

Consortia

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Competency Gap Analysis among the Employees of Private Sector Banks -
A Study with Special Reference to Ernakulam District

Keerthy T. R, Dr. Biju M.K



School of Management and Business Studies
Mahatma Gandhi University

Priyadarsini Hills P.O., Kottayam, Kerala, India - 686 560

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About SMBS

School of Management and Business Studies is a regular statutory Department for Management studies in Mahatma Gandhi University. The School had a humble beginning on 25th March 1999 with a two year full-time MBA program for the management aspirants with the objective of moulding enterprising youth into career oriented and competent management professionals. With dedicated and high calibre professional expertise and state-of-art infrastructure, the institution imparts the best of theory and practical knowledge to carve a niche for itself in the challenging two year MBA, M.Phil and Ph.D programmes on Management and Business Studies.

The MBA program offered by SMBS is aimed at creating business leaders and entrepreneurs by leveraging on its strength in technology, computing and social sciences. The department is currently engaged in a diverse set of activities including teaching, academic research, management development programs, and public sector projects. The department places emphasis on experiential and process oriented learning. The pedagogical tools include extensive use of case studies, simulation exercises and industry oriented project work. Besides honing up the skills of individual decision making, enough emphasis is laid on developing team skills and value focused decision making. Continuous industry interaction, seminars and live projects are a regular part of the curriculum. Organizational environments are simulated to sharpen the skills of decision-making, leadership and team building. Teamwork, group assignments, case studies, participation in class discussions and real business issues are strong features of the management program at SMBS.



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Dear Readers,

Consortia, the research based journal of School of Management and Business Studies of Mahatma Gandhi University is getting re-launched after a gap. The journal primarily aims at publishing research outputs in the domain of Management studies and related areas. With great pleasure, we present this issue to our readers which contain an eclectic combination of seven research papers. These are from the functional areas such as Finance, HR, Marketing and Operations.

The first paper focuses on the disparity in the credit-deposit ratio of commercial banks between rural and urban areas in Kerala and evaluates the performance of the banks in the area of priority sector lending. The second paper aims at explaining the basic concepts of employee empowerment and its effect on organizational commitment of employees. The next paper is about the influence of internal factors on impulse buying tendency of shoppers in organized retail formats of Kerala. The paper on RFID proposes a mathematical encoding scheme using prime numbers, in order to optimize the storage requirement of continuously moving RFID tags in the supply chain. The next paper emphasises on using benefit needs as criteria to segment the market for star labelled home appliance. The sixth paper outlines various concepts of employee engagement and the relationship between employee engagement and organisational citizenship behaviour of employees among select IT firms in Kerala. The seventh paper attempts to make a competency assessment and analyze the gap between the required and existing skill set among the executive and non-executive employees in private commercial banks in Ernakulam District of Kerala.

We hope that contents of this issue will benefit readers. We would appreciate feedback from our readers with suggestions, comments and critique.

With regards

Editorial Board

SAGGING CREDIT-DEPOSIT RATIO OF COMMERCIAL BANKS IN KERALA

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Abstract

Credit-deposit ratio is one of the key parameters used to assess the contribution done by the banks for the development of the economy. It has been noted that major activities of commercial banks mainly focused on the customers of urban and sub-urban areas. Because of the economic viability of business operation, most of the private sector banks in the State of Kerala delivering banking services suit to the requirements of urban/semi-urban class of society. The present study made an attempt to analyses the disparity in the credit-deposit ratio of commercial banks between rural and urban areas; and evaluates the performance of the banks in the area of priority sector lending. The study found that the commercial banks in Kerala have been fulfilling the minimum requirements of priority sector lending norms of the Reserve Bank of India. But, it was observed that there was significant difference in the credit-deposit ratio of rural versus urban areas between public sector banks and private sector banks. Similarly, substantial differences in the priority sector lending have been observed between public and private sector banks.

Keywords: Commercial Banks, Credit-Deposit Ratio, Priority Sector Lending.

1. Introduction

Commercial Banks enjoys a special privilege of credit creation by multiple expansions of deposits. *Credit-Deposit* (C-D) Ratio was used by the Reserve Bank of India (RBI) to measure the efficiency of credit creation capacity of the commercial banks. C-D Ratio is also referred to as *Loan-to-Deposit* ratio, as it reflects total advances as a proportion of total deposits and thus measures the spread between outflow and inflow (thereby indicating efficiency of credit creation). Credit-Deposit ratio of Commercial Banks has many-folds significance. Primarily, it is a measure of the utilization of resources by the banking system. Conversely, it is a measure of liquidity of the banking system. Moreover, the ratio is an important tool of monetary management; magnitude of the ratio shows management's aggressiveness to improve income by higher lending operations. C-D ratio of commercial banks depicts different dimensions on the financial performance the banks as well as mobilisation and utilisation of funds among different segments of market. A higher C-D ratio is also considered as alarming situation because it creates some issues in the area of Assets-Liability Management and Capital Adequacy of the banks. Moreover, this ratio signifies the role of the banks to manage the resources/funds from surplus areas to deficit areas in order to achieve a balanced regional development across the country.

2. Statement of Problem

The performance of Commercial banks in Kerala in respect of C-D ratio has been a widely discussed subject among the policy making bodies and other stakeholders since last decade. This issue has been raised due to the existence of low C-D ratio among the banks, and lack of willingness of the banks to grant more loans and advances to the priority sectors of the economy. But, on the banker's side, there are some justification for this phenomenon such as higher rate of Non-performing assets (NPA), lack of feasible projects, uncertainty of agriculture and allied activities etc. However, recently the situation has been changed; the C-D ratio of Commercial banks in Kerala is comparable to all-India level, and which maintains above the minimum level prescribed by the RBI. But, during the financial year 2014-15, the C-D ratio of the banks had been declined by 0.29 basis points, and wide disparity in the C-D ratio between public versus private sector banks; and rural and urban areas. In this context, an attempt has been made to analyze the C-D ratio of Commercial banks in Kerala between rural versus urban areas; and public versus private sector banks. The study also evaluates the performance of the banks in the area of priority sector lending by comparing the results between localities and bank groups. It also examines the growth in deposits and advances by the banks over the years within the State.

3. Data base and Methodology

The study is based on the secondary data collected from the reports and minutes of State Level Bankers' Committee (SLBC), Kerala, 2015. It also used the data from various periodicals, books, journals and working papers related with the subject. The methodology adopted for the study was descriptive and analytical in nature. The discussion were made on the basis of various parameters such as volume of deposits, growth in deposits, volume of loans and advance, growth in advances, priority sector lending, C-D ratio, and growth in C-D ratio. In addition to this, an investigation has been made to compare the C-D ratio with national average, and extent of targets accomplished by the banks. The performance status of commercial banks in Kerala as on 31st march 2015 has been considered for the in-depth study.

4. Review of Literature

After making an elaborate study on the causative factors behind the poor credit-deposit ratio in the state, Studies concluded that, "The facts of the case do not seem to suggest a negative attitude of banks." Poor CD ratio is not causative factor for the lack of industrial development of the State, but is its consequence. Analyzing the causes behind the poor CD ratio reveals that the State has almost 50 per cent higher number of bank deposit accounts opened against the national average. While Kerala has 646 deposit accounts opened for 1,000 of its population, the national average is 417 accounts. States such as *Chhattisgarh* and *Bihar* have just half the national average. Even in the number of credit accounts opened, Kerala is far above the national average. While there were 51 credit accounts opened for every 1,000 population of the country, in Kerala 116 accounts were

opened for a similar number of the population. Just *Chandigarh* and *Delhi* were above the State in the number of credit accounts opened. *Chhattisgarh* and *Bihar* were at the bottom of the pile. The national average in credit amount per account is about Rs 100,000, while Kerala has around Rs 50,000 per account. In short, the low CD ratio of the State is not because of small number credit accounts opened; rather it is because the average amount in such accounts remains relatively small. The low credit amount is owing to the lack of credit deployment in industry, trade and finance. In particular, the credit amount per account in industry is very low largely because of higher share of food manufacturing and processing, other industries, and construction which report low amounts of credit per account everywhere in India- in the total. Further, a comparison of the amounts per credit account in the small-scale industries with industry as a whole suggests that most of the industries in Kerala are no larger than small-scale industries (Narayana, D, 2003). A study has been conducted to examine the progress and performance of commercial banks on the priority sector lending; and targets accomplished by the banks (Vimala, P, 2003). It also analyzed the growth in deposits and loan portfolios of the banks for the development of the economy.

The study conducted in the North- Eastern Region (NER) identified three basic issues in NER: (i) low CD ratio, (ii) non-availability of hassle-free credit, and (iii) complexity of procedures for opening of bank accounts. The C-D ratio of the NER as a whole (as also of the individual States) was far below the national average, which was a matter of concern. To improve the C-D ratio in the region, the banks might like to consider funding of certain major infrastructure projects, particularly in the areas of toll roads, toll bridges, power plants, industrial park, Special Economic Zones, urban water supply scheme, etc. (Report of the Committee of Financial Sector Plan for North- Eastern Region, 2006). The study found that C-D ratio, non-interest income, spread, NPA as a percentage of net advances, provisions and contingencies, operating expenses, business per employee and profit per employee are the major determinants of profitability of banking in India (Bodla & Verma, 2007). It had been found that, C-D ratio of Urban Co-operative Banks (UCB) in Uttar Pradesh has gone up during the study period, possibly due to more and more advances to priority sector and weaker sections (Kulshrestha, 2009). The study on the factors influencing *priority sector lending* by Commercial Banks; two of the variables, viz., mounting overdue and C-D ratio happened to be the most prominent factors affecting deployment of bank credit to priority sector (Ahmed, 2010).

The study indicates the presence of a significant but indirect relationship between C-D ratio of Scheduled Commercial Banks and State Co-operative Banks (Hooda, 2011). The study had made to examine that vulnerability to financial crisis force banks to reduce their Credit-Deposit ratio. It has been observed that C-D ratio had an increasing trend for SBI and its associate's banks, but a declining trend for nationalized banks, other scheduled commercial banks and foreign banks (Siraj, & Pillai, 2011). In order to remain highly competitive in the present environment, banking organization should fully concentrate towards the

improvement of C-D ratio. All out efforts to grant credit and ensure their recovery should be made to maintain the highest C-D ratio, which is considered to be one of the most important factors to judge banking performance (Shiralshetti, 2012). An attempt has been made to studying the differentials, if any, in Credit-Deposit (C-D) ratio of Scheduled Commercial Banks among 17 major Indian states; and extent of instability (through two alternative measures) among C-D ratios, as well as convergence among the states with respect to the ratios. It also examined the nature and strength of interrelationship between C-D ratio and aggregated/disaggregated income of the Indian states. The study observed that there had existed very wide variations in C-D ratios of scheduled commercial banks among the states. Further, the states associated with higher per capita income, higher share of non-primary sectors in income, and, lower population density exhibited a tendency to have a larger C-D ratio (Amarjit Singh Sethil, & Anu Bajaj, 2013). Evidently, the reviewed studies point towards Credit-Deposit ratio having been used as an important indicator of the profitability and activity of commercial banks in a given area. Nevertheless, there have been inter-bank and inter-state disparities in the ratio, thereby providing a justification in favour of carrying out the present investigation.

5. Results and Discussions

The present study analyses the performance of commercial banks in the area of deposit mobilization and credit creation from different segment of market. So, the analysis has been done by considering different variables that influences the C-D ratio.

5.1 Growth in Deposits

The total deposit mobilized by the banks mainly constituted by domestic deposit and Non-resident (NR) deposits. It is evident that the total deposit mobilized by the commercial banks has been significantly increased from Rs. 91,697 crores to 3, 19,890 crores over the eight financial years ending 31st march 2006 to 2015 by recording an overall growth rate of 16.9 per cent. The domestic deposits constitute an average of 70% of total deposit mobilized by the banks (Table 1). The growth of deposit from both domestic and NRI shows similar trends during the period (Figure 1, 2 & 3). While analyzing banking group-wise distribution of deposits mobilized by the banks, it was found that both public and private sector banks were playing major role and equal share in the effort; and State Bank Group accounts 33 percent of contribution. The contribution from semi-urban, and urban areas constitute 56 per cent and 40 per cent respectively. The share of rural area accounts only a negligible portion (04 per cent) of total deposits mobilized by the banks (Table 2).

Table 1: Sectoral Growth of Deposit from March 2007 to March 2015

(Rs. in Crores)

Type of deposit	March 2007	March 2008	March 2009	March 2010	March 2011	March 2012	March 2013	March 2014	March 2015
Total Deposit	91697	105488	130350	143404	161562	197557	229148	279655	319890
Domestic Deposit	58394	75599	93331	106518	123872	149103	162958	185772	210287
N R Deposit	33303	29889	37019	36886	37690	48454	66190	93883	109603
% Share of Domestic Deposits	63.68	71.67	71.60	74.28	76.67	75.47	71.11	66.42	65.74

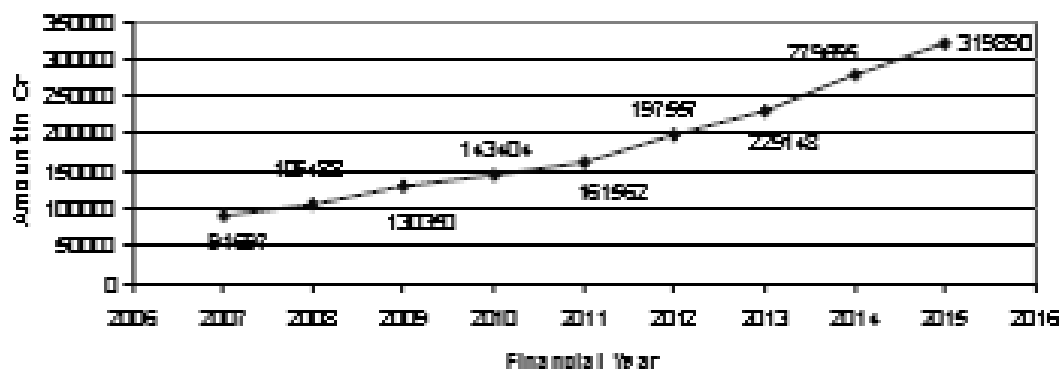
Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala.

Table 2: Rural-Urban Wise Distribution of Deposits of the Banks as on 31/03/2015

(Rs. in Crores)

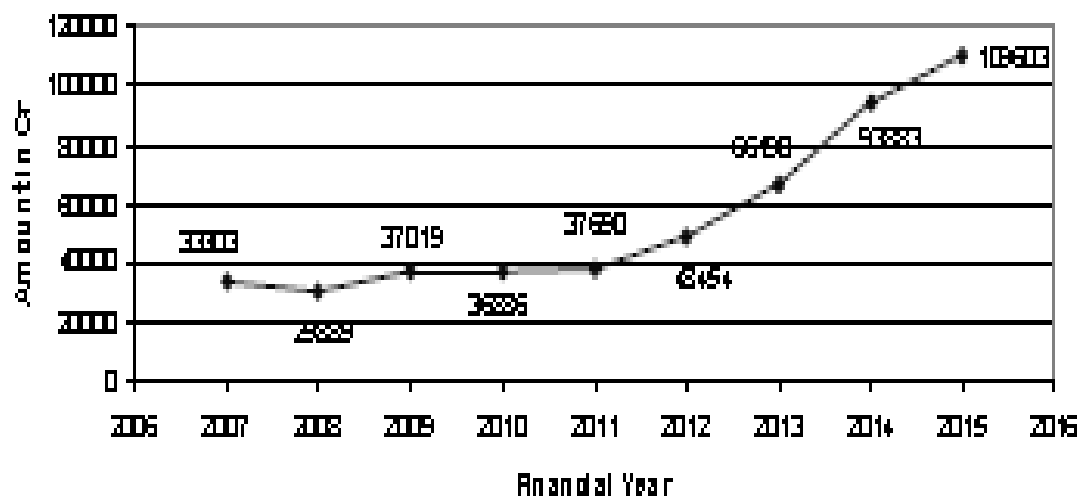
Banking Group	Total deposits				Percentage Distribution				Share of Banking Group in Total Deposits
	Rural	Semi-Urban	Urban	Total	Rural	Semi-Urban	Urban	Total	
State Bank Group	3524	61845	40635	108004	3	58	38	100	33
Nationalised Banks	2589	45781	41411	89761	3	51	46	100	28
RRB	1064	6086	1482	8582	12	71	17	100	3
Private Sector Banks	5089	66454	43999	115543	4	58	38	100	36
TOTAL	12247	180167	127476	319890	4	56	40	100	100

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Figure 1: Growth in Total Deposit from the Year 2006 to 2016

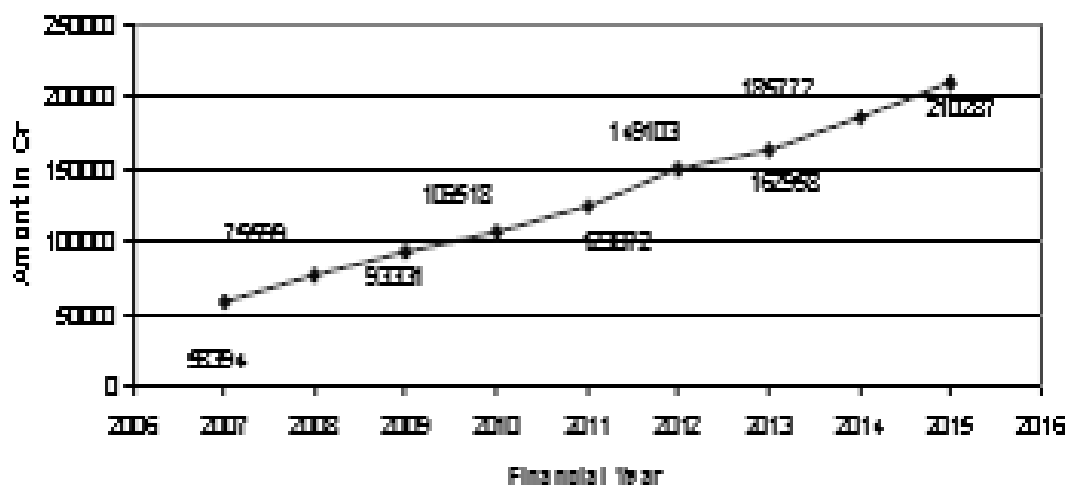
Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Figure 2: Growth in NR Deposit from the Year 2006 to 2016



Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Figure 3: Growth in Domestic Deposit from the Year 2006 to 2016



Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

5.2. Growth in Advances

The credit creation capacity of the commercial banks reflects on the total volume of loans and advances granted during the period. The study revealed that the total amount of advances has been increased from Rs. 51919 crores in March 2006 to Rs. 218706 crores in March 2015 by recording an overall growth rate of 19.69 per cent (Table 3). Both public and private sector banks had contributed equal and significant share in the total advances granted during the periods. Geographic distribution shows that semi-urban and urban areas represented by 49 and 47 per cent respectively in distribution of loans and advances during the period (Table 4).

Table 3: Growth in Loans and Advances of Commercial Banks in the State from March 2006 to March 2016

(Rs. in Crores)

Parameter	Total Advances Outstanding over the Years									
	March 2006	March 2007	March 2008	March 2009	March 2010	March 2011	March 2012	March 2013	March 2014	March 2015
Total Advances	51919	64273	75305	82819	96987	121980	149293	175087	192010	218706
% Growth over the previous fiscal	26.79	23.79	17.16	9.97	17.11	25.77	22.39	17.28	9.67	13.90

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Table 4: Rural-Urban Wise Distribution of Loans and Advances in the State by the Banks as on 31st March 2015

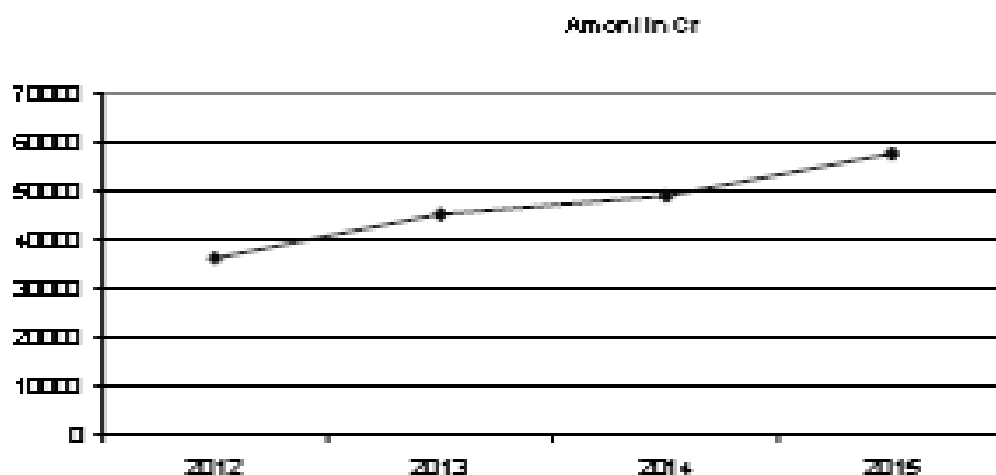
(Rs. in Crores)

Banking Group	Total Advances				Percentage Distribution				Share (%) in Total Advances
	Rural	Semi-Urban	Urban	Total	Rural	Semi-Urban	Urban	Total	
State Bank Group	3734	31421	28020	63175	6	50	44	100	29
Nationalised Banks	2269	36058	36407	74734	3	48	49	100	34
RRB	1511	8302	653	10467	14	79	6	100	5
Private Sector Banks	2134	31119	37077	70330	3	44	53	100	32
Commercial Banks Total	9649	106899	102158	218706	4	49	47	100	100

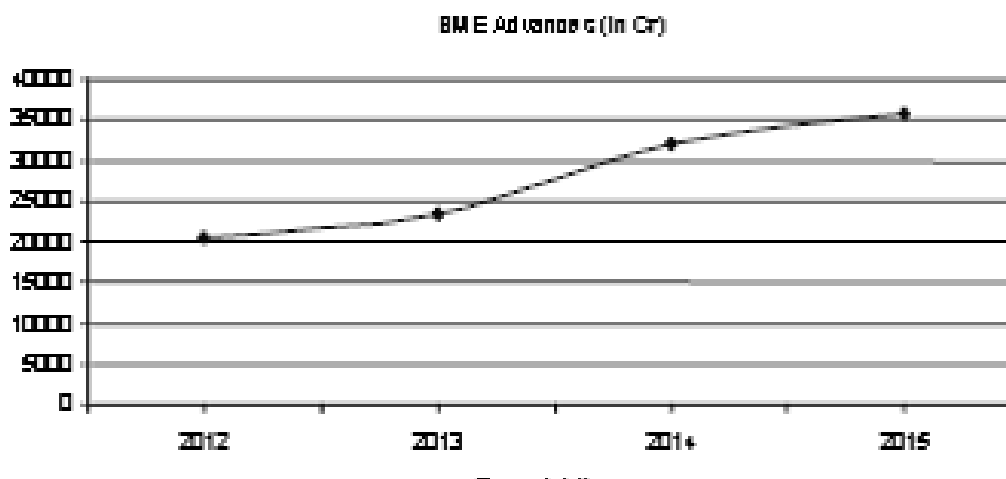
Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

5.2.1 Growth in Priority Sector Lending

The volume of *directional lending* done by the commercial banks in priority sector constitutes a major role in the economic development of Kerala. The analysis of priority sector lending depicts that as against the mandatory norm of 40 per cent of total advances under priority sector as directed by the RBI, the commercial banks has granted 59 per cent of total advances to priority sector during the period. It has been recorded 19.69 per cent of overall growth in agricultural advances from the year 2012 to 2015 (Figure 4). The small and medium enterprises advances also had shown an overall growth rate of 20.51 per cent during the same period (Figure 5).

Figure 4: Growth in Agricultural Advances

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Figure 5: Growth in SME Advances

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

5.2.2 Targets Achieved in Priority Sector Lending

Out of total priority sector lending, 50 per cent of share constituted by primary sector, and 32 percent accounted by the tertiary sector during the financial year ended 31st march 2015. While analyzing goals achieved under priority sector lending reveals that the banks has realized 104 percent of total target contributed by 120 per cent, and 107 per cent of target under primary sector lending and secondary sector lending respectively. The percentage of distribution by the group of banks shows that public sector banks has achieved targets above 100 percent; and whereas the private sector banks had achieved only 88 per cent of the target but it was above the mandatory norm of 40% of total advances. Further, the

growth in outstanding advances under sub sectors of priority sector also recorded an increase in the loans and advances granted to weaker sections, and marginalized sections of the society during last five years from March 2011 to March 2015 (Table 5 & 6).

Table 5: Performance of the Banks under Total Priority Sector Lending as on 31st March 2015

(Rs. in Crores)

Bank/Banking Group	Primary Sector			Secondary sector			Tertiary Sector			Total Priority Sector Advances		
	Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target	Ach.	% Ach.	Target	Ach.	% Ach.
State Bank Group	6770	9408	140.16	2647	4349	164.30	6460	4529	70.10	15076	10366	115.60
Nationalised Banks	10330	14010	135.52	4505	3531	77.02	6600	4092	73.14	21610	22433	103.81
RFB	4099	5406	133.02	1519	1005	66.17	1205	694	54.02	6903	7104	104.00
Private Sector Banks	6391	7025	109.94	3727	3239	86.91	5620	3613	64.20	15746	13070	80.14
Cooperatives	13269	13064	98.46	3595	5076	141.10	15645	17204	109.97	32509	35345	108.72
KFC	0	6	0	349	373	107.04	131	106	80.67	480	405	101.14
Total	40666	49000	120.10	16422	7574	107.01	35037	31037	86.61	93124	97691	104.90
% to Total Disbursement	x	50	x	x	10	x	x	32	x	x	100	x

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Table 6: Growth in Outstanding Loans and Advances under Sub-Sectors of Priority Sector

(Rs in. Crores)

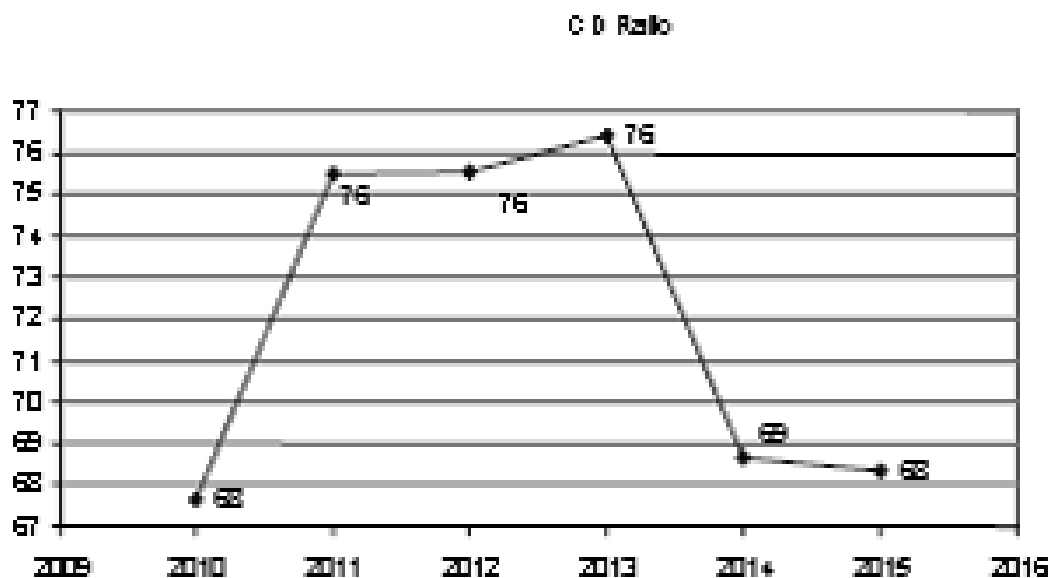
Parameter	Outstanding					Variation			
	March 2011	March 2012	March 2013	March 2014	March 2015	March'11-March'12	March'12-March'13	March'13-March'14	March'14-March'15
Priority Sector Advances	71145	85606	99318	113555	128655	14461	13712	14237	15100
Agriculture Advances	27429	36209	45055	48812	57656	8770	8846	3757	8844
MSE Advances - Priority	16896	20593	23563	32069	35730	3697	2970	8506	3661
Weaker Section Advances	22435	28865	34911	41701	47092	6480	6046	6790	5391
SC Advances	3011	2957	3284	4664	4390	-54	327	1380	-274
ST Advances	553	606	729	1008	1164	53	123	279	156
DRD Advances	24.76	33.98	48.93	66.54	49.43	9.22	9.95	22.61	-17.11

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

5.3 Growth in CD Ratio

The growth in C-D ratio shows an increasing trend from the point of 68 in 2010 to 76 in 2013. But, the year 2013 onwards it had been decreased from the point of 76 to 68.37 at the end of March 2015 (Figure 6). The analysis of the trend in CD ration indicates that both the volume of deposits and loans/advances had been increased from the financial years 2009-10 to 20014-15; but the proportion of increase in the loan/advances of the banks after the financial years 2012-13 were less than the volume of increase in the deposits over the period. It was evident from the incremental C-D ratio over the years i.e. after the end of the financial 2011-12, drastic decline in the ratio has been observed till the end of March 2015 (Table 7). The banking group-wise C-D Ratio shows that regional rural banks had got highest ratio 121.96 per cent at the end of March 2015. The ratio of nationalized banks was 83.26, and State Bank Group accounted by 59.60 per cent. While, the overall C-D ratio of private sector banks was 60.87 per cent, but their geographic distribution shows that the banks has got highest C-D ratio in urban areas represented by 84.27 per cent. However, State Bank Group has got highest achievement in rural areas accounted by 105.98 per cent ((Table 8). The achievements of the banking sector of the State under total priority sector advances, Agriculture Advances, Weaker Section advances and CD ratio are above the national goals (Table 9).

Figure 6: Growth in CD Ratio



Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Table 7: CD Ratio and Incremental CD Ratio from Quarter ending March 2010 to March 2015.

Reporting Quarter	Deposits (Rs. in crores)	Advances (Rs. in crores)	CD Ratio	Incremental CD Ratio
March 2010	143404	96987	67.63	108.53
March 2011	161562	121981	75.50	137.65
March 2012	197557	149293	75.57	75.87
March 2013	229148	175087	76.41	81.65
March 2014	279655	192010	68.66	33.51
June 2014	283928	192561	67.82	40.77
September 2014	292709	204405	69.83	58.99
December 2014	302882	201757	66.61	41.96
March 2015	319890	225303	68.37	66.33

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Table 8: Rural-Urban Wise Distribution of C-D Ratio of the Banks as on 31st March 2015

Banking Group	C D Ratio - Percentage Distribution			
	Rural	Semi-Urban	Urban	Total
State Bank Group	105.98	50.81	68.96	59.60
Nationalised Banks	88.33	78.76	87.92	83.26
RRB	142.01	136.41	45.63	121.96
Private Sector Banks	41.93	46.83	84.27	60.87
Commercial Banks Total	78.79	59.33	80.14	68.37

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

Table 9: Performance versus National goals on Key parameters of CD Ratio

(Figures in percentage)

Sl. No.	Parameter	Goal %	March 2011	March 2012	March 2013	March 2014	March 2015	Variation			
								March'11 - March'12	March'12 - March'13	March'13 - March'14	March'14 - March'15
1	Priority Sector Advances to Total Credit	40	58.32	57.34	56.72	58.14	58.83	-0.98	-0.62	2.42	-0.31
2	Agriculture Advances to Total Credit	18	22.49	24.25	25.73	25.42	26.36	1.76	1.48	-0.31	0.94
3	Weaker Section Advances to Total Credit	10	18.39	19.33	19.94	21.72	21.53	0.94	0.61	1.78	-0.19
4	DRR Advances to Total Credit	1	0.02	0.02	0.03	0.03	0.02	0	0.01	0	-0.01
5	Credit Deposit Ratio	60	75.50	75.57	76.41	68.66	68.37	0.07	0.84	-7.75	-0.29

Source: Reports and minutes of the State Level Bankers' Committee (SLBC) review meeting on 15th and 22nd June, 2015, Kerala

6. Conclusion and Implications

The role of commercial banks in the economic development of Kerala has been a widely discussing topic for last three decades. The commercial banks have been mobilizing a substantial share of deposits from the State. NRI deposits constitute a significant share in the total deposit mobilized by the commercial banks. But, the volume of loans and advances granted by the banks in the State of Kerala during the last decades were not supportive to the development of Kerala. There has been a mismatching between the total deposits mobilized, and total volume of lending done by the banks with in the State. Recently, during the last five years, the C-D ratio of commercial banks has been declined, and the proportions of lending done by the banks were not in accordance with the volume of deposit mobilization. Lack of viable lending opportunities, economic recession, lack of industrialization, uneconomical farming sector, default risk etc are the factors for lower C-D ratio in the State. However, as per the directional/priority sector lending norms from the part of regulatory bodies, the commercial banks in the State has been providing financial assistance to agricultural and allied sectors; micro small and medium enterprises; and weaker and marginalized sections of the society. The performance of the banks in priority sector lending of Kerala during the last decades were above the national level target fixed by the RBI. But, the goals so far achieved by the banks were not sufficient to meet the demand of financial requirements from different sectors of the economy. The banks in Kerala are not willing to provide adequate finance to agricultural and allied sectors; and units of business enterprises going to be started by the new entrepreneurs. The banks should have to accommodate necessary changes in the lending policy by considering uniqueness of socio-economic fabric of the State. Commercial banks in Kerala has greater role in the socio-economic development of the State through the participation and promotion of agricultural loans, MSME loans, venture capital funds, Start-Up loans, and loans to weaker/marginalized sections.

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THE EFFECT OF EMPLOYEE EMPOWERMENT ON ORGANIZATIONAL COMMITMENT

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Abstract

Organizational environment is constantly changing and organizations must be able to have innovation commensurate with change. Now-a-days organizations must be in a position to respond immediately to customer demand. The person, who receives a customer request in practice, should be able to do whatever is necessary to keep customers with them. In other words, employees are forced to think, choose and participate. Empowerment makes organization's needs for high-performance of employees, and also the answer to demands of employees based on independence and introduction. For more than a decade, the organizations have been adopting employee empowerment programmes with an aim of improving organizational commitment. Empowerment plays a significant role in enhancing employee's satisfaction and thus promoting better work performance in their organizations. Building organizational commitment among employees is one of the important factors for ensuring organizational effectiveness. This is because committed employees can lead to favourable organizational outcomes. The purpose of this paper is to discuss the basic concepts of employee empowerment and its effect on organizational commitment of employees.

Keywords: *Employee Empowerment, Organizational Commitment.*

1. Introduction

Every organization aims to produce a workplace where employees truly care about the results it produces and feel ownership of results such that they continually strive to make them better. This attitude and style of organizational activity has been called empowered workplace. Therefore, empowerment of workers is one of the management approaches used by companies in response to the need of meeting a better competition world and to retain employee from leaving their job. The rapidly increasing competition in various markets has urged organizations to focus on their employee and ensure their commitment at workplace. Organizational commitment is considered as one of the foremost important goals of any organization in order to maintain its existence and survival. According to Locke and Latham (1990), highly committed and loyal employees are very important in order to achieve organizational goals. This is because employees with higher degree of commitment toward the organization are perceived to be more productive, harmonious, have better loyalty

towards their work, and possess higher responsibility and job satisfaction (Karim & Rehman, 2012). Moreover, employees with strong organizational commitment are likely to develop emotional attachment to their organizations and feel happy with greater aspirations to make meaningful contributions. Sahoo, Behera, and Tripathy (2010) demonstrated that an employee who is committed to his or her job and career has less intention to take leave or quit, tend to feel satisfied about the job, and has higher intrinsic motivation. In the current and dynamic business environments, various organizations make significant sacrifice to ensure organizational commitment and job satisfaction among their employees for the purpose of maintaining them and improving their productivity. Organizational commitment has been widely accepted to be advantageous for both the organization and its employees as it can reinforce the feelings of belongingness, security of the job, career development, improved compensation, and higher intrinsic rewards (Azeem & Akhtar, 2014). The key benefits to the organization include improved employee tenure, minimum degree of turnover, low cost of training, higher job satisfaction, attainment of organizational objectives, and optimum product and services quality (Mowday, Porter, & Steers, 1982). Additionally, employees with greater level organizational commitments are likely to recommend others to their organization and become part of its members (Sahoo et al., 2010). All of these benefits have made organizational commitment worthy of attention. This paper aims at describing the basic concepts of employee empowerment and its effect on organizational commitment of employees.

2. The Concept of Employee Empowerment

Empowerment has a broad context and it can be viewed through various dimensions and perspectives. It can be viewed as a set of managerial practices aimed at increasing an employee's autonomy and responsibilities thereby enabling them to discharge their job or tasks more effectively and efficiently. Empowerment can also be viewed as an individual's approach to proactive work orientation, thereby increasing the employee's performance and efficiency. Empowerment is a fundamental and an important aspect for successful achievement, productivity, and growth in any business (Hunjra, UlHaq, Akbar, & Yousaf, 2011). Empowerment is the mechanism of giving an employee the authority to make decision and is often allied with the distribution of responsibility from managers to other employees (Saif & Saleh, 2013). Empowerment is a process that provides employees with autonomy through sharing of correct information and the provision of control circumstances that affect work performance of the organization, by rewarding employees for contributions made and with the power to make influential decisions being vested in employees (Lashley, 1999). Empowerment is a process of enabling the workers in the level of non-managerial in the organization. Furthermore, empowerment enables the workers to apply their ability to maximize in order to help the group or organization. Empowerment is also defined as the process of enabling and authorizing individuals to think, behaves, take action and decision and control work autonomously. Menon (1995) surveyed 311 employees in a company and found that greater job autonomy and meaningfulness of the job

led to greater perceived control and greater empowerment. He found that the greater the empowerment the greater was the motivation to work among employees which led to less job stress and increased employee commitment to organizational goals. Employee empowerment is regarded as a motivational practice that aims to increase the performance by increasing the opportunities of participation and involvement in decision making. It is mainly concerned with developing trust, motivation, participating in decision-making, and removing any boundaries between an employee and top management (Meyerson & Dewettinck, 2012). Employee empowerment activities like self-managed teams, total quality management, and quality control circles are implemented with the objective of increasing employee productivity and innovation. Many authors and researchers like Kanter (1977), Block (1987), Sullivan (1994), Vogt and Murrell (1990) and Menon (1995) viewed empowerment from the perspective of the leader's role in empowering employees. This means that managers adopt the leadership style of coaching to help employees solve problems and empower them through delegation and providing latitude for decision making.

Foster-Fisherman and Keys (1995), Thomas and Velthouse (1985) and Conger and Kanungo (1988) looked at empowerment from the individual perspective. The individual perspective refers to the ability of individual to influence his own behaviour or having "Self-Empowerment". Landes (1994), Sims (1986), Rothstein (1995) and Gorden (1995) see collaboration and teamwork as a form of empowerment while Gilbert (1993), Westphal, J D (1997) and Ward (1993) found it critical to change the processes of work within an organization to achieve employee empowerment. Against these multi-dimensional perspectives on empowerment, most of the empowerment literature reviewed concludes that an empowered workforce will lead their organization to achieving a competitive advantage. In other words, there is a positive relationship between empowerment and performance. Therefore, for companies to be successful, Ayupp and Chung (2010) emphasized that empowerment must involve management practices that adopt an open communication and sharing of knowledge, power and rewards throughout the organization.

3. Importance of Employee Empowerment

In the modern business world, companies that have 'the edge' outperform and increase market share. Currently, the organizations understand that in a knowledge-driven economy, speed in taking decisions, efficient methods of functioning and innovative ideas help them gain an edge over competitors. In today's leading organizations, this edge is produced by empowering employees to be more responsible for their jobs, take decisions, and control their own destiny at work. It is with this view point that organizations are adopting a strategy of employee empowerment. Empowering employees is an ongoing process of providing the tools, training, resources; encouragement and motivation your workers need to perform at the optimum level. It is the process of allowing employees to have input and control over their work, and the ability to openly

share suggestions and ideas about their work and the organization as a whole. Empowered employees are expected to perform their work more effectively and efficiently than non-empowered employees. If an organization is looking for a way to speed processes and still produce quality materials and services, focus on employee empowerment. When we show an employee as we trust him or her, and give timely information and the authority to find solutions, he or she will be able to solve problems and provide solutions more rapidly than someone without that empowerment. The importance of empowering employees in the workplace should not be underestimated: it breeds individual and group confidence, enabling people to work both more efficiently and more effectively. When people are confident within their work and with their employer, they are more willing to identify problems and suggest ways to improve quantity and quality of output. These cultures will jumpstart change, increasing agility in the market and providing the impetus to grow revenues. Organizations need employees who take initiatives and function as partners working towards achieving organizational goals. Employee empowerment is one of the ways for organizations to ensure employee engagement and commitment towards meeting mutual objectives. Through empowerment, it is possible for an organization to encourage creativity and innovation among employees, increases productivity, aligns goals of employees with those of the organization and help in employee retention. Jacqueline (2014) stated that empowered employees are likely to develop feelings of motivation that will help them to gain the authority and control and apply the crucial knowledge and skills for dealing with customer needs. As the empowerment programme aims to give power and authority to employees through managers to share the responsibility with them, this will eventually help empowered employees in improving their recognitions and status. Such employees would develop positive thinking and tend to do their best to perform well at the workplace (Wadhwa & Verghese, 2015). Moreover, Ripley & Ripley (1992) demonstrated that empowerment can increase the motivation of employees in doing the routine work, improves their job satisfaction, enhances their loyalty and productivity, and reduces the turnover intentions among them. Employee empowerment has widely been recognized as an essential contributor to organizational success and many authors observed its direct effect on employee performance, job satisfaction and organizational commitment (Meyerson & Dewettinck, 2012). Past studied found that empowerment had a positive effect on job satisfaction (Raza, Mahmood, Owais, & Raza, 2015; Wadhwa & Verghese, 2015) and organizational commitment (Gholami, Soltanahmadi, Pashavi & Nekouei, 2013; Insan, Astuti, Raharjo & Hamid, 2013; Kun, Hai-yan, & Lin-li 2007). Laschinger, Finegan, and Shamian (2002) also demonstrated that developing an environment that improves and encourages the applications of empowerment at workplace will have positive impact on employees' commitment, and this ultimately leads to better organizational effectiveness.

4. Organizational Commitment

Sheldon (1971) defines commitments as being a positive evaluation of the organization and the organizations goals. Most scholars define commitment as being a bond between an individual (the employee) and the organization (the employer). Tansky and Cohen (2001) define commitment as the strength of an individual identification and involvement. Commitment is assumed to be positively related to behaviours that are beneficial to the organization. Organizational commitment reflects the loyalty of an employee towards his or her organization (Ghorbanhosseini, 2012). Popper (1984) argues that organizational commitment reflects the unique relationship between individual and organization. Bateman and Strasser (1984; p.95) state that organizational commitment has been operationally defined as “multidimensional in nature, involving an employee’s loyalty to the organization, willingness to exert effort on behalf of the organization, degree of goal and value congruency with the organization, and desire to maintain membership”. It is defined as “the relative strength of an individual’s identification with and involvement in a particular organization and can be characterized by a strong belief in and acceptance of the organization’s goals and values, willingness to exert considerable effort on behalf of the organization and a strong desire to maintain membership of the organization” (Mowday et al., 1982, p, 27). It was also described by Meyer and Allen (1997) as the degree of attachment to an organization and is characterized by valuing the shared benefits held between an employee and his or her organization. Moreover, Rae (2013) thought about organizational commitment as a desire to maintain the affiliation with an organization and is reflected through the willingness to exert high level of effort to achieve organizational goals. Overall, organizational commitment can be defined as the degree to which an employee develops a feeling of belongingness to his or her organization (Wadhwa & Verghese, 2015). Such feeling is created among the employees through constant involvement in different organizational activities. There are several dimensions for organizational commitment: loyalty, responsibility, the willingness to continue in the work, and faith toward the organization (Diab & Ajlouni, 2015). The degree of employee commitment appears through the loyalty and evidence of productivity at workplace (Porter, Steers, Mowday & Boulian, 1974). Those employees who feel committed to their organizations reveal higher identification to their values and goals. Therefore, a varied array of favourable behavioural outcomes have been associated with employee commitment such as employee retention, daily attendance, significant achievement, quality of work, and individual sacrifice to help an organization in improving its performance (Rabinowitz & Hall, 1977; Randall, 1990). Moreover, highly committed employees are marked by their greater support to the organization in order to reinforce its global success. However, to retain the employees in any organization, managers should provide facilitative and pleasant work environment and support them.

5. Effect of Employee Empowerment on Organizational Commitment

Organizations are continuously upgrading their technology, processes, and systems to cope with competition and challenging environment. Empowerment of employees and generating organizational commitment among them is perceived as going a long way in differentiating one organization from the rest. Feeling of empowerment is proposed and found to facilitate commitment of workers to the organization. Employee empowerment is one of the effective techniques for increasing productivity in employee and optimal use of capacity their individual and group abilities in order to achieve organizational objectives. Kazlauskaite et al. (2012) suggest that employee empowerment is related to performance outcomes such as employee attitudes and behaviour such as trust, job satisfaction, commitment, employee turnover, and organizational citizenship behaviour. Seibert et al. (2011) point that empowerment has both positive (job satisfaction, organizational commitment and task and contextual performance) and negative outcomes (employee strain and turnover intentions). Fernandez and Moldogaziev (2011) established that employee empowerment is positively related to job satisfaction and organizational commitment. Guest (1997) argues that individual perception of human resource management systems are most related to individual and attitudinal behavioural outcomes such as organizational commitment and job satisfaction. Employee commitment is a mindset reflecting employee faithfulness to their organization and it is a continuing chain by which organization's members utter their concern regarding the organization and its development. Seibert et al. (2011) established that there was a strong relation between internal motivation and commitment. They pointed that organizational commitment is elicited by psychological empowerment which brings a fit between work demands and the individual needs and values of an employee. The authors concluded that feelings of autonomy, competence, and impact are likely to increase the individual's commitment to the organization. Fernandez and Moldogazine (2011) posit that employee empowerment is positively related to job satisfaction, organization commitment and performance. Spreitzer, Kizilos, and Nason (1997) argue that employee empowerment has a relationship with job satisfaction and organizational commitment (Liden et al. 2001). This is in line with Boxall and Macky (2009) who posit that empowered employees are more committed to the organization. Argyris (1998) stated that employee empowerment is closely related to internal commitment and it is important that managers wishing to gain commitment of employees must empower the employees. This notion is supported by Conger and Kanungo (1988) who argue that delegating authority encourages commitment and enhances individual and organization commitment. Similarly, Babakus, Yavas, Karatepe, and Ava (2003) pointed that in organizational behaviour empowerment is closely related to decentralization in decision making, increase latitude given to employees over their control of task eliciting affective reactions such as commitment. Kehoe and Wright (2010) proposed that empowerment promotes innovativeness, turning employees into a wellspring of novel ideas, through the relaxation of controls and sharing of power.

6. Conclusion

The main purpose of this paper was to examine the effects of employee empowerment on organizational commitment. Employee empowerment provides employees the opportunities to feel their values in their organizations, and this can increase their level of commitment and performance. The empowered employees feel more motivated and loyal to their organizations. The employees should be empowered because it is through empowerment an organization will develop a strong culture which reflects employee commitment in order to survive, grow, compete, and face any possible challenges that may arise at any time. Empowerment also gives power of decision making to employees making employees own their work and thus increase commitment. Meaningful job provides a suitable fit between the requirements and purposes of one's organizational work roles and one's personal value system. This leads to self-determination and it gives workers control over their work and a voice in work-related decision processes, leading to enhanced involvement in the organization. Employee empowerment does influence their performance and such influence can be mediated with appraisal in an organization. Therefore, it is important every organization to take initiatives for employee empowerment which would result in enhanced employee commitment towards an organization.

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IT'S WITHIN THE SHOPPER: EXPLORING IMPULSE BUYING EXPERIENCES INSIDE ORGANIZED RETAIL FORMATS

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Abstract

We slip into new generation retail outlets to pick up “just a few essentials” but leave with a cart full of stuff and a long bill. This ensues across gender, age, income and profession. Impulse buying, a phenomenon every one experiences, even when we enter these stores after fine tuning our self-monitoring mechanism to evade the same. Researchers and strategic managers across the world have done a great job with respect to advent of Impulse Buying Behaviour as a significant concept worth analyzing. Early day research evaluated the unplanned and instantaneous nature of impulse buying and confined it within certain product categories. Later, stimulus – response relationship of the experience was investigated by researchers. Impulsive behaviour is a basic human trait which could vary from person to person. This has led to the purpose of this research which is to understand what triggers impulse buying and how sensory reflections of a shopper aid impulse buying behaviour. Study is conducted with objectives: to scrutinize the relationship between impulsiveness and Impulse buying behavior, to find out the relationship between customer mood and Impulse buying behavior and to examine the influence of internal factors on impulse buying. The results suggest that impulsiveness and customer mood have a decisive influence on impulse buying inside organized retail formats. The tests proved that these variables and shopper’s impulse buying behaviour are significantly correlated. This will help the retailer enhance the shopping environment to trigger impulse behaviour and results serve as is an eye opener for the customers who make frequent visits to organized retail formats.

Keywords: *Impulsiveness, Customer Mood, Normative Assessment, Impulse Buying.*

1. Introduction

We slip into new generation retail outlets to pick up “just a few essentials” but leave with a cart full of stuff and a long bill. This ensues across gender, age, income and profession. Impulse buying, a phenomenon every one experiences, even when we enter these stores after fine tuning our self-monitoring mechanism to evade the same. In U S, an Impulsive buying has been estimated to account over 4billion U S dollars per annum (Mogelonsky 1998) and is identified as a sales booster in the transformed Indian retail scenario. Researchers and strategic managers across the world have done a great job with respect to

advent of Impulse Buying Behaviour as a significant concept worth analyzing. Early day research evaluated the unplanned and instantaneous nature of impulse buying and confined it within certain product categories. 'Unplanned purchases made by a shopper inside the store' (DuPont Studies 1940) 'Instantaneous purchase happened for some product categories inside retail outlets' (Clover 1950). Later, stimulus – response relationship of the experience was investigated by researchers. Impulsive behaviour is a basic human trait which could vary from person to person. Even the most diligent individual may act on impulse at times. Rash driving, redundant arguments, negligent acts, gambling are all manifestation of this trait. Impulsive trait is often not exhibited because normative factors within oneself control the individual from acting so. Consumer behaviour studies, over the past decades have identified the interplay between impulsiveness and buying pattern. Retailers across the world have long become conscious about the clout of Impulse Buying. Impulse Buying behaviour is a sudden compelling hedonically complex purchasing deed in which the rapidity of the impulse buying decision process prevents thoughtful, deliberate consideration of all information and choice alternatives (Bayley & Nancarrow, 1998; Weinberg & Gottwald, 1982). Stern (1962) stated that buying impulse is affected by Personal, Temporal, Economic and Cultural factors. These factors influence the buying pattern of customers in varying product situations. 'Weinberg & Gottwald' (1982) highlighted that impulse buying happens to customers who show greater emotions such as amusement, enthusiasm, joy and delight when compared to rational buyers. Elaborated further by saying that primary attribute of impulse buying is a swift and irresistible urge to make a purchase and own the product immediately. Because of this urge, buyer's aptitude for cognitive self-assessment of product features decline. 'Rook' (1987) came out with a different perspective regarding impulse buying. Portrayed customer impulsion as a personality trait associated with lifestyle. He added it with materialism, sensation seeking recreational facets of shopping. 'Dawson et.al' (1990) study revealed that consumer emotional states significantly influence impulse buying. It is the emotional stability which regulates the impulse behaviour of a person in all situations. 'Han et.al' (1991) pioneered the concept of fashion – oriented impulse for buying the latest fashion products particularly in the apparel segment. 'Rook & Gardner' (1993) suggested that, it is customers' mood states which result in impulse buy. It happens because of swift decision making tendencies longing instant possession based on mood changes. 'Dittmar et.al' (1995) found that individual psychological characteristics, especially buying beliefs influenced impulse buy in a great way. General demographic background also contributed to triggering impulse. Study focused on the individual preconditions which existed even before he entered the store.

2. Research Problem

Retail industry of the nation has undergone a transformation during the last two decades. A shift from 'kirana shops' to supermarkets, hypermarkets and big mall spaces has affected the buying pattern of shoppers as well. Instantaneous buying with very less thought process has become order of the day in the changed retail

scenario. No retailer could ignore the relevance of impulse buying, as it contributes in a big way to their cash box. A query into the reasons of this behaviour could throw light on various factors, and could be classified into internal and external in nature. The rationale of this research is to enquire the relationship between internal factors within the shopper and impulse buying behaviour when he visits super/hyper markets of Kerala. Internal factors which drive the shopper to make an impulse buy inside store are built on the variables; impulsiveness, customer mood, personality and lifestyle, fashion consciousness, festive mood and normative assessment.

3. Objectives of the study

1. To analyze the demographic profile of shoppers who visit organized retail formats.
2. To, examine the influence of internal factors on impulse buying.
3. To analyze the variation of impulse buying based on the relationship between demographic profile of shoppers and internal factors.
4. To, assess the impact of normative assessment on impulse buying.

4. Research Hypotheses

Based on the review and the stated objectives, the following basic hypotheses were formulated with respect to the relationship between internal factors and impulse buying.

- H_0 There is no significant relationship between internal factors and impulse buying behaviour of shoppers inside organized retail stores.
- H_1 There is a significant relationship between internal factors and impulse buying behaviour of shoppers inside organized retail stores.
- H_0 There is no significant relationship between shopper's mood and impulse buying behaviour inside organized retail stores.
- H_1 There is a significant relationship between shopper's mood and impulse buying behaviour inside organized retail stores.
- H_0 There is no relationship between normative assessment and impulse buying behaviour of shoppers inside organized retail stores.
- H_1 There is a significant relationship between normative assessment and impulse buying behaviour of shoppers inside organized retail stores.
- H_0 Demographic elements do not influence and impulse buying behaviour of shoppers inside organized retail stores.
- H_1 Demographic elements influence impulse buying behaviour of shoppers inside organized retail stores

5. Methodology of the study

The study is an attempt to establish a relationship between internal factors of shoppers and impulse buying behaviour inside organized retail formats. Variations related to demographic profile and impulse buying nature of consumers are also bought under the purview of the study. Ten different organized retail formats (super markets and hypermarkets) were selected randomly from the city of Kochi in central Kerala. Respondents were randomly intercepted while exiting the store. Visitors who made no shopping were screened out. Shoppers were asked to fill in the questionnaire to the best of their ability. A total of 164 shoppers participated in the field study. The survey tool consisted of items devised to measure: Demographic profile of the respondents, Impulsiveness, Customer mood, Fashion consciousness, Festive mood, and normative assessment. A five point LIKERT scale ranging from strongly disagree =1 to strongly agree =5 was used to measure each variable.

6. Results

Foremost, the question raised was whether or not the internal factors were having an impact on impulse buying behaviour of shoppers. Demographic profiles of the sample were analyzed to find the diversity of the same. Interrelationship between demographic factors and impulse buying tendency inside the store was looked into. Finally the relationship between normative assessment and impulse buying was investigated. Frequency tables were generated to portray the demographic profile of the respondents. Percentage analysis was executed to understand the variation of impulse buying tendency based on demographic features. Correlation is a statistical measure that indicates the extent to which two or more variables fluctuate together. A positive correlation indicates the extent to which those variables increase or decrease in parallel; a negative correlation indicates the extent to which one variable increases as the other decreases. The Pearson correlation tests were conducted to see the correlation between internal factors, normative assessment and consumer's impulse buying behaviour. Multiple regression models was run to test the hypotheses formed with regard to the relationship between impulsiveness, customer mood and impulse buying behaviour. Alternative hypotheses formed were accepted in all the above situations and relationship between the independent variables and the dependent variable, impulse buying behaviour was established.

7. Implications

The study investigated the influence of internal factors on impulse buying tendency of shoppers in organized retail formats of Kerala. It has provided valuable insights to store owners, shoppers and researchers in understanding the underlying relationship between internal factors and impulse buying of shoppers. The results suggest that impulsiveness, customer mood, and normative assessment have a decisive influence on impulse buying inside organized retail formats. The tests proved that these variables and shopper's impulse buying behaviour are significantly correlated. Store managers should pay attention to enhance the store

environment to lift the mood of shoppers and make them impulsive to act. Stimulus elements present in the shopping environment must dilute the influence of normative framework leading to impulse buy inside the store. This will help the retailer enhance their daily sales volume leading to bigger profit. On the other hand it is an eye opener for the customers who make frequent visits to organized retail formats. The study helps them understand the internal mechanisms which make them impulsive and at the same time regulates the urge through learned norms within.

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TECHNOLOGICAL CHANGES IN SUPPLY CHAIN MANAGEMENT USING 'RFID' TECHNOLOGY

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Abstract

As supply chains become more dynamic and complex in real time, the business managers facing challenges in decision making due to reduced time lag between planning and execution. Real time information from execution systems give the capability to feed back into and allow the development of continually adjusting optimal plans. Today geographic technologies are moving into key business functions enabled by technologies such as RFID tags, embedded Global Positioning System (GPS) capabilities, and spatial analysis features are making revolutionary changes in Supply Chain Systems. The basic benefits that RFID brings to the supply chain are automated real-time data capture related to product information, status information, location and environment status information. Thus, RFID provides a real-time view of how goods are moving through the supply chain, thereby dramatically improving the supply chain visibility, and opening up opportunities for unprecedented gains in the operational efficiency for any organization connected to the supply chain. In the application of supply chain management (SCM), the pivotal point is how to record and process the movement trajectories of RFID tags. In this paper we propose a mathematical encoding scheme using prime numbers, in order to optimize the storage requirement of these continuously moving RFID tags. It also addresses the problem of long path and cyclic path there by a more generalized and feasible methodology is adopted. As the movement of the product in supply chain is detected easily by RFID technology, it is observed that RFID can be used to revolutionize supply chain system.

Keywords: Supply Chain Management, RFID Technology.

1. Introduction

Supply Chain Management (SCM) involves an integrated multi-organizational approach to administrate all the activities of product movement in an organization. This data can also be updated as the item progresses through the supply chain. RFID technology [1, 5] gives benefits to distributors and retail stores using the technology as explained below that are arising from various aspects.

- (i) **Automatic data capture** - Increase in warehouse processing accuracy and throughput, Increase in inventory accuracy, Speed up physical inventory

process, Reduce labour costs, paperwork and quantity reconciliation, Increase in inventory accuracy, Speed up physical inventory process, Increased customer service levels

- (ii) **Handling Tracking of goods** -Reduce thefts, misplacement and misrouting, optimize work process to increase productivity, Better handling of data sensitive inventory, Better returns management and warranty authentication
- (iii) **Supply Chain Visibility** – Increase on-time deliveries, Reduce inventory levels and safety stocks, higher sales.
- (iv) **Asset Tracking** – Reduce inventory of obsolete products, increase asset utilization.

2. RFID Technology in Supply Chain Management

Supply chain (SC) is viewed as a set of three or more components directly involved in the flows of products, services, finances, and/or information from a source to a customer. Supply chain is like a pipeline composed of multiple companies that perform procurement of materials, transformation of materials into intermediate or finished products, distribution of finished products to retailers or customers, and recycling or disposal in a landfill. Supply chain management (SCM) is the efficient management of the flows of material, data, and money in the supply chain.

How RFID Technology Revolutionizing Supply Chain Management

Today Enterprises are improving their supply chain infrastructure to compete and gain market share. The industry is witnessing technology and process upgrades which clearly show that supply chain excellence is more widely accepted as an element of overall business strategy. Even with these development, being a complex and knowledge intensive process, there are many challenges in the management of supply chain. In this one of the biggest challenges is that search methods to reduce their supply chain cost. Secondly, the companies are targeting for new customers in addition to retain the existing customers by trying to expand their distribution to emerging markets in order to grow revenues. One of the ways to grow is to provide outstanding customer experience. In order to achieve that, an enterprise can either maximize or optimize its business. The problem with maximizing is that it requires continuous funding. So, the best way out is to take a sensible approach which can deliver excellent customer experience and yet make business sense. This requires enterprises to build an optimized supply chain system which does not cost much and delivers phenomenal customer experience. One innovation which has risen to become a revolutionary element in supply chain management is RFID (Radio Frequency Identification) technology. RFID ensures that the right goods are available in the right place with no discrepancies and zero errors. It makes the supply chain considerably more precise and improves the efficiency and reliability of the entire chain. If we take the example of FMCG industry, products have to be counted several times already in the manufacturing process. By utilizing RFID tags and readers, products can be counted in seconds. As RFID tags can be automatically scanned without being in the line-of-sight of an RFID

scanner, multiple tags can be scanned simultaneously. For manufacturers this translates directly into cost reductions as labour intensive tasks can be carried out faster and more accurately. Usage of RFID [6] also ensures accurate inventory control. RFID is potentially the most powerful technology for managing inventory because of its ability to reduce the time it takes to perform inventory, thereby providing enterprises with real time visibility into the products on the shelves. In order to reduce the overall cost due to supply Chain operations and to offer better customer support to meet the above challenges one possible approach is to have an optimized storage structure for RFID database which contains product movement data. In the following section we propose an optimize storage structure for RFID database using theory of prime numbers.

3. Optimization of RFID Storage Structure

Today geographic technologies are moving into key business functions enabled by technologies such as RFID tags, embedded Global Positioning System (GPS) capabilities, and spatial analysis features in mainstream database management systems DBMS. Thus, RFID provides a real-time view of how goods are moving through the supply chain, thereby dramatically improving the supply chain visibility, and opening up opportunities for unprecedented gains in the operational efficiency for any organization connected to the supply chain.

A. RFID Database Modeling

Here we propose an RFID database model which uses the stored structure and external data to support querying and mining. An RFID system consists of three main components: tags, antenna receiver and receiver with decoder. A tag T in a location reflects or emits RF signals within its detection region. When the antenna detects the signal, the reader analyses the signal and stores the EPC and the current timestamp into the database. We represent paths, tags, times and other information in the model and develop path coding schemes for the movement of T in a stored data model. We also incorporate logistic hierarchies and relevant product information into the product data model and the logistic hierarchy data model respectively. This serves as a foundation for the database implementation. To explain the database model in Figure 1, we start by assuming a simple model of RFID raw data in SCM. An RFID reader detects a tag and generates *Raw Data Record* having three attributes (EPC, LOC, TIME) where EPC is a unique ID of a tag[1,3] and LOC is the location of the (unique) RFID reader and TIME is the time instant of detecting the tag. We then collapse the raw data into the *Stay Record* entity having four attributes (tag id, loc code, time in, time out) where time in and time out are the time instants of the first detection and the final detection of the tag. A stay record represents an RFID tag moving through a location during a specific time interval. However, using a stay record as a stored data model is too simplistic to support the evaluation of path queries that track objects, particularly for those path queries involving many locations, which need to perform self-joining of the table many times. Thus, we develop various sophisticated coding techniques and include *Path Record* and *Path Code* entities into the model.

B. Using Path Encoding Scheme

The basic idea of the path encoding scheme[1] is that a tag movement path “ $L_1 \rightarrow L_2 \rightarrow \dots \rightarrow L_n$ ” can be coded by assigning a unique prime number, P_1 , to represent all locations(or all readers) and another prime number, P_o , to represent the location order. To generate a unique integer pair (P_1, P_o) , we rely on the *Unique Factorization Theorem* for coding locations and the *Chinese Remainder Theorem* for coding their order. However, due to the scarcity of prime numbers, the state-of-the-art method in [3,5] which supports neither long path coding (e.g. encode a long path of more than 8 locations) nor cyclic path coding (e.g. encode a path in which a tag passed a location twice). The first problem is due to the fact that most programming languages use unsigned integers (32 bits) that only support $2^{32}-1$, which is less than the product of the first nine prime numbers $2 \times 3 \times 5 \times 7 \times 11 \times 13 \times 17 \times 19 \times 23$. Even for 64 bit unsigned integers ($2^{64}-1$), it can only support the first 15 prime numbers. In addition, suppose a tag goes through the path “ $L_1 \rightarrow L_2 \rightarrow L_3 \rightarrow L_1 \rightarrow L_2 \rightarrow L_3$ ”. In this case, the coding method in [3] fails, since the system of simultaneous *congruences* of Chinese remainder theorem is not applicable here and thus (P_1, P_o) fails to code $2 \rightarrow 3 \rightarrow 5 \rightarrow 2 \rightarrow 3 \rightarrow 5$.

The following section summarizes how we approach the two problems discussed earlier

C. Problem with long path

We quote the following theorems from theory of numbers [4, 5] in addressing the above problem

- a. **The Fundamental Theorem of Arithmetic:** Any natural number greater than 1 is uniquely expressed by the product of prime numbers.
- b. **The Chinese Remainder Theorem:** Suppose that n_1, n_2, \dots, n_k are pair wise relatively prime numbers. Then, there exists x $0 \leq x < (n_1 \cdot n_2 \cdot n_3 \cdot \dots \cdot n_k)$ which solves the system of simultaneous congruences $x \bmod n_i \equiv a_i$ for $1 \leq i \leq k$.
- c. **Euler Formula for Prime Generation:** For every integer x between 0 and 40, $x^2 - x + 41$ is a prime number.

To solve the long path coding problem, we first partition the whole set of locations into different clusters having roughly the same number of locations. Using finite continued fraction in Theorem 1 we are able to represent a cluster code denoted as C (having a unique positive integer as its id) together with its respective (P_1, P_o) . Notably, the clustering can be straightforwardly extended into more than one level within each cluster, which therefore removes the constraint of having no more than 8 prime numbers for coding a path in a cluster. Suppose there are two clusters coded by two positive integers C_1 and C_2 . The sub path in cluster 1 can be computed as loc code1 and order code 1 and similarly notations for the sub path in cluster 2. If a path goes from cluster 1 to cluster 2, we generate the Full path code P as $1/(c_1+1/(loc_code1+1/(order_code1+1/(c_2+1/(loc_code2+1/(order_code2))))))$

When decoding P, we first check whether it is smaller than 1. If this is the case, then the path covers more than one cluster. We then decompress P to extract loc_code and order code in each cluster.

D. Problem with cyclic path

To solve the cyclic path coding problem, we apply Euler's prime number generation formula in Theorem 1. For example, the cyclic path $2 \rightarrow 3 \rightarrow 5 \rightarrow 2 \rightarrow 3 \rightarrow 5$ is coded as " $2 \rightarrow 3 \rightarrow 5 \rightarrow 43(x=2) \rightarrow 47(x=3) \rightarrow 61(x=5)$ " which can be used to form the system of congruences required by the Chinese remainder theorem of Theorem 1.

We are now ready to present our algorithms to handle long and cyclic paths. For simplicity in presentation, we assume one reader for each location and one level of clustering. We divide the whole set of locations into n clusters, each of which has less than 8 locations. We then code each cluster by an integer and within each cluster a location is coded by a unique prime number np. We now represent a path with three integers (loc code Pl, order code Po, cluster code Nc) only. Loc code can be computed by using the *Fundamental Theorem of Arithmetic* in Theorem 1, which by definition Pl is the product of all prime numbers associated with the path. Order code exists according to the *Chinese Remainder Theorem* in Theorem 1 and Po can be computed by Euclid's algorithm [5].

For example, consider $\{n_1 = 2, n_2 = 3, n_3 = 5\}$ and $(Po \bmod 2) \equiv 1, (Po \bmod 3) \equiv 2, (Po \bmod 5) \equiv 3$, then Po can be computed as $((1 \times 3 \times 5 + 2 \times 5 \times 2 + 2 \times 3 \times 3) \bmod (2 \times 3 \times 5)) \equiv 23$.

As we are not able to make order code Po congruent to the same location twice in the Chinese Remainder Theorem, we need to assign more than one prime number to those repeatedly visiting locations. Here is our proposed solution to this problem. First, we code each location with a prime number as said and this number is not an *Euler Formula Prime*. We call this set of location prime numbers the *Fundamental Location Set* and denote the set by F. Given that the *Stay Records* can be sorted by time in, if a specific location occurs twice, the first occurrence will be the prime code n from F and then the second occurrence can be coded by applying Euler Formula by putting $x = n$. The new generated Euler prime numbers do not belong to F.

4. Supply Chain Analytics with Optimized Storage

We are currently working with the implementation of the following research applications that can benefit for the above proposed optimized storage structure for RFID data base.

A. Similarity based analysis of RFID tag movement in Supply Chain

We introduce the similarity measures between two moving RFID tags in a supply Chain Environment. Here the spatial similarity is measured based on three concepts as explained below.

- a) Common locations visited by two RFID movements
- b) Sequence Similarity of RFID tags movements

c) Temporal Similarity of RFID tags movements

a) Common locations visited by RFID movements

Let T_i and T_j be RFID movements Paths. We introduce a Spatial Similarity measure $Sim(T_i, T_j)$ which attempt to incorporates number of common locations in trajectories. This similarity metrics measures the number of common locations passed through during the two trajectories relative to the total number of locations in both trajectories.

$$Sim(T_i, T_j; P) = 1 \text{ if } \forall p \text{ in } P; p \text{ is on } T_i \text{ and}$$

0; otherwise where P is the given set of Points of Interest

b) Sequence Similarity of RFID tags movements

The above spatial similarity measures consider the number common locations visited by two moving products. The spatial similarity is checking only the percentage of common locations visited by each trajectory with the query trajectory made by points of interest. As we consider important individual locations in Point of interest (POI), the sequence in which these locations visited by an input trajectory is also to be considered in finding the actual similarity. For example in the field of supply chain transport if POI contains set of outlets for supply and then the sequence of locations a wagon crosses will also have to be considered in finding how a user movement trajectory matches with the query trajectory created with the given set of POI. Here we consider the original trajectory data as a set of sequences, and apply sequence alignment method to measure similarity between trajectories. The sequencing is being done by the dynamic programming technique.

c) Temporal Similarity of RFID tags movements

The similarity measure defined in the previous section takes into consideration only the spatial concept, which consists of common locations, visited and sequence similarity. In real applications, the time information associated with each tag movement is also very important. So to measure the similarity we have to consider the concept of space and time together.

B. Applications of Similarity measure in Supply Chain Management

The above measure of similarity is having potential benefits in supply chain system like customer purchase behaviour analysis, ordering of items in showcase, redistribution of sales promoters in sales floor, to increase the availability variety goods based on customer taste.

5. Conclusion

In this paper we discussed how to use RFID technology as an effective tracking tool for product movement in a supply chain. It has found that RFID can change the organization profile with increased profit; more satisfied customers and thus it eventually revolutionize Supply Chain Management. This study explored the role of RFID in supply chain for obtaining information; RFID technology and the supply

chain, the benefits, and how it can boost and enhance data management in supply chain system. The Modelling of RFID database is a challenging problem situation and we have suggested a data model which will optimize the storage size by using path encoding scheme. Also we have discussed the similarity problem in RFID trajectory made from the RFID database of moving tags in supply chain Network.

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BENEFIT SOUGHT SEGMENTATION FOR STAR LABELLED HOME APPLIANCES

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Abstract

This study uses benefit needs as criteria to segment the market for star labelled home appliance. Consumers seek the benefits associated with star labelled home appliances before making purchase decision. Thus the benefits sought is an effective segmentation variable for the home appliance market. Based on the benefit segmentation results, marketing managers can focus on one or a few segments that show salient consumer preferences for the benefits provided by their products or services. Satisfying the consumers' needs produces company success. Standards & Labeling (S&L) for appliances and equipments is one of the major programmes for improving energy efficiency and bridging the gap between demand and supply of energy in India. Efficiency is the most economical way in which India can invest in its energy security and growth. Given our already critical energy situation, we need to urgently catalyze saving at the mass level; especially because the Indian consumer base is increasing rapidly. Energy labels are designed to encourage the purchase of more efficient electrical home appliances.

Keywords: *Benefit Sought, Segmentation, Star Labelling.*

1. Introduction

Smith (1956) defined market segmentation as 'viewing a heterogeneous market as a number of smaller homogeneous markets, in response to differing preferences, attributable to the desires of consumers for more precise satisfaction of their varying wants. For a group of consumers to qualify as a market segment, it must satisfy basic qualifying criteria or measures of validity that include elements such as measurability, identifiability, accessibility, substantiality, actionability, stability, responsiveness and profitability (Frank 1972, Loudon & Della Bitta 1984, Kotler 1984, Baker 1988; Webster 1991). An approach to market segmentation whereby, it is possible to identify market segments by causal factors rather than descriptive factors might be called "benefit segmentation", (Russell I. Haley, 1968). The belief underlying this segmentation strategy is that the benefits which people are seeking in consuming a given product are the basic reasons for the existence of true market segments. Experience with this approach has shown that benefits sought by consumers determine their behaviour much more accurately than do demographic characteristics or volume of consumption. Benefit segmentation is a technique that segments customers on the basis of

desired or sought benefits. These benefits, when they are present as attributes of a product, service or market offering, cause consumers to purchase those products, rather than merely describe who they are as consumers in terms of socio-economic, demographical or psycho graphical data. Benefit segmentation offers more utility than the traditional methods because it explains the reasons why consumers choose to buy or prefer particular products, or patronize particular suppliers or providers of services (Haley 1968). Conserving energy is the need of the hour. Population is increasing, natural resources are dwindling and global warming is a threat. That should be reason enough to switch to energy-efficient home appliances. A number of features are incorporated into appliances to make them energy efficient and green, and depending on how well they meet the criteria, the Bureau of Energy Efficiency (BEE) gives star ratings ranging between one and five. The BEE Standards & Labelling (S&L) scheme was launched in 2006. India's energy security is critical to maintaining its high growth rate. Currently India faces a peak power capacity shortage of about 9.8 percent, and approximately 8.5 percent of its total electricity demand is left un-served. Standards & Labelling (S&L) for appliances and equipments is one of the major programmes for improving energy efficiency and bridging the gap between demand and supply of energy in India.

2. Conceptual Backing and Discussion

Segmenting the market implies distinguishing different segments, and selecting one or more of them on which to focus. The key requirement is to develop product and marketing mixes tailored to the needs of each target market. Market segmentation and targeting have been shown to improve the sellers' capacity to identify market opportunities, and to make clear adjustments to their product, prices, distribution channels and promotional mixes (Kotler 1999, Wind 1978). In re-examining the utility offered by benefit segmentation method, Haley (1984) considered it as a useful approach in running two models of advertising process. The first model is about convincing people that a particular brand is superior by delivering or communicating its cognitive benefits. The second model is about making a brand more salient and therefore more likely to be purchased by emphasizing its cognitive benefits. Kotler (1999) defined market segmentation as 'dividing a market into distinct groups of buyers with different needs, characteristics or behaviours, who might require separate products or marketing mixes', and defined it as 'a process of grouping customers in markets with some heterogeneity into smaller, more similar or homogeneous segments; the identification of target customer groups in which customers are aggregated into groups with similar requirements and buying characteristics. Nowadays, one of the approaches used for market segmentation, is "benefit sought approach". This approach focuses on those types of benefits that consumers seek for in buying products. Nowadays, due to current competitive market, the undeniable fact of identifying and evaluating the market in order to provide companies with solutions for improving the profitability of their products reveals the necessity of market research and marketing. One of the tenets governing the current competitive

market is to follow the customer-oriented principles. Target production is the name chosen for the current situation of the market. So many companies have quit the mass marketing approach in favour of the target marketing approach. This approach (target marketing approach) divides the market into different segments and then chooses the best parts according to the capability of the company in providing the segments with the best services possible among their competitors in order to achieve a competitive advantage. Since there is no stable basis for companies to segment their market, many variables are used in the process of market segmentation (Mc Donald and Dunbar, 2004).

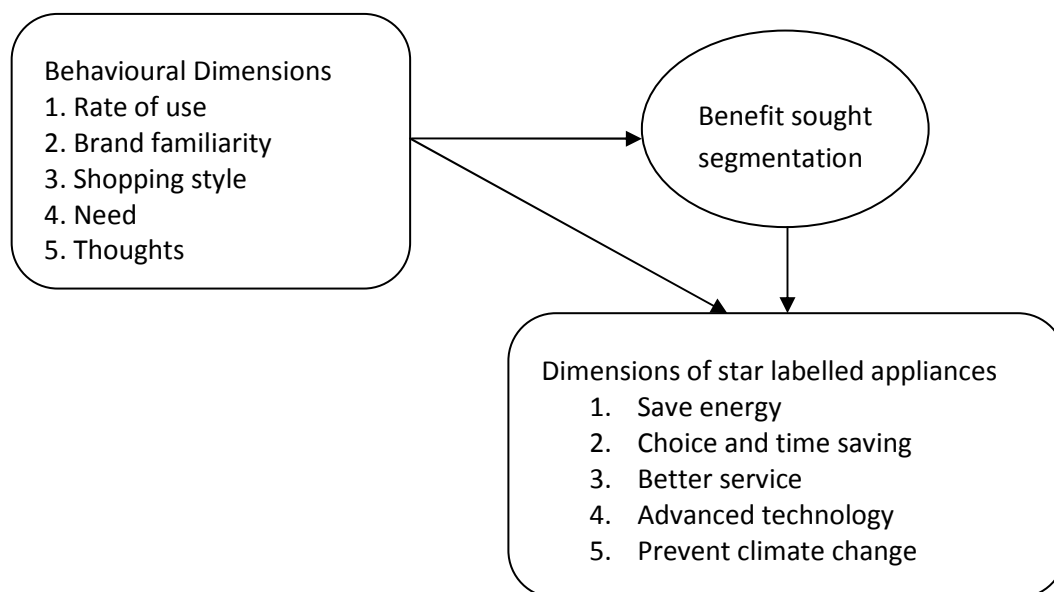
The justification for segmenting consumers on the basis of similarity of their characteristics or segmentation variables is that consumers who share similar characteristics will share similar wants, needs, and attitudes towards marketing stimuli. Consumers belonging to a particular segment can be expected to react in the similar and predictable manner to a particular stimulus, such as a price discount. In addition, Frank (1972) argues that some parts of the market can be discriminated against in terms of the prices they can bear and when this occurs, it offers opportunities for profit maximisation. Some quality-conscious and hedonistic consumers, for example, do not mind paying higher prices for goods and services in return for complete personal satisfaction. Segments of consumers, in terms of benefits they seek, are established as an ex-post rather than an a priori theory of consumption and/or buying behaviour. The Energy Star label allows consumers to more easily identify and purchase energy-efficient products. By transforming the market for high- efficiency products, DOE and U.S. EPA reduce air pollution and greenhouse gases associated with energy consumption. For a more detailed description of the Energy Star program, refer to Mc Whinney (2005), Brown (2002). Market segmentation is a key process in any marketing strategy. With more and more competition arising each day, the segmentation process has become critical to the success of the company. As more competition is coming up, people are also becoming product conscious and that is where lies the opportunity for Benefit segmentation. Hitesh Bhasin (2015) .The buyer of a particular appliance can determine its energy efficiency from the number of stars displayed on the label. There must be a minimum of one star and the maximum is five. The Objectives of Standards & Labelling Program is to provide the consumer an informed choice about the energy saving and thereby the cost saving potential of the marketed household and other equipment. Choosing an energy star –labelled product can save you thousands of rupees on your energy bills, it also contributes to helping the environment. Star label is a significant part of India's response to the Climate Change Initiative. In many parts of India, fossil fuels are burned to create electricity. This process produces greenhouse gas emissions- a leading cause of climate change- as well as other pollutants that generate urban smog and acid rain. Energy conservation gains importance in India in the wake of widening gap between energy production and demand. Following the dictum 'Energy saved is energy produced', the governments at both the Centre and the State levels have moved in the direction of bringing a series of measures and setting up mechanisms to promote conservation of energy. But homes and individuals need to be roped

into the mission on a mass scale. The Union Government also launched the National Mission for Enhanced Energy Efficiency (NMEE) which is one among the eight national missions working for filling deficiencies in varied sectors of development and as part of national action plan on climate change. The success of such consumer oriented programmes is critically depends on awareness and acceptability of energy efficient products by consumers. There are two ways to promote energy efficiency in India

- Promotion of energy efficient products and
- Adoption of energy efficient technologies

Both are challenging, as they involve a number of diverse stakeholders, such as policy makers, manufactures and, more importantly, consumer with varying consumption habits and preferences. At the same time, there is need to understand the ground situation of sustainability of both demand and supply of energy efficient products. Buyer's preferences affect the willingness to purchase goods. This demand determinant is based on the satisfaction of wants and needs that buyers obtain from a goods. If goods provide greater satisfaction, then buyer is inclined to purchase more. If goods provide less satisfaction, then buyers are inclined to purchase less.

Figure.1. Conceptual Model of Benefit Sought Segmentation



Through this literature review the researcher has arrived at a conceptual model. The relationship that exists between models of behavioural dimensions and dimensions of star labelled appliances include

1. Heavy and medium level users tend to give more preference to save energy concept.

2. Brand familiarity of a product helps in making quick choice where by saving the purchase time.
3. Better service by way of educating the consumers about the benefits of star labeled appliances results in altering their shopping pattern.
4. Advanced technology is one of the most preferred choices and the need of the consumer.
5. Now a day's environmental protection has become a pivotal factor influencing the thought process of the consumers.

3. Conclusion

The factors to be considered while making benefit sought segmentation of star labelled home appliance includes price, energy efficiency, environmental protection factor, quality and technological advancement. From the literature review, it's understood that significant relationship exists between consumers' income, education, occupation, awareness level, willingness to pay and these variables play a key role in defining the market segments. Encouraging the development of products that use less while doing more, that are more and more intuitive and usable, along with fostering an action oriented ethos around saving energy, are investments that will continue to pay off for the environment.

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MANAGING KNOWLEDGE WORKFORCE THROUGH EMPLOYEE ENGAGEMENT

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Abstract

Employee engagement is the level of commitment, enthusiasm and involvement an employee has towards his chore which can be deliberately seen in his/her fidelity towards the work. Most of the industries have given proper space to Employee Engagement but IT sector has focused on this aspect with greater emphasis as the turnover rate of employees is comparatively high in this sector. The main purpose of the study is to outline various concepts of employee engagement and to study the relationship between employee engagement and organisational citizenship behaviour of employees among select IT firms in Kerala. Job hopping, attrition and retention are the major challenges faced by HR professionals in IT (Information Technology) industry. In today's knowledge-driven marketplace where employees are the most important capital assets and even worse than aforesaid issues is, disengagement. Employee engagement is a workplace approach emerged during past decade. An employee engagement survey measures employees' collective level of engagement at their organization. Results indicate that there exist a highly positive significant relationship between employee engagement and OCB. The current cross sectional survey reinforces previous literature followed by discussions, implication and conclusions.

Keywords: *Employee Engagement, Organisational Citizenship Behaviour.*

1. Introduction

The Information Technology industry in India has gained a brand identity as knowledge industry due to its IT Services and IT supported business process outsourcing. The industry has helped India transform from a rural and agriculture-based economy to a knowledge based economy. Of myriad HR-related challenges faced by the industry, the critical one is attrition. As the old saying goes "what you can't measure, you can't manage. In order to maintain a healthy employee organization interaction organizational scientist need to apprise companies about the barometer reading of employee engagement as it exists in a particular organization. Understanding the specific factors influencing the engagement levels of the Indian work force will be important to any Indian company looking to positively influence the productivity of its work force (Blessing White, 2008). To a great extent, the employee's performance is influenced by employee engagement and motivation .If a company is guiding an

employee in a certain direction then that company has some idea where that employee is headed. The purpose of this action is twofold. First, it aids in employee engagement, and secondly, it provides direction that substantially increases the value of that employee to the company.

2. Literature Review

Based on Kahn's theory people can use varying degrees of their selves physically, cognitively and emotionally in work role performances (which are termed as three psychological conditions-namely meaningfulness, safety and availability) which has implications for both their work and experiences (Kahn, 1990). According to Scarlett Surveys (2001) employee engagement is a measurable degree of an employee's positive or negative emotional attachment to their job, co-workers and organization that profoundly influences their willingness to learn and perform is at work. The most widely cited definition of engagement was provided by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002).

Bakker, Demerouti and Schaufeli (2003) define work engagement as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption. Vigor refers to high levels of energy and psychological resilience while working, willingness to invest effort in a task, and persistence in difficult times. Dedication is described as having a sense of significance, enthusiasm, inspiration, pride, and challenge, whereas absorption can be considered as "flow" – a state of optimal experience –which is long-term and is characterized by a "pervasive and persistent state of mind" (Schaufeli et al., 2002). No doubt, employee engagement had been defined in many unclear ways but the definitions of employee engagement from various literature, are centered on motivation, pride at work, satisfaction, organizational citizenship behaviour, commitment, recognition and respect at work, going extra mile and advocacy in terms of recommending ones organizational products and services as well as encouraging other people to join ones organization. The key element of the employee engagement goes beyond other constructs such as job satisfaction, organizational commitment, job involvement, organizational citizenship behaviour because it involves the active use of emotions, cognition and behaviour while focusing on interactions of employers and employees working in consonance with the organization's objectives and strategy. As sophistication of technologies continues to evolve, they pose more challenges for managers because organizations will have to need more number of employees with increased technical and professional skills. These knowledge workers cannot be managed with old styles of totalitarian management. They expect operational autonomy, job satisfaction, status and much more. It is because of these facts that attention of managers is shifting towards employees' side of organizations. From last quarter of twentieth century onwards, concepts like employee commitment and Organizational Citizenship Behaviour (OCB) started to appear on the ground that efficiency and productivity lie within the employees' ability. Robinson et al. (2004) states "engagement contains many of the elements of both commitment and Organisational Citizenship Behaviour (OCB), but is by no means a perfect match with either". Besides, neither commitment nor OCB

reflect sufficiently two aspects of engagement – its two-way nature, and the degree to which engaged employees are expected to have an element of business awareness.

Organ (1988), in his much quoted and well-known book *Organisational Citizenship Behaviour—the Good Soldier Syndrome*, defined OCB as “individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation”. OCB prop ups the effective and efficient operations of the organization (Organ, 1988). Organizations comprise individuals whose behaviour range from the least possible contribution just to maintain an affiliation with the organization to others who go the extra mile discretionarily involving in extra role behaviour for the benefit of the self and the organization. Discretionary behaviour at workplace is the organizational citizenship behaviour (OCB) as indicated by Robinson and Hayday. Some of these behaviours include voluntarily helping peers, taking personal initiatives for the development of the team, volunteering innovation; not wasting time and performing extra duties without complaint. These behaviours are believed to be instrumental for the effective functioning of the organization. (Organ, 1983). Hewitt Associates has worked with 2000 companies representing four million employees and identified key drivers of employee engagement – employee relations, total rewards, career opportunities, and quality of work life, HR practices and the work itself. According to the authors, managers should focus in coaching & career support, recognition, accountability, involvement and communication to facilitate employee engagement (Sarangi, 2012). Highly engaged employees have a passion for their work and feel deep connection to their organization. Markos and Sridevi (2010), in their study have mentioned about ten engagement strategies which they call as “tablets” which are believed to cure employee disengagement diseases. These strategies include effective recruitment, leadership commitment, two – way communication, opportunities for career development and advancement, allocation of appropriate resources, appropriate training, strong feedback system, incentives and recognition, strong work culture and focus of top performers. Organizational Citizenship Behaviour as an Outcome of Engagement was investigated by (Barman, 2012) using satisfaction of workplace environment and satisfaction of workplace climate as independent and OCB as independent when engagement as a mediator. The results showed a very high order of significance and positive association of employees’ engagement with employees OCB and the component behaviour, and it will be more significance when engagement is interacts with the satisfaction of workplace (climate, and environment). As, when individual helping behaviour of OCB is expected and appreciated in many cultures, may be understood in different way, or it may be another motive behind this helping behaviour such as the lack of confidence in others, and possibly cause unexpected troubles in interpersonal relationships at the workplace in some other contexts (Wang, 2015) Zedan Abd-Allah Osama Mohamed (2016) in his study titled “The Relationship between Organizational Citizenship Behaviour and Employee Engagement in Cement Industry in Egypt” tried to investigate the relationship between Employee engagement as

independent construct and OCB as a dependent construct in a private cement company in Egypt. A sample of 350 employees is planned to be used supported by HR group of the Titan cement company in Egypt through using paper and pencil survey which designed to measure the vigor, dedication, and absorption as an Employee engagement dimensions, and to measure conscientiousness, altruism, courtesy, sportsmanship, and civic virtue as OCB dimensions without testing any mediating or moderating roles for other construct. Findings suggest that Employee engagement has a direct significant positive relationship between employee engagement and OCB for employees working in cement industry in Egypt.

3. Objectives of the Study

- To establish the extent to which employee engagement relates to organizational citizenship behavior among select IT firms in Kerala.
- To determine the level of employee engagement by demographic variables (age, work experience and educational qualification)

4. Statement of the Problem

Employee engagement is the energy, passion or fire that employees have towards their work and the employer. The challenges today is not just retaining talented people but fully engaged them, capturing their minds and hearts at each stage of their work performance. It is not surprising that organizations of all sizes and types have invested substantially in policies and practices that foster engagement and commitment in their workforces. Employees who are engaged in their work and committed to their organizations give companies crucial competitive advantages including higher productivity and lower employee turnover. Understanding the challenges of employee engagement enables the organisations to strategize on how to solve engagement and commitment problems to guarantee continued existence in this competitive environment.

5. Hypotheses for the Study

H1: Employee engagement is positively related to Organisational Citizenship Behaviour of employees in select IT firms of Kerala.

6. Research Methodology

The study adopted a survey method to study employee engagement and organizational citizenship behaviour. A three section online questionnaire was used for data collection. The first section of the questionnaire consisted of five items inquiring about demographic characteristics of respondents. The second section consisted of questions related to measure employee engagement. The third section consisted of questions related to measure organisational citizenship behaviour towards individual and organisation.

7. Measures Used

Organizational citizenship behaviour directed to the individual (OCBI) and organization (OCBO) was each measured by four-items each from Lee and Allen (2002). Participants responded using a five-point Likert-type scale with anchors (1)

never to (5) always. A sample item from the OCBI scale is, "Give up time to help others who have work or non-work problems" and a sample item from the OCBO scale is, "Defend the organization when other employees criticize it." The Cronbach's alpha value for OCB scale was 0.874, which were highly reliable. The 17 item Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002) was used to measure employee engagement. The scale verified an internal consistency (alpha) reliability of .927 for employee engagement scale which indicates highly reliable data.

8. Empirical Results

Table 1: Correlations

		EMPLOYEE ENGAGEMENT	OCB
EMPLOYEE ENGAGEMENT	Pearson Correlation	1	.641**
	Sig. (2-tailed)		.000
	N	136	136
OCB	Pearson Correlation	.641**	1
	Sig. (2-tailed)	.000	
	N	136	136

Source: Primary Data**. Correlation is significant at the 0.01 level (2-tailed)

Interpretation

In case of employees from IT firms in Kerala, there is positive significant relationship between employee engagement and Organisational Citizenship Behaviour [$r=.641^{**}$, $p<0.05$]. From table 1, it was clear that there is highly positive significant relationship between organisational citizenship behaviour and engagement. Hence we accept **H1**.

Table 2: Descriptive Statistics of Employee Engagement

Employee Engagement Dimensions	Mean	Std. Deviation
Vigour	3.5196	.70362
Dedication	3.7088	.83794
Absorption	3.6544	.74553
Average	3.6076	.76236

Source: Primary Data

Interpretation

Table 2 displays the mean and standard deviations for the three employee engagement dimensions which are vigour, dedication and absorption. The above table indicates that dedication is the highest (mean=3.7088, std. deviation=.83794) among employees who are engaged, followed by absorption (mean=3.6544, std. deviation=.74553). The lowest type of employee engagement among the employees is vigour (mean=3.5196, std. deviation=.70362). On average, employees have medium levels of engagement within the IT firms in Kerala (mean=3.6076, std. deviation=.76236).

Table 3: Influence of Age on Employee Engagement

ANOVA					
Employee Engagement					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.519	9	1.130	4.483	.002
Within Groups	32.004	127	.252		
Total	36.523	136			

Source: Primary Data

Table 4: Influence of Work Experience on Employee Engagement

ANOVA					
Employee Engagement					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.879	8	.293	1.052	.372
Within Groups	35.644	128			
Total	36.523	136			

Source: Primary Data

Table 5: Influence of Educational Qualification on Employee Engagement

ANOVA					
Employee Engagement					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.165	8	1.055	4.048	.009
Within Groups	33.358	128	.261		
Total	36.523	136			

Source: Primary Data

Interpretation

The one-way ANOVA was carried to find out if there is any influence on employee engagement by age, work experience and educational qualifications of the respondents and it is shown in Table 3, Table 4 and Table 5 respectively. From the tables mentioned above, it can be known that the demographic characteristics of the employees such as age (*since $p=.002$, $p<0.05$*) and educational qualification (*since $p=.009$, $p<0.05$*) has significant influence on the level of employee engagement among IT sector employees. But it was known that work experience has no influence on the level of employee engagement among employees in IT firms of Kerala.

9. Discussion

The data analysis was done using SPSS 21version. The responses to this study were made up 88% of respondents comprising of the senior management, middle management and juniors. 69.6% of the respondents were male with 31.39% the respondents being female. The Value of mean and Standard Deviation describe that majority of the employees are properly engaged in their work. Now days most of organizations give increase importance to employee engagement and employees' satisfaction survey, all that because of the noticeable positive effects when applied. One of the most important consequences is the improving of citizenship behaviour in the organizations. The present study tried to investigate the relationship between Employee engagement as independent construct and OCB as a dependent construct in the context of IT firms of Kerala. Pearson correlation coefficient was used to analysis and the correlation between the study variables such as OCB and employee engagement was tested. The findings of the study revealed a significant positive relationship between Employee Engagement and Organisational Citizenship Behaviour of employees in IT firms of Kerala.

The One-way ANOVA analysis is used to determine if there exists any significant and insignificant difference among the means of two or more independent groups. Table 3, Table 4 and Table 5 shows one – way ANOVA and shows analysis results of variance of demographic variables with employee engagement. The findings of the study described that all demographic variables do not show significant variation in employee engagement .The results indicates that age and educational qualification has significant influence on employee engagement level of select IT firms of Kerala but work experience doesn't show any influence on employee engagement level of employees in select IT firms. Engaged workers are likely to perform their tasks more efficiently and effectively. In case of OCB, the employees, connected to work, are presumed to create a social context that is beneficial to teamwork, helping, voice, and other important discretionary behaviours, which ultimately lead to organizational effectiveness. Therefore organizations should adopt the measures to cultivate and enhance worker's engagement, first through selection and then through designing of the job.

10. Implication and Conclusion

An implication of this study is the HR policies of the IT companies are not appropriate to deal with the future challenges IT sector in Kerala. The results and the implications of the study are based on the assumption of the accuracy of the data as provided by the respondents of this research study. Organizations facing the menace of high attrition rate have to understand that higher salaries and big names in the industries are not the only decisive factors for employees to abandon the current organization. The reasons are galore. Organizations need to check and maintain the system hygiene to keep up the faith of the employees. Such steps will definitely reduce the poignancy of parting and separation. That is how a win-win situation for both organizations and employees can be achieved. Understanding the challenges of employee engagement enables the organizations to strategize on how to solve engagement and commitment problems to guarantee continued existence in this competitive environment.

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COMPETENCY GAP ANALYSIS AMONG THE EMPLOYEES OF PRIVATE SECTOR BANKS - A STUDY WITH SPECIAL REFERENCE TO ERNAKULAM DISTRICT

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Abstract

The banking system in India is currently poised for far reaching changes. Along with conventional banking the banks will also enter areas of modern business ventures. These changes will call for new knowledge, skills and attitudes and training systems will have to stand up to these challenges. Therefore, it appears necessary to investigate if there is any difference in job competency expectations held by the banking sector for their employees between the required competency levels to the existing level of working. Thus, the study is to make a competency assessment; analyzing the gap between the required and existing skill set among the executive and non-executive employee in private commercial banks in Ernakulam District, Kerala. The study also identifies the dimensions of competency which are relevant and the role of competency in efficient performance of employees. The respondents in and around several selected private banks were randomly approached for their responses. Further detailed statistical analysis was done for the obtained data with the application of various analytical tools. On the basis of the analysis the dimensions identified were skill assessment, intellectual skills, service efficiency, empowerment, learning orientation, and team building, and cognitive competency, promotive cognitive and administrative competency. The results and interpretations reveal that four dimensions considered in this study have a significant gap among the employees and competency has significant impact on efficiency of employees.

Keywords: *Competency Assessment, Dimensions, Gap Analysis, Banking Sector, Skill Gap Analysis, Employee Development.*

1. Introduction

Banks competitive positions are constantly being challenged because of today's rapidly changing environment. Current and past successes do not guarantee success in the future. Clearly, the old paradigm of measuring the strength of an organization wholly or primarily on results is no longer sufficient. Banks are faced with a new challenge: how to build and measure organizational capability to support their growth and/or change strategies. In Indian banking sector, the employee's role, their needs and job roles are changing day by day. With the age profile of staff undergoing changes, banks will have to focus on

leadership development and succession planning. Therefore, it is absolutely essential for any bank to adopt those changes in the employees' role and respond according to the changes. Indian scheduled commercial banks are forced to maintain competency at every level in order to survive amongst the competitors, since bank employees are the backbone for the business organization. Based on the above discussed concept, this study aims to analyze and draw an introspective analysis on the competency level of employees in selected private commercial banks operating in Ernakulam district. The selected banks are the Federal Bank, South Indian Bank, ICICI Bank and HDFC Bank. This study tries to find out what are the competencies ruled for an individual to be a successful bank employee and identify the gap between the present skill and the required future skills. The key to achieving business growth and success is having a workforce with the capacity to continually learn, update their knowledge, and hone their skills in today's rapidly changing environment.

1.1 Banking Today

The advent of technological changes, especially extensive use of computers in the sector has changed the work patterns of the bank employees and has made it inevitable to advance the competencies of the workforce in the sector. Banking services growth in India is closely associated with the employee competency in the respective organization in the form of its productivity and profitability. Since banks in India generally appoints well-educated and technically sound work forces for execution of its financial operations. Thus, it could be rightly said that banking is a knowledge-intensive, skills-based and relationship-rich industry. In an increasingly complex and more liberalized environment, the competitiveness of banking institutions will depend critically on the equality of human intellectual capital and the extent to which industry is able to leverage on these talents. To compete effectively, banking institutions needs professionals with the requisite skills and expertise not only at the strategic and management level, but also at the technical and operational levels. Therefore, it appears necessary to investigate if there is any difference in job competency expectations held by the banking sector for their employees between the required competency levels to the existing level of working. Accurate job competencies need to be communicated to all the employed in the sector. Research indicates that the closer of the employer job competency expectations i.e., the required competency level to the actual job competency level of the employees brings the better chance for productivity improvement, multi skill development and the higher employees will rate overall job satisfaction. In a knowledge based economy, the performance of business organizations depends on ensuring that all categories of employees possess current and up-to-date knowledge and skill.

2. Literature Review

Early in the 1970s, (McClelland, 1973), a professor of Harvard University, proposed the idea of competency as a term used to challenge traditional criteria of assessment which had emphasized intelligence evaluation in the higher education system. His theme provided a conceptual framework that led to many subsequent

studies in other fields such as teacher education, vocational education, business management, and human resource management (Spencer & Spencer, 1993). To better understand international trade competencies, this section began by defining and grouping competency, followed by introducing the competency models, then discussing competency in Taiwan and the paradigm shift on competency. Hoffmann (1999) in his study analyzed past literature and summarized three key points in defining a competency: (a) underlying qualification and attributes of a person, (b) observable behaviors, and (c) standard of individual performance outcomes. Prastacos & Gregory (2012) provided a detailed analysis of application of competencies in banking sector and its impact on it. The study also identified the competencies needed for the sector and the developed competency areas like interpersonal excellence, decision making, sales management people management etc. It concluded that the competencies instill a culture of transparency, thus significantly motivating the human capital of the bank. Survey for the Indian Banking, Financial Services, and Insurance Sector (2010) in the survey conducted to systematically evaluate if there are gaps in the expectations and performance of newly hired MBAs in the Indian Banking, Financial Services, and Insurance (BFSI) sector.

The Skills Gap Survey found that gaps do exist, particularly in skills such as listening, and team work and collaboration; Attitudes such as self-motivation, self-discipline, and commitment and dedication; and Knowledge such as understanding organization and process; product, solutions, and services; and consumer behavior. Nithyavathi & Radha (2014) in their study aims to analyze with an introspective view on the various measures initiated by the scheduled commercial banks for enhancing their employees' job competency levels and the competency level of employees in selected commercial banks operating in Coimbatore district. The empirical data analysis found that there exist differences in the competency level of employee's working in one bank to the other. The report suggests that in today's competitive banking environment the bank cannot effect to recruit employees from non-financial discipline and train them frequently to adapt in their work nature. Instead bank must prefer to employees, those candidates who are specialized in banking operations and financial operations. The report on Human Resource and Skill Requirements in Banking, Financial Services and Insurance Sector (2010), analyses the skill requirements and gaps across various functions and levels in the banking sector. The report examined and identified the skill requirement and skill gap areas in different levels like executive-sales, executive-operations, branch manager and field executive. The study discussed the skill requirements and skill gaps in corporate banking as well as retail banking. The report identifies the major skill gaps in selling skills, communication skills, people management etc. which are essential for the banking organization. Among the bank employees in India, especially in the wake of the fast changing technology, there is a lacking of required skill. This aspect of competency gap has not been researched in any of the studies in the Kerala context. This study examines the competencies ruled for an individual to be a successful bank employee and identify the gap between the present skill and the required future skills.

3. Research Objectives and Hypothesis

The study was undertaken with the following objectives:

1. To identify the core competencies needed for executives and non-executive bank employees to perform optimally in their various jobs/tasks.
2. To analyze the influence of selected demographic variables on overall competency of employees.
3. To identify the competency gap of employees based on the determined competency dimensions.
4. To measure the role of competency mapping in the efficient performance of the employees.
5. Based on the above research objectives, certain hypotheses were developed and analyzed in this study.

4. Tools and Techniques of Analysis

The primary data were subjected to selected statistical tools keeping in view with the objectivity of study and hypothetical statements proposed for the study. The statistical tools used for the primary analysis are Cronbach's Alpha and Parallel, ANOVA, T-Test, Correlation, Factor Analysis for factor reduction, chi-square test, linear regression analysis and Kaiser-Meyer-Olkin (KMO) and Bartlett's Test.

4.1 Reliability Statistics

Table 1: Reliability Statistics of various dimensions

Variables	Cronbach's alpha	Cronbach's alpha based on standardized items	ANOVA	Reliability of scale- parallel
Basic Knowledge and Skill	0.701	.699	0.013	
Personal Competencies	0.639	.644	0.062	.639
Communication Skills	0.650	.643	0.017	
Leadership Skills	0.650	.652	0.395	.650
Technical Skills	0.764	.762	0.000	
Interpersonal Skills	0.676	.672	0.254	.676
Risk Management Skills	0.674	.673	0.011	
Behavioral Competencies	0.698	.700	0.047	
Planning and Objective setting	0.746	.746	0.003	

Reliability statistics shows the values of Cronbach's Alpha and ANOVA values for each variable. Generally it is insisted on a reliability score of more than .5 is desirable for Alpha and ANOVA values should be less than 0.05. In most of the cases, this criterion is fulfilled and the reliability can be ensured. In some cases, that is the ANOVA value of Personal competencies, leadership skills and interpersonal skills are not satisfying the required criterion. So other test for reliability is examined and the reliability of scale is satisfied in those cases as the minimum requirement is 0.5.

5. Results and Discussions

The data were analyzed via SPSS 21.0 for Windows. Descriptive statistics were used to describe and summarize the properties of the mass of data collected from the respondents. Parametric statistics like one way ANOVA and t-test pair-wise comparison were conducted to analyze any gap between employees on various dimensions of competency.

5.1 Identification of Core Competencies

Factor analysis is used for the identification of core competencies from the dimensions selected for the study. The Principal Component Analysis with Varimax and Kaiser Normalization is the method used to extract factors. The identified new factors were:

Table 2: Components extracted and final competencies identified

Variables used	Competencies identified
1. Basic knowledge and skill	Skill assessment
2. Personal competencies	Intellectual skills
3. Communication skills	Service efficiency
4. Leadership skills	Empowerment
5. Technical skills	Learning orientation
6. Interpersonal skills	Team building
7. Risk management skills	Cognitive competency
8. Behavioural competencies	Promotive nature
9. Planning and objective setting	Administrative competency

5.2 Employees Under Different Levels of Competency

From the analysis of the competency dimensions of different employees can be categorized into three based on the level of competency they possessed. The three categories are, people having low level competency, moderate level competency and high level competency. The categories can be identified by grouping their

response in to three separately for each dimension. Following table reveals the number of employees in each level of competency under various dimensions:

Table 3: No. of employees under different categories on each dimension

Competency Dimensions	Competency Levels (No. of Employees)								
	Low level			Moderate			High Level		
	Exe.	Non.	%	Exe.	Non.	%	Exe.	Non.	%
1) Skill Assessment	4	3	2	16	47	21	80	150	77
2) Intellectual Skills	12	12	8	47	82	43	41	105	49
3) Service Efficiency	6	18	8	43	97	47	51	85	45
4) Empowerment	16	5	7	38	106	48	46	89	45
5) Learning Orientation	5	10	5	42	63	35	53	127	60
6) Team Building	7	23	10	35	105	47	58	72	43
7) Cognitive competency	4	3	2	48	55	34	48	142	63
8) Promotive nature	8	14	7	49	83	44	43	103	49
9) Administrative competencies	14	4	6	46	79	42	40	117	52

5.3 Analysis of Demographic Variables on Competency

An analysis of demographic factors is done to determine whether there is any significant difference on competency based on the demographic classifications.

Hypothesis: Selected demographic variables significantly influence the overall competency of the employees

The following table shows the implications of test using ANOVA.

Table 4: Implications of test result using ANOVA

Demographic Variables	p- value	
	Executives	Non-Executives
Age with competency	0.000*	0.238
Gender with competency	0.392	0.127
Education with competency	0.399	0.055
Experience with competency	0.221	0.037*
Competency levels of employees in different banks	0.970	0.013

(*The difference is significant at 0.05 levels)

The test result shows that the difference is significant in only two cases. That is there is significant difference in competency of different age groups among executives and in the case of non-executives; the competency is significantly differ with respect to the experience.

5.4 Competency Gap of Employees on Various Dimensions

This research aims to analyze the competency gap of the two categories of employees, i.e. executives and non-executives based on the determined competency dimensions. Here the competency gap is identified using mean and standard deviation and analyzed using result of t-test.

Hypothesis: There exists a competency gap among the employees based on determined competency dimensions

Table 5: Competency gap based on mean and standard deviation and result of t-test

Dimensions	GAP		p- value (T-test)
	Mean	Standard Deviation	
1) Skill Assessment	0.07	0.14	0.2246
2) Intellectual Skills	0.11	0.111	0.0892
3) Service Efficiency	0.076	0.09	0.2315
4) Empowerment	0.23	0.15	0.0035*
5) Learning Orientation	0.05	0.06	0.5036
6) Team Building	0.18	0.14	0.0162*
7) Cognitive competency	0.28	0.13	0.0031*
8) Promotive nature	0.09	0.03	0.252
9) Administrative competency	0.22	0.05	0.012*
Overall Competency	0.089	0.01	0.032*

(*The difference is significant at 0.05 levels)

A total of 9 dimensions have been used to assess the performance level and identify the gaps. It is found that there exist competency gaps in four dimensions. They are empowerment, team building, cognitive competency and administrative competency. The t-test result also reveals that there exists gap among executives and non-executives in overall competency.

5.5 Competency Analysis Based on Different Dimensions

The expected competency is determined for the all dimension of competency and then competency gap among the employees is identified.

Table 6: Competency analysis and number of employees

DIMENSIONS	No. of executives			No. of non-executives		
	Expected Competency	More than	Less than	Expected Competency	More than	Less than
1) Skill Assessment	5.332	55	45	5.256	114	86
2) Intellectual Skills	5.320	53	47	5.436	106	94
3) Service Efficiency	5.092	49	51	5.014	107	93
4) Empowerment	4.587	52	48	4.812	101	99
5) Learning Orientation	4.913	58	42	4.962	117	83
6) Team Building	4.548	60	40	4.366	93	107
7) Cognitive competency	4.885	48	52	5.165	94	106
8) Promotive nature	5.124	51	49	5.212	103	97
9) Administrative competency	5.039	59	41	5.112	97	103

The comparison of actual competencies of the employees with their expected level of competency helps to determine the number of employees having more than expected competency and employees who are below the level of competency. The above table summarizes the analysis.

5.6 Employees in Different Competency Levels Based on Overall Competency

From the analysis of the competency of the employees, they can be grouped in to three based on the analysis of response. The competency is categorized in to three as Excellent Competency, Moderate Competency and Slacking Competency. The following table explains number of employees based on the category which belongs to the different competency levels.

Table 7: Range and number of employees in different competency levels

Competency	Executives		Non-Executives	
	Range	No. of Employees	Range	No. of Non-Employees
Excellent	More than 5.38	13	More than 5.45	36
Moderate	4.67-5.38	73	4.77-5.45	134
Slacking	Less than 4.67	14	Less than 4.77	30
TOTAL		100		200

From the analysis of the above the tables, it is clear that while comparing the executives and non-executives, highest frequency belongs to the moderate level of competency, namely 73 percent and 67 percent respectively. In the case of executives the second highest frequency is in the slacking level of competency. Similarly in the case of non-executives 18 percent of them belong to excellent competency level.

5.7 Role of Competency in the Efficient Performance of Employees

The role of competency in the performance of employees is identified using Pearson Co-efficient of correlation. Here the two variables are efficiency and competency. The SPSS output calculates the correlation coefficient to get a numerical indication of any correlation between the variables.

Hypothesis: Competency mapping significantly influence the efficient performance of employees

Table 8: Correlation analysis between efficient performance and competency of employees

Executives		Efficient Performance	Competency
Competency	Pearson Correlation	.724**	1
	N	100	100
Non-Executives		Efficient Performance	Competency
Competency	Pearson Correlation	.680**	1
	N	200	200
**Correlation is significant at the 0.01 level (2-tailed).			

From the analysis, the correlation between efficiency and the competency of executives is 0.724 and among non-executives it is 0.680. That is a strong positive

correlation which is significant at 5 percent level. That is competency and efficiency of the employees is related. Hence it is natural that when competency of the employees increases the efficiency also increases and vice versa.

5.8 Efficiency Estimation

The efficiency and competency is correlated and hence the efficiency level of employees increases as the competency increases. This can be estimated using an equation which is derived from the analysis of the present study. The equation for calculating the efficient performance of the employees is determined separately for executives and non-executives using linear model. The summary of analysis shows that the efficient performance of the executives and non-executives can be estimated using the following regression equation.

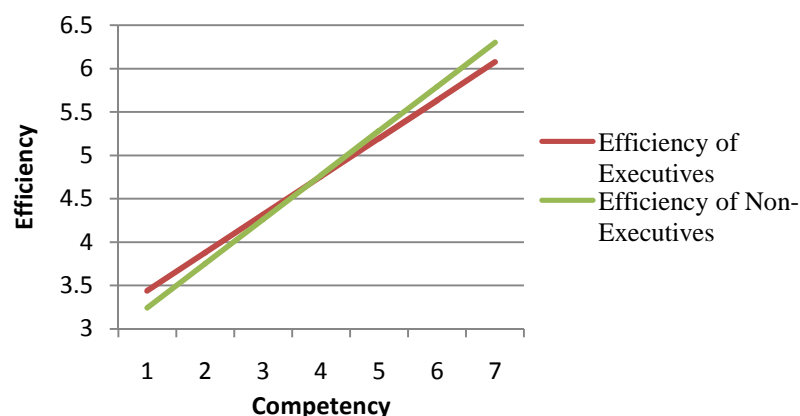
Efficiency of executives=0.801+0.879 Competency

Efficiency of non-executives= 0.184+ 1.020 Competency

The efficient performance of the executives and the non-executives is determined using the equation determined above and this estimation of efficiency for Executives and Non-executives at different competency is calculated as follows and then it is plotted to determine the more efficient group.

Table 9: Estimation of Efficient performance of Executives and Non-Executives

Competency	Efficiency of Executives	Efficiency of Non-Executives
3	3.438	3.2424
3.5	3.8775	3.7522
4	4.317	4.262
4.5	4.7565	4.7718
5	5.196	5.2816
5.5	5.6355	5.7914
6	6.075	6.3012



The graph indicates the relation between the competency and the efficiency of executives and non-executives. From analyzing this it is clear that when competency of the non-executive employees increases with the level of competency compared to the executives.

6. Conclusion

HRD in banks can be defined as “planning, organizing, directing and controlling of a program that has a wide range of activities relating to the development of employees in terms of enabling them to acquire competencies needed to perform their present and future jobs with ease and enthusiasm”. It is a continuous process to ensure the development of employee competencies, dynamism, motivation and effectiveness, in systematic and planned manner. The present study has been attempted to identify gaps in the competency levels executive and non-executive banks employees in Ernakulam District. A total of 9 dimensions have been used to assess the performance level and identify the gaps. It is found that there exist competency gaps in four dimensions. They are empowerment, team building, cognitive competency and administrative competency. The t-test result also reveals that there exists gap among executives and non-executives in overall competency.

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