides better services, to an extent. An understanding would develop regarding the factors which affect patient satisfaction to a greater degree. It would also help to know factor-wise satisfaction of patients.

Analysis and Discussion

After collecting the data with the help of

questionnaires filled, various tests were applied. These statistical tools led to analysis of the data and further the findings and conclusions discussed in later chapters.

Consistency Measure

First of all consistency of all the items in the questionnaire were checked through item to total correlation. Under this, correlation of every item with total was measured and the computed value was compared with standard value (i.e.0.1580). If the computed value was found less than standard value than whole factor / statement was dropped and was termed as inconsistent. All the items were consistent and thus accepted. No item was dropped.

Reliability

Then reliability test was carried out using SPSS software and the reliability test value of alpha was found to be 0.796. It is considered that the reliability value more than 0.7 is good and it can be seen that the reliability methods applied has the reliability value is quite higher (Table 2) than the standard value, so the scale was highly reliable.

Validity

Face validity was applied to the questionnaires and it was found to be very high.

T-Test

On the basis of hospitals

T-test was applied to test the hypotheses Ho1, Ho2, Ho3, Ho4 Ho5, and Ho6 to find out the significant differences in the satisfaction levels between patients visiting different hospitals. By comparing the t-value and table value (critical value) (refer table 3), it was found that the satisfaction level of patients of all the sample hospitals is significantly different from one another except the satisfaction levels between patients visiting Apollo and AIIMS. The reason for this might be that both these hospitals cater almost the same category of services, being the closest competitors. Both these hospitals carry a good brand image making the patients feel that they are in safe hands. The time taken to start the treatment in these hospitals is less as compared to other sample hospitals (viz. Max and Fortis) to diagnose the problem and start the effective

treatment.

On the Basis of Age-Groups

T-test was used to test the hypotheses Ho7, Ho8, Ho9, Ho10, Ho11, and Ho12 to find out the significant differences in the satisfaction levels between patients of different age groups. By comparing the T-value and the table value (critical value) (refer table 4), it was found that the table value is more than the T value in all the cases which clearly states that the null hypothesis (from Ho7 to Ho12) is accepted and there is no significant difference in the satisfaction levels of the patients of different age groups. This means that the satisfaction levels of the patient does not get affected taking age as a factor. There seems to be some other factors that affect the satisfaction level of the patients.

On The Basis Of Occupation

T-test was used to test the hypotheses Ho13, Ho14, Ho15, Ho16, Ho17, and Ho18 to find out the significant differences in the satisfaction levels between patients of different occupations. By comparing the t-value and the table value (critical value) (refer table 5), it was found that the table value is more than the T value in all the cases which clearly states that the null hypothesis (from Ho13 to Ho18) is accepted and there is no significant difference in the satisfaction levels between patients of different occupation.

Z-Test

Z-test is one of the statistical tools applied here to find out the significant differences in the satisfaction levels of male and female patients. If the value of Z is lesser than 1.96 at 5% level of significance, then the hypothesis would be accepted and if it comes out to be greater than 1.96 at 5% level of significance, then it would be rejected. The value of Z is less than 1.96 i.e. 0.0129 (refer table 6). Thus the hypothesis is accepted and it can be said that there is no significant difference in the satisfaction levels of male and female patients.

Conclusion

The tests conducted on the basis of age-groups reveal that there is no significant difference in the satisfaction levels of patients falling in

different age-groups and of different occupations. The same can be said about male and female patients. It can be concluded that the hospitals provide similar kind of facilities and services to their patients irrespective of their age-groups, occupations and gender. However, there seems to be a difference in satisfaction levels of the patients when tests were conducted on the basis of hospitals. This can be attributed to the fact that every hospital has a clientele or if we see the other way round, every customer/patient has a particular hospital to bank upon. However, the clientele has been shared by AIIMS and Apollo, as seen by the tests conducted. To be more specific may be the patients of these two hospitals could be able to relate well with the doctors then the patients of other sample hospitals as it's not only the medicines or the type of treatment that builds higher satisfaction level but the patients satisfaction level also depends upon the behaviour of doctors, the attention given to the patients, the time taken to start the treatment.

Amidst all the testing and analysis, an aspect that has not been highlighted, is the affordability of the patients. When the patients were asked to fill the questionnaire, the 'overall experience' depended a lot on the 'charges for treatment'. In the current scenario, healthcare facilities are expensive and providers need to focus a little bit more on social welfare. The under privileged cannot afford to go to these large hospitals and rely more on private practitioner or small nursing homes.

There is still a lot of scope for improvement in the healthcare industry in India. This study hopes to act as a small lamp of light along with other lighthouses of research in finding appropriate solutions to the concerning problems.

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Annexure

Table 1:

Showing Statistics of Correlation of Satisfaction

S.No.	Items	Computed Correlation Value	Consistency	Accepted/Dropped
1	Helpfulness & courtesy of staff	0.4409	Consistent	Accepted
2	Waiting time at the billing counter	0.5355	Consistent	Accepted
3	Ease of getting an appointment	0.5187	Consistent	Accepted
4	Information provided	0.3880	Consistent	Accepted
5	Helpfulness & courtesy of the doctor	0.4196	Consistent	Accepted
6	Time spent by the doctor	0.3699	Consistent	Accepted
7	Explanation about diagnosis & treatment by the doctor	0.3320	Consistent	Accepted
8	Your involvement in decision making	0.3798	Consistent	Accepted

9	Maintained privacy during consultation by the doctor	0.2790	Consistent	Accepted
10	Information about health promotion & disease prevention	0.4598	Consistent	Accepted
11	Waiting time for final reports	0.5697	Consistent	Accepted
12	Cleanliness	0.3648	Consistent	Accepted
13	Seating arrangement	0.2389	Consistent	Accepted
14	Courtesy of security staff	0.4327	Consistent	Accepted
15	Services at cafeteria	0.4154	Consistent	Accepted
16	Response to queries	0.4972	Consistent	Accepted
17	Billing accuracy	0.5834	Consistent	Accepted
18	Promptness in discharge	0.5214	Consistent	Accepted
19	Accessibility to doctors	0.4908	Consistent	Accepted
20	Room accommodation & services	0.2970	Consistent	Accepted
21	Overall healthcare facilities	0.2906	Consistent	Accepted
22	Infrastructure	0.4061	Consistent	Accepted
23	Co-ordination of departments	0.6311	Consistent	Accepted
24	Charges for treatment	0.5706	Consistent	Accepted
25	Overall experience	0.5995	Consistent	Accepted

Table 2:

Reliability Statistics

Reliability Statistics

Cronbach's Alpha	N of Items
.796	11

Table 3:
T test Statistics (on the basis of hospitals)

T Test between variables		Mean	Standard Deviation	Standard Error	T-value	Table Value	Significance/Insignificance
Satisfaction levels between patients visiting Fortis and Apollo.	Fortis	71.64	11.32	10.19	4.43	1.9972	Significant
	Apollo	60.16	9.22				
Satisfaction levels between patients visiting Apollo and AIIMS.	Apollo	60.16	9.22	8.03	1.73	2.0021	Insignificant
	AIIMS	56.5	5.96				
Satisfaction levels between patients visiting AIIMS and Max.	AIIMS	56.5	5.96	4.73	2.32	2.0031	Significant
	Max	53.6	3.59				
Satisfaction levels between patients visiting Max and Fortis.	Max	53.6	3.59	8.03	8.7	2.003	Significant
	Fortis	71.64	11.32				
Satisfaction levels between patients visiting Max and Apollo.	Max	53.6	3.59	7.03	2.07	1.9961	Significant
	Apollo	60.16	9.22				
Significant difference in the satisfaction levels between patients visiting AIIMS and Fortis.	AIIMS	56.5	5.96	9.19	5.8	2.0072	Significant
	Fortis	71.64	11.32				

Table 4:
T test Statistics (on the basis of age groups)

T Test between variables		Mean	Standard Deviation	Standard Error	T-value	Table Value	Significance/Insignificance
Satisfaction levels of patients between age-groups 'below 20' and '20-35'.	Below 20	59.85	11.24	11.27	0.65	1.992	Insignificant
	20-35	61.53	11.32				
Satisfaction levels of patients between age-groups '35-50' and '20-35'	20-35	61.53	11.32	10.9	0.102	2.005	Insignificant
	35-50	61.21	10.11				
Satisfaction levels of patients between age-groups '35-50' and '50-65'.	35-50	61.21	10.11	8.8	1.14	2.0326	Insignificant
	50 and above	57.84	7.48				
Satisfaction levels of patients between age-groups 'below 20' and '50 and above'.	50 and above	57.84	7.48	10.22	0.69	2.004	Insignificant
	Below 20	59.85	11.24				
Satisfaction levels of patients between age-groups 'below 20' and '35-50'.	35-50	61.21	10.11	10.9	0.43	2.004	Insignificant
	Below 20	59.85	11.24				
Satisfaction levels of patients between age-groups '50 and above' and '20-35'.	20-35	61.53	11.32	10.26	1.255	2.005	Insignificant
	50 and above	57.84	7.48				

Table 5:
T test Statistics (on the basis of occupation)

T Test between variables		Mean	Standard Deviation	Standard Error	T-value	Table Value	Significance/Insignificance
Satisfaction levels between patients who are self-employed and those who are salaried.	Self-employed	64.13	11.33	10.38	1.55		Insignificant
	Salaried	59.36	9.44				
Satisfaction levels between patients who are businesspersons and those who are salaried.	Business persons	59.28	10.24	9.8	0.02		Insignificant
	Salaried	59.36	9.44				
Satisfaction levels between patients who are businesspersons and those who fall in 'others' category.	Business persons	59.28	10.24	10.3	0.08		Insignificant
	Others	59.07	10.35				
Satisfaction levels between patients who fall in 'others' category and those who are self-employed.	Others	59.07	10.35	10.64	1.86		Insignificant
	Self-employed	64.13	11.32				
Satisfaction levels between patients who are self-employed and those who are businesspersons.	Self-employed	64.13	11.33	10.74	1.56		Insignificant
	Business persons	59.28	10.24				
Satisfaction levels between patients who fall in 'others' category and those who are salaried.	Others	59.07	10.35	10.06	0.116		Insignificant
	Salaried	59.28	10.24				

Table 6: Z test Statistics (on the basis of gender)

Z Test between variables		Mean	Standard Deviation	Standard Error	Z-value	Table Value	Significance/Insignificance
Satisfaction levels of male and female patients.	Males	2.437	0.458	0.077	0.0129	1.96	Insignificant
	Females	2.436	0.421				

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We, the authors hereby declare that the manuscript is the original piece of work and is not sent for publication or accepted or under review neither process nor published elsewhere.

SELECT BIBLIOGRAPHY ON LEADERSHIP AND LEADERSHIP DEVELOPMENT (M-Z)

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For the purpose of providing a direction to the research on “leadership” and “leadership development” a humble attempt has been made to collect, edit and present bibliography on the subject concerned. Already two parts of the bibliography, arranged in alphabetical order, have been published in the last two issues. This is in continuation of the two parts published earlier.

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