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CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	A STUDY OF IMPLEMENTATION OF BI SOLUTIONS AT SELECTED BRANCHES OF BANKS IN RAJASTHAN <i>DR. AZIMUDDIN KHAN</i>	1
2.	ROLE OF WOMEN IN IT: TODAY & TOMORROW <i>DR. KIRAN ARORA</i>	5
3.	POWERS LANGUAGES AND TEACHERS FORGETFULNESS <i>DR. MIGUEL ALBERTO GONZÁLEZ GONZÁLEZ</i>	7
4.	AN ANALYSIS OF RURAL DEVELOPMENT THROUGH MNREGA IN DISTRICT MANDI OF HIMACHAL PRADESH <i>SANJAY KUMAR & DR. SHYAM LAL KAUSHAL</i>	11
5.	A DETAILED STUDY ON INDIAN CHILD LABOUR PROBLEMS AND PROSPECTS <i>DR. ALLA.JAGADEESH BABU</i>	16
6.	OCCUPATIONAL STRESS AMONG SOFTWARE EMPLOYEES: ROLE OF CORPORATE COMPANIES <i>NAGARAJ NAIK. M & DR. KODANDARAMA.</i>	22
7.	PERFORMANCE OF REGIONAL RURAL BANKS: WITH SPECIAL REFERENCE TO ANDHRA PRADESH GRAMEENA VIKAS BANK, ANDHRA PRAGATHI GRAMEENA BANK AND DENA GUJARAT GRAMIN BANK <i>DR. S. SELVAKUMAR & S. PAVITHRA</i>	26
8.	AN EMPIRICAL ANALYSIS OF HEALTHCARE SPENDING IN INDIA: EVIDENCES FROM MAHARASHTRA AND BIHAR <i>UPANANDA PANI & PRAVIN GANGADHAR JADHAV</i>	31
9.	CUSTOMER PERCEPTION IN INDIAN RETAIL INDUSTRY <i>MANOJ KUMAR SINGH</i>	42
10.	CONSUMER AWARENESS AND CONSUMER PROTECTION ACT: A CASE STUDY WITH SPECIAL REFERENCE TO EAST DISTRICT OF SIKKIM <i>SANJAYA KUMAR SUBBA</i>	45
11.	A STUDY ON JOB SATISFACTION OF EMPLOYEES OF GOVERNMENT SCHOOLS AND PRIVATE SCHOOLS IN JAGDALPUR <i>DR. ARUNA PILLAY</i>	49
12.	IMPACT OF BRAND IMAGE ON CONSUMER BUYING BEHAVIOR OF INSTANT FOOD PRODUCTS <i>S. KALPANA & HEMAVATHY RAMASUBBIAN</i>	53
13.	BPO INDUSTRY IN INDIA: TRENDS AND CHALLENGES <i>DR. SHRUTI GUPTA</i>	56
14.	DECODING THE 'STARBUCKS' FRENZY: A COMPARATIVE STUDY WITH CAFÉ COFFEE DAY <i>KHUSHBOO GUPTA</i>	59
15.	A STUDY ON HEALTH, SAFETY AND WELFARE MEASURES IN SIMPSON & CO. LTD, CHENNAI <i>RAJANI KUMARI & DR.R.ALAMELU</i>	63
16.	IMPACT OF SERVICE QUALITY ON CUSTOMER SATISFACTION OF PUBLIC AND PRIVATE SECTOR BANKS <i>BHOOMI PATEL</i>	66
17.	EMPOWERING WOMEN AT PANCHAYAT LEVELS THROUGH RESERVATION & EDUCATION: A SPECIAL STUDY IN THE SAMASTIPUR DISTRICT OF BIHAR, INDIA <i>DR. SWETA</i>	77
18.	EFFECTIVENESS OF FORENSIC ACCOUNTING IN THE DETECTION AND PREVENTION OF FRAUD IN NIGERIA <i>ABU SEINI ODUDU & YUSUF MOHAMMED ALIYU</i>	80
19.	APPLICATION OF TOTAL QUALITY MANAGEMENT (TQM) TOOLS TO SOLID WASTE MANAGEMENT: THE CASE OF MOMBASA MUNICIPAL COUNCIL <i>RIUNGU, IRENE KARIMI</i>	86
20.	STUDY ON TURMERIC PRODUCTION AND GROWTH IN ERODE DISTRICT <i>M.ANAND SHANKAR RAJA & SHENBAGAM KANNAPPAN</i>	94
	REQUEST FOR FEEDBACK & DISCLAIMER	98

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JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

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A STUDY OF IMPLEMENTATION OF BI SOLUTIONS AT SELECTED BRANCHES OF BANKS IN RAJASTHAN

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ABSTRACT

The decision can be improved with better quality of data, tools and technology, flexibility and sound judgments taking capability of decision makers. Business intelligence systems facilitate the decision makers to correct their intuition by taking advantage of analytical tools, which can test and verify intuition before applying it to the decision making process. Decision maker can also use predictive models to improve their decision making. Today's competitive environment is forcing banks to reap the real benefits of business intelligence. A study has been made on 25 selected branches of Indian banks in the state of Rajasthan, to understand the impact of respondent's characteristics on practices followed for BI Implementation. It is observed that the management commitment, data quality, and CBS implementation tops among all practices followed while implementing business intelligence in branches of banks. The importance about organizational and technological practices factor do not vary significantly among the qualification and age of respondents where as these factors significantly vary with experiences of employees. The young employees are more IT savvy and having better IT skills and user initiatives. The research is particularly useful for practitioners in the banking field.

KEYWORDS

Banking, BI Implementation, Business Intelligence, Decision Making, Management, Data Quality.

1. INTRODUCTION

The banking industry is becoming increasingly competitive with industry consolidation and convergence, to retain and attract asset of an aging population, complexity of financial instruments and markets are facing ever-changing regulatory requirements from both local and global bodies, making it more and more challenging for banks to sustain and generate profits. Banks have started the utilization of business intelligence with implementation of core banking system. Many banks have implemented the Customer Relationship Management software (CRM) to understand the needs of the customer. With a vast range of customers and customer needs, address the need for transparency, risk management, and stay ahead of the competition, banks need low-cost, innovative solutions that deliver a connected customer experience across all channels. Banks need to use all the tools at their disposal to manage challenges and ensure their own financial stability through intelligent business solutions.

The business intelligence software to report on, analyze, and monitor the vast branch data through a business intelligence architecture that helps branch to reduce costs, increase revenue, profit analysis by branch, pickup most profitable customers, services and locations, manage credit risk, standardize portfolio and credit analysis and maximize the value of information by giving 360-degree overview of financial and operational results.

2. REVIEW OF LITERATURE

A review of literature of various studies related to implementation of business intelligence solution in the banks and factors both technological and organizational plays important role in implementation of BI at branch level. Shari and Spyro (2004) stated that regardless of how impressive a business intelligence solution is, its true value lies in enabling an organization to improve its revenue stream, not just cost containment. The best way to justify the incurred costs is to leverage the technology to improve the business processes related to revenue generation, product development, customer acquisition or retention, cross-selling, inventory management and new markets. The true benefits of a business intelligence solution can be recognized when the decision-making capabilities are enabled throughout the organization. This means the management team can gauge how the company is performing.

Howson (2008, p2) stated that business intelligence can only provide business value when it is used effectively by people. There is a correlation between the effective use of business intelligence and company performance. Business intelligence provides the insight of business to the manager on more timely and flexible basis. When any particular metric is not where it should be, BI allows users to explore the underlying details to determine the reason. When BI is used in a company without a sound business strategy, performance will not improve.

IBA-Finsight (2007) special report suggests about the operational business intelligence in banking, it delivers information and insights to those manager that are involved in operational and transactional processes. While serving a customer at a counter, the executive can cross sell other product based on the information and analytics available from operational business intelligence system based on customers past transactions. The operational business intelligence reduces the time it takes for a line of business user or application to react to business issue or requirement. The data latency to data warehouse should be as small as possible to get operational analytics. As per report (2014) by Yes Bank, Indian private sector banks have made investments in Business Intelligence (BI) primarily around the consumer/retail segment of customers & not so much focused on corporate customers.

A report from EY and IDRBT (2014) says banks are realizing the need to use Business Intelligence and analytics to increase their business and differentiate the customer experience (a) to acquire new customers (b) service their existing ones better, (c) increase the savings of their existing customers through segmentation and by identifying and capitalizing on opportunities for cross-sell and up-sell, (d) improve retention and loyalty of customers, (e) monitor their portfolios more effectively, (f) implement efficient risk management controls to reduce credit- and fraud-related losses and (g) obtain insights on how they can enhance their products or product bundles to address the unique needs of their customers. In the absence of robust BI systems, banks struggle to answer the questions about unique customers (not just accounts), products per customer, services provided per customer, the cost of providing these services, the profitability of and demand for their products, etc

3. METHODOLOGY

A structured questionnaire was developed for collecting the data related to implementation of business intelligence solutions at branch level. The questionnaire seeks to extract responses from IT Manager/Branch Manager or In-charge of BI or Person who understood and utilizing business intelligence solutions at branch level. The branches of banks were selected within the geographic region of Rajasthan. They were identified through stratified judgment sampling.

TABLE 1: RESPONSE PATTERN OF BANKS AT BRANCH LEVEL

	No. of Respondents		Responses
	Approached	Respondents	
Public Sector Banks	14	12	86%
Private & Foreign Banks	11	8	73%
Total	25	20	80%

The data has been collected about the respondent organization like name of bank, inception year of bank, category of bank and to get knowledge about business intelligence used in banking by framing various questions related to practices followed for implementation of business intelligence solutions in bank.

Implementation of business intelligence solutions in banks with the practices followed were categorized in term of organizational factors such as management commitment, effective steering committee, user initiative, availability of IT skills, analyst and training facilities, work culture, qualities of BI staff and implementation consultant, and partnership between IT and business. Banks which were established in 1994 and thereafter considered as new banks while banks which were established before 1994 were considered old banks. Public Sector Banks means any Government Sector Bank/Institute that goes public i.e. it issues its shares to general public. It also has a greater share of Government of India or Reserve Bank of India (more than 50%).

3.1 THE SAMPLE PROFILE

The data collected in the form of demographics from branches of the banks is having two categories; respondent information and organization information.

A. RESPONDENTS' PROFILE

The respondent information was described in the form of gender, age, qualification, experience in this bank, total banking experience, working at regional, zonal, project or head office, phone and email address. Table 2 provides a summary of respondent information.

TABLE 2: RESPONDENTS' PROFILE AT BRANCHES

Criteria	N	%
Gender		
Male	18	90%
Female	2	10%
Age (Year)		
<30	1	5%
30-45	9	45%
>45	10	50%
Total Experience (Years)		
Less Experience(<=10)	7	35%
Experience (>10)	13	65%
Present Bank Experience		
Less Experience(<=10)	8	40%
Experience (>10)	12	60%
Qualification		
Professional (MBA,MCA, BE, CAIIB)	13	65%
Post Graduate	4	20%
Graduate	3	15%

It is evident from the table that highest number (50%) of respondents belongs to age group of 45+ years where as 45% respondents in the age group 30-45 years and only 5% belongs to less than 30 yrs. The 65% respondents are professionally qualified and they had acquired the degree like MCA, MBA, BE or CAIIB qualified where as 20% are post graduates and only 15% are graduates. It is also clear from the table that respondents' total banking experience is more (60%) in case 10+ years where as 40% are of less than 10+ years experience. The similar pattern is for present bank experience of respondents. The 90% of respondents are male and only 10% respondents are female.

As per table 3, the distribution of qualification over category of banks, It is clear that private and foreign banks are having 100% professionals where as public sector banks are having 41.7% professionals, 33.33% post graduate and 25% graduates. It is interesting to note that private and foreign banks are having 100% employees with less than 10 years of banking experience where as 100% public sector banks employees are at 10+ years.

TABLE 3: RESPONDENTS' PROFILE WITH DISTRIBUTION OF CATEGORY OF BANK AT BRANCHES

Criteria	Public		Private & Foreign	
	N	%	N	%
Total Experience (Years)				
Less Experience(<=10)	0	0	7	87.5
Experience (>10)	12	100	1	12.5
Qualification				
Professional (MBA,MCA, BE, CAIIB)	5	41.7	8	100.0
Post Graduate	4	33.3	0	0.0
Graduate	3	25.0	0	0.0

B. ORGANIZATIONS' PROFILE

Researcher has collected the data from branches and profile of respondents' bank is described in the form of inception year of bank, category, information technology uses, information technology tools, and Core Banking System (CBS) software. Table 5.3 provides a summary of organizations' profile.

As per Table 4, it exhibits that almost 65% banks included in the study are old banks which were established before 1994, where as 35% banks are categorized as new banks. As per the table, 60% banks belong to public sector bank, 40% are private and foreign banks.

TABLE 4: ORGANIZATIONS' PROFILE AT BRANCHES

Criteria	N	%
Bank Existence year		
Old (Before 1994)	13	65%
New	7	35%
Bank Category		
Public	12	60%
Private & Foreign	8	40%
IT Usage		
Total IT Based	17	85%
IT + Manual	3	15%
Manual Only	0	0%
IT Tools		
Single	9	45%
Multiple	11	55%
CBS Software		
Finacle	10	50%
BaNCS 24	3	15%
Oracle Flex	3	15%
Other	4	20%

Table 4 shows that 85% banks are using information technology based working and only 15% banks are having combination of information technology and manual working. Banks included in the study, 55% are using multiple software where as 45% using single software for all function. It is clear from the table that "Finacle" is used by 50% banks, BaNCS 24 by 15%, Oracle Flex is utilized by 15% banks and 20% banks are using other software for their core banking.

4. ANALYSIS OF APPLICABILITY OF BI IN BRANCHES

The instrument has been prepared to get the responses from the branches, about the questions related to business intelligence in banking including important practices, applicability of business intelligence in banks working, and financial benefits.

Responses were collected from branch head or operation head of the various banks on the various items by using 5-point rating scale of importance, where 1 = very poor, 2 = low, 3 = medium, 4 = high and 5 = very high. The respondents indicated the extent to which they attach importance on various factors.

4.1 IMPORTANCE ATTACHED TO THE PRACTICES FOLLOWED FOR BI IMPLEMENTATION

Table 5 shows the list of important practices followed by respondent's banks to implement the business intelligence solutions, the mean score for each, standard deviation, co-efficient of variance (CV), and the results of One-Sample Kolmogorov-Smirnov Test for difference between means. The items on practices in the table are arranged in descending order according to their mean score level.

It is observed from the table 5 that the management commitment, data quality, and CBS implementation tops among all practices, and the mean score of 3.90 suggests that, it is given highest importance by respondents while implementing business intelligence in branches of banks. These results are in general similar to regional/zonal offices' response.

It is informative to note that IT skills and User initiatives are given least importance (mean score 2.20 and 2.05). As most of the branches, do not have IT skilled (IT Manger) persons at branch level.

TABLE 5: DESCRIPTIVE STATISTICS OF PRACTICES FOLLOWED (BRANCH)

Practices	Mean Score*	Std. Deviation	C.V. (%)	Result @5%
Commitment	3.90	0.85	21.85	NS
Data Quality	3.90	0.79	20.21	NS
CBS Implementation	3.90	0.64	16.43	S
Query Response	3.40	0.82	24.14	NS
BI Operational	3.10	1.12	36.10	NS
Training Facility	2.95	0.69	23.27	S
DW Update time	2.85	1.35	47.32	NS
Complexity	2.80	1.06	37.73	NS
IT Skills	2.20	1.47	66.93	NS
User Initiative	2.05	0.94	46.07	NS

* Mean score is the average on 5-point interval scale of importance
S=Mean importance score is significantly greater than that listed immediately below, based on One-Sample Kolmogorov-Smirnov Test
NS=Mean importance score is not significantly greater than that listed immediately below, based on One-Sample Kolmogorov-Smirnov Test

CBS implementation has the lowest variation (CV=16.43%) in responses, which means that the responses are consistent on this practice and therefore mean score can be considered highly representative where as IT skills has the highest variation (CV=66.93%) which means that responses on these practice varied greatly and therefore it can be said that mean score is least representative.

The last column of table shows the results of One-Sample Kolmogorov-Smirnov Test for difference between means at 5% level of significance. As per test, Implementation of CBS, and Training facility found significant. It indicates there is almost certainly a true difference in these practices. All other than these two practices followed for implementation of business intelligence are statistically non significant.

4.2 INFLUENCE OF RESPONDENT'S CHARACTERISTICS

It is assumed that certain respondent's characteristics such as age, qualification and experience may have influence on the important practices followed for business intelligence solution implementation.

The practices have been grouped into three factors; first is Organization factor which includes management commitment, user initiative, training facilities, and IT skills, second is Technological factor which includes data quality, complexity of BI solution, implementation of core banking system (CBS), ERP, CRM and SCM, Data warehouse update time and query response time. 1-5 point scores are summed to make these factors. For this, different null hypothesis have been formulated and tested by adopting One-Way ANOVA procedure. The hypotheses were tested at the significance level of 5%.

4.2.1 INFLUENCES OF AGE GROUP

In the respondent's profile the age group has been discussed as three categories age<30, 30-45, and age >45 years. For analyzing the influence of age on important practice adopted for BI implementation, total four hypotheses have been formulated. The hypothesis is;

H₀1: There is no significant difference among the various groups of age with regards to their perception about the importance of the organizational factor for the implementation of BI in branches of banks.

Similarly null hypotheses were developed for perception about importance about financial, technological factors, aggregate practices with reference to age. All the hypotheses were tested by one-way ANOVA for difference between means at 5% level of significance. Table 6 displays mean scores, calculated F-value and results of the test.

TABLE 6: ONE-WAY ANOVA TEST FOR IMPORTANT PRACTICES V/S AGE AT BRANCH

Null hypotheses for Different practices	Mean Scores			Calculated F-Value	Result @5%
	Age < 30	30-45	Age>45		
H ₀₁ : Organizational factor	16.00	12.56	9.30	6.150	S
H ₀₂ : Technological factor	25.00	21.78	17.80	3.529	S

It is clear from the table that both hypotheses are rejected. This proves that the perception about the importance of the organizational, and technological practices factors vary significantly among the different age groups of respondents' banks. The respondents who belong to <30 age group have higher mean score which proves that this group is more influential in following practices for implementing BI solutions.

4.2.2 INFLUENCES OF QUALIFICATION OF RESPONDENTS

In the respondent's profile, qualification has been discussed as three categories professional, post graduate, and graduate. For analyzing the influence of qualification on important practice adopted for BI implementation, two hypotheses have been formulated.

TABLE 7: ONE-WAY ANOVA TEST FOR IMPORTANT PRACTICES V/S QUALIFICATION AT BRANCH

Null hypotheses for Different practices	Mean Scores			Calculated F-Value	Result @5%
	Professional	Post Graduate	Graduate		
H ₀₃ : Organizational factor	12.15	8.75	9.67	2.647	NS
H ₀₄ : Technological factor	21.15	18.50	16.67	1.763	NS

It is clear from the table 7 that both of hypotheses are accepted. This proves that the perception about the importance about organizational, and technological practices factor do not vary significantly among the qualification of respondents.

4.2.3 INFLUENCES OF EXPERIENCE

Researcher has categorized the banking experience in two categories for the purpose of analysis, respondents who are having total banking experience up to 10 years were considered as less experienced where as those who had more than 10 years of experience were considered as experienced. All the hypotheses were tested by t-test for difference between means at 5% level of significance. For understanding the influence of experience on important practices followed for BI implementation, two hypotheses have been framed.

TABLE 8: t-TEST FOR IMPORTANT PRACTICES V/S EXPERIENCE

Null hypotheses for Different practices	Mean Scores		Calculated t-Value	Result @5%
	Experience <=10	Experience >10		
H ₀₅ : Organizational factor	13.86	9.62	3.879	S
H ₀₆ : Technological factor	22.71	18.46	2.366	S

As per table 8, it is revealed that hypotheses H₀₅ and H₀₆ are rejected at 5% significance. This means that there is significant difference between the less experienced and experienced person with perception about the importance of the organizational and technological practices factor. The hypothesis H₀₅ is rejected because less experienced group respondents are more IT savvy and having better IT skills and user initiatives. The hypothesis H₀₆ is rejected on ground of higher data quality, CBS implementation, and operational BI is more adopted by less experience group as compared experienced group.

CONCLUSION

The implementation of business intelligence solution at branch level has become the need of an hour. The branch manager should utilize the available analytics for their day to day operations. The young bank professionals are more acceptable to the technology and hence can better use of available information for making right decision at right time to increase the profitability of branch.

REFERENCES

1. EY and IDRBT Report (2014), "technology in Banking", Ernst and Young, 2014, p7.
2. Howson Cindi (2008), "Successful Business Intelligence: Secrets to making BI a Killer App", The McGraw-Hill companies, NY, pp2-3,54-59.
3. IBA-Finsight (2007), "Operational Business Intelligence in Banking", Special Report by IBA and Finsight, Finsight Media, pp9-14.
4. Shari Rogalski and Spyro Karakizis, 2004, "Business Intelligence Benefits: Don't Forget the Revenue!", Information Management Magazine, January 2004, p1.
5. Yes Bank Report (2014), http://www.yesbank.in/images/all_pdf/Transformation Series2015_Case.pdf retrieved on 30th April, 2015, p6.

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