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From the Desk of Editor

It is a moment of happiness to place before you the first issue of tenth volume of Ethos. The journal has entered into 10th year of its publication devoted to publish research article in the management and allied areas.

Ethos has also got the place in the journal list of UGC at serial number 45778.

After a long time Dr. Pravin Mahamuni has contributed book review of a book Jugaad Innovation. At Ethos we had offered variety of options for contributions viz. technical paper, review article, book review, bibliography, Ph.D. thesis extract and the like.

This volume of Ethos carrying six papers consisting five empirical papers and a book review.

Manjusha Mathapati in her empirical paper tested the hypothesis that, E- CRM is vary ctucial for banks, both private banks as well as nationalized and cooperative banks to survive in the competitive market and be a winner among its competitors. The data of 600 samples across 12 banks have been handled. Dr. Mundhe an expert in computer management thrown light on water usage for sugar cane crops using expert system in his empirical paper. One of the growing field of todays economy is Agro Tourism. Savita Mane has contributed the infrastructural facilities at agro tourism destinations with its perceived satisfaction of samples. Issues on the progress of urban cooperative banks has been discussed by Ashok Jadhav is a empirical study. Dinkar More has probed into analysis of employability skills for functional area of management using Kano approach.

I hope that the articles contributed by research scholars and academicians would be immensely readable and beneficial to stakeholders. I look forward to your valuable feedback to enable us enthrall readers and ensure continuous improvement.

DR. B.S. SAWANT
Editor-in-Chief

E-CRM Services : A New Business Strategy for Survival of Banks with reference to Selected Banks in Bangalore City

Manjusha Mathapati, Vasant B.Kodag

Abstract:

A strong banking foundation is a support wall for economy of any country. Without a sound and effective banking system, any country cannot have a healthy economy. India's banking system has several extraordinary achievements to its credit. The most striking is its incredible global reach. Indian banking system is no longer, confined to metropolitan or cosmopolitan reach. In fact, Indian banking system has reached even to the remote corners of the country, which is the real need for India to emblem itself on the international platform of success. But apart from its performance parameters, for any service industry, Customer is the pivotal point. The success level of the industry lies fundamentally on the satisfaction level of its customers. Thus at times to satisfy its customers, service industries like banking need to go beyond its performance considerations to reach its customers physically as well as psychologically. ECRM is such magical tool for the success of banks.

This paper has tried to make sincere efforts to study the impact of application of ECRM services on the survival of banks with reference to selected banks in Bangalore city. The study is based on the primary data collected from the customers of the banks to know the ECRM services provided by the respected banks. The sample of the banks consisted of 12 banks, 4 Nationalized banks, 4 Co-operative banks, 3 Private Banks and 1 State Bank of India. Variation of banks were taken into consideration to have major coverage of banks to reach to best conclusions. The survey instrument used for the research was collected by framing 2 questionnaires, 1 for the customers of the bank and the second for the bank officials, which included open ended as well as Likert type of questions for wider scope of information. The instrument was administered to 600 bank customers. The statistical technique used for analysis was ANOVA analysis. The ANOVA analysis revealed the relationship between the use of ECRM services as a business strategy and survival of banks. The entire discussion reveals that E-CRM is very crucial for banks, both private banks as well as nationalized and cooperative banks to survive in the competitive market and be a winner among its competitors.

Keywords: Indian banks, customer satisfaction, ECRM services, survival of banks.

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Introduction :

The benchmark of success in the banking sector has experienced raise and heights today.

Advent of information and technology has changed the definition of banking today. Before Internet era, consumers largely selected their banks based on how convenient the location of bank's branches was to their homes or offices. Convenience and ease on the part of banking operations was another reason for selection of a particular bank. However, with the introduction of new technologies in the business of bank, such as Internet banking, mobile banking and ATMs, now customers can freely choose any bank for their transactions. Thus, the customer base of banks has increased and so has the preference criteria of customers for selecting the banks. This is just the beginning of the story. Due to globalization new generations of private sector banks and many foreign banks have also penetrated in the market and they have brought with them several useful and innovative products. Due to forced competition, public sector banks also need to become more technology savvy and customer oriented. Thus, non-traditional competition, market consolidation, new technology, and the proliferation of the Internet are changing the competitive landscape of the retail banking industry. Multiple products, multifaceted channels of distribution, talented and versatile customer groups, characterize today's banking sector.

Bouquet of services is at customer's demand in today's banking system. Today, the customers have many expectations from their bank such as service at reduced cost, Service "Anytime Anywhere" and Personalized Service. With increased number of banks, products and services and practically nil switching costs, customers are easily switching banks whenever they find better services and products. Banks are finding it drastically tough to get new customers and more importantly retain existing customers. Today Banks have to look much beyond just providing a multi-channel service platform for its customers. There are other

pressing issues that banks need to address in order to chalk-out a roadmap for the successful future. Let's have a look towards the following statistics:

5% increase in customer retention can increase profitability by 35% in banking business, 50% in insurance and brokerage, and 125% in the consumer credit card market. Therefore, banks are now stressing on retaining customers and increasing market share.

E-CRM : A New Business Strategy for Banking Sector

Electronic Customer Relationship Management is the newest phenomenon in the context of customer relationship management approaches. Today's business world which is highly fast driven by technology and step by step up gradation in technology from time to time, it has led to rigorous and tremendous increase in competition and which has in turn led to more and more focus on customer retention and attraction on the part of the business organizers. It has been observed that now every industry has changed its focus from product concentration to customer concentration and orientation. Every effort is observed on the part of the industry to employ and implement customer-orientation projects from time to time, again and again to meet customer requirements to the fullest, survive toughly among the hard core competitors standing as differentiated and most importantly to maintain and sustain a long term relationship with the existing customers, which is possible only with the help of clubbing of traditional and technological ways. And so, today one cannot deny the strategic importance of online business tactics in this ever growing internet era.

Entry of new banks resulted in a paradigm shift in the ways of banking in India. The growing competition, growing expectations led to increased awareness amongst banks on the role and importance of technology in banking. The arrival of foreign and private banks with their superior state-of-the-art technology-based services pushed Indian Banks also to follow this by going in for

the latest technologies so as to meet the threat of competition and retain their customer base. In the internet era, where actions and decisions are made at the click of a button, it has now become extremely important to route critical information through appropriate processing channels in an effective and timely manner. This allows for quick response to customer needs and providing a high quality customer support leading to healthy and profitable relationships with the customer. Thus, here originated the concept of E-CRM i.e. Electronic Customer Relationship Management which has taken deep roots from previous decade. In today's business world it is very necessary for an organization to satisfy the needs and requirements of the customers as fast as possible. One who is capable to respond its customers' needs and demands with ever growing innovations in products and services at the earliest are going to be the leaders for tomorrow. Others who fail to do so are wiped out from the market. This is possible only with the help of technology. Banks can today easily learn more and more about their customer's choices, preferences, needs and demands with the help of technology. Taking into consideration this current scenario of market for banking industry, an attempt has been made in this paper to study the impact of application of ECRM services as a strategic tool for business survival.

Literature Review:

Philip Kotler & Gary Armstrong (2010) in their book, Principles of Marketing, have opined, "*No matter what its orientation, marketing management's crucial task is to create profitable relationships with the customers. Until recently, customer relationship management has been defined narrowly as a customer database management activity. By this definition, it involves managing detailed information about individual customers and carefully managing customer "touch points" in order to maximize customer loyalty.*" More recently, ECRM has taken on a broader meaning. In the broader sense, apart from mere provisions of quality goods and services,

today customer relationship has acquired greater prominence. ECRM is the way through which building and maintaining profitable customer relationships by delivering superior customer value and satisfaction becomes possible. Thus, today's companies are going beyond designing the strategies to attract new customers and create transactions with them. They are using ECRM to retain current customers and build profitable, long-term relationships with them. This action of the organizations give rise to the new view of marketing, saying marketing is the science and art of finding, retaining, and growing profitable customers. Companies have now realized that losing a customer means not just losing a customer or a single sale. But it is more than that. It means losing the entire stream of purchases that the customer would make over a lifetime of patronage. Thus the key to building lasting customer relationships is to create superior value and satisfaction. Satisfied customers are more likely to be loyal and loyal customers are more likely to give the company a larger share of their business. ECRM is one of such best successful strategy. Stanley A. Brown, (2000), in his article, Customer relationship management: *A Strategic Imperative in the World of E-Business*, has focused on the importance of CRM in Business world. The view that if your product is best and superior in the market, customers tend to turn back has been left out decades ago. This view has been replaced by the view that if you want to gain a sustainable portion of market, your best product is not enough. One step, one edge ahead is necessary. To compete effectively in today's marketplace, organizations need to change and so have changed their strategy to become more customer focused, not product focused. "Customer Relationship Management (CRM) is the best way to integrate this customer-facing approach throughout an organization. Aimed at understanding and anticipating the needs of an organization's current and potential customers, ECRM links people, process, and technology to optimize an enterprise's revenue and

profits by first providing maximum customer satisfaction.” Here the author is found giving more prominence to the concept that ECRM is a link between the firm and its customers where the people get connected to the processes with the help of technology. A recent McKinsey & Co. study, 2000 revealed some interesting facts. A 10% gain in repeat customers can add about 10% to the company’s profits. On the other hand, a 10% reduction in the total marketing expenditures needed to attract new visitors adds only 7% to the bottom line. This clearly indicates that keeping existing customers happy is more profitable than going after greater numbers of new customers, even when a company is able to spare down the cost of attracting those new potential customers. The best way to keep these existing customers happy is to deliver value to them on their own terms.

In a recent study, Anderson Consulting (2001) found that a typical \$1 billion high-tech company can gain as much as \$130 million in profits by improving its ability to manage its relationships with their existing customers. Anderson Consulting also found that as much as 64% of the difference in return on sales between average and high performing companies is contributed by ECRM performance. Thus, one can understand that the well-planned implementation of an ECRM system produces a winning situation for customers as well as the companies. Improvements in the overall customer experience lead to greater customer satisfaction, which in turn has a positive effect on the company’s profitability. According to Scullin (2002), *Electronic Customer Relationship Management: Benefits, Considerations, Pitfalls and Trends, 2002*, “*A proper ECRM implementation can help the respected organizations in a bundle of ways such as increased customer loyalty, more effective marketing, improved customer service and support*

and greater efficiency and cost reduction.” Here the author is found emphasizing on benefits provided by ECRM approaches when implemented by the firms. These benefits include some quantitative benefits such as cost reduction, surplus business etc while qualitative benefits such as customer loyalty, customer satisfaction etc. Improved and effective marketing strategies improve customer service ultimately. In the views put forth by An Executive Dialogue Site, Epiphany.com, “An effective ECRM system lets a company communicate with its customers using a single and consistent voice, regardless of the communication channel.” This is because, with ECRM software, everyone in an organization has access to the same transaction history and information about the customer. Information captured by an ECRM system helps a company to identify the actual costs of winning and retaining individual customers. Having this data allows the firm to focus its time and resources on its most profitable customers. Simultaneously duplication of work, time and energy is also reduced. ECRM software and its implications is not limited to any employees or department but it’s an overall team work.

Research Methodology:

With due consideration to the research topic at exposure as well as the review of the nature of working of the existing banks in Bangalore city, the hypothesis put to test is, E-CRM is very crucial for banks, both private banks as well as nationalized and cooperative banks to survive in the competitive market and be a winner among its competitors. The major objectives behind present research is, to provide an overview of the importance of ECRM services for banks and to examine the impact of ECRM services as a business strategy for survival of banks with reference to selected banks.

The sample design of the study comprised of as under:

Table 1: Table Showing Distribution of Banks in Bangalore City.

Type of Bank	Total banks in Bangalore city	No. of banks selected for study	No. of customers selected from each bank for study	Total customers taken for study
Nationalized banks	20	05	50	250
Co-operative banks	10	03	50	150
Private banks	09	03	50	150
State Bank Of India	01	01	50	50
Total no. of banks	40	12	----	----
Total no. of customers	----	----	----	600

(Source: Field Data)

Based on the research objectives and the scope of the research, basically 12 banks were selected among the total (nationalized, co-operative, and private banks) 40 banks in Bangalore city (approximately). Further 50 customers each from these selected 12 banks were chosen for the study. The particular selection of the banks for the study was purely based on the established position of the banks, its reputation, customer base and services rendered by them. The population chosen for the survey was based on customers: -

- Who were likely to have access to internet and
- Who work within an environment that encourages the use of the Internet

Thus in simple terms, a Stratified Random Sampling Method was employed in the research with a sample size of 600 customers.

The study was confined to the selected banks of Bangalore city. The main focus of the study lies in determining the importance of application of ECRM services for the survival of banks in the market competition.

Analysis and Interpretation:

To test the said hypothesis, responses from bank officials on following two questions on five-point scale were taken and analyzed. The questions on perceptual importance of E-CRM for banks have been assessed using these two questions.

1. ECRM is very crucial for banks to survive in the competitive market.
2. ECRM can be used as a strategy for competitive advantage.

One sample ‘t’ test is used to analyze the inclination of opinions of bank officials.

Table 2: Descriptive statistics on cruciality of E-CRM

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
ECRM is very crucial for banks to survive in the competitive market	12	3.83	.577	.167
ECRM can be used as a strategy for competitive advantage	12	3.92	.669	.193

Above table shows that the sample 12 banks official opinion on cruciality of E-CRM in competitive market and its competitive advantage.

Since the mean score is 3.83 and 3.92 respectively with admissible standard deviation it can be said that the opinions of sample towards E-CRM is positive.

One sample 't' test has been executed to test the hypothesis with test value 3 since the zone 3 to 5

is positive zone. Though the figure 3 on scale is balancing the inclination 3 onwards is positive.

Table 3: One sample't' test for E-CRM cruciality for competitive market and advantage.

One-Sample Test						
	Test Value = 3					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
ECRM is very crucial for banks to survive in the competitive market	5.000	11	.000	.833	.47	1.20
ECRM can be used as a strategy for competitive advantage	4.750	11	.001	.917	.49	1.34

Above table shows the value of one sample't' is 5.00 and 4.750 respectively with 'p' value 0.000 and 0.001 shows that the test is significant hence, **null hypothesis is rejected** and alternative hypothesis i.e. E-CRM is very crucial for banks to survive in the competitive market and be a winner among its competitors is accepted.

Since the hypothesis is to be tested for nationalized, private and cooperative banks ANOVA is used test the statistical relationship between the opinions of samples from bankers of nationalized banks, private sector banks and cooperative banks as follows.

Table 4: ANOVA descriptive for E-CRM cruciality for competitive market and competitive advantage.

ANOVA						
		Sum of Squares	Df Square	Mean	F	Sig.
ECRM is very crucial for banks to survive in the competitive market	Between Groups	1.500	2	.750	3.115	.094
	Within Groups	2.167	9	.241		
	Total	3.667	11			
ECRM can be used as a strategy for competitive advantage	Between Groups	2.250	2	1.125	3.797	.064
	Within Groups	2.667	9	.296		
	Total	4.917	11			

Above table shows for first statement 'f' statistics is 3.115 and 'p' value is 0.094 and for second statement 'f' value is 3.797 and 'p' value is 0.064 the respective models and not significant denotes that there is no significant difference into the opinions of bankers in different sector on these

two statements asked to opine on E-CRM for competitive market and competitive advantage.

Further the ANOVA Tukey HSD test has been executed to look into actual relationship between the opinions of sample bankers as follows.

Table 5 : ANOVA Tukey HSD for cruciality for competitive market and competitive advantage

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) Bank	(J) Bank	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
ECRM is very crucial for banks to survive in the competitive market	1	2	-.500	.347	.362	-1.47	.47
		3	.500	.347	.362	-.47	1.47
	2	1	.500	.347	.362	-.47	1.47
		3	1.000	.401	.079	-.12	2.12
	3	1	-.500	.347	.362	-1.47	.47
		2	-1.000	.401	.079	-2.12	.12
ECRM can be used as a strategy for competitive advantage	1	2	-1.000	.385	.068	-2.07	.07
		3	.000	.385	1.000	-1.07	1.07
	2	1	1.000	.385	.068	-.07	2.07
		3	1.000	.444	.116	-.24	2.24
	3	1	.000	.385	1.000	-1.07	1.07
		2	-1.000	.444	.116	-2.24	.24

Above table shows that for both the statements opinion of samples is not significantly different since the 'p' value is ranging between 0.079 to 1.000

On the basis of entire discussion with the help of statistical evidences it is revealed to reject null hypothesis and accept alternative hypothesis i.e. E-CRM is very crucial for banks, both private banks as well as nationalized and cooperative banks to survive in the competitive market and be a winner among its competitors.

Findings:

1. Competition is the key factor of any business. In order to survive in this ever growing competition, it is very necessary to focus rightly and timely on the right success factors. It was a common observation with respect to all types of banks that the banks recognize their customers to be the most important agent to bring bright success for the organization. To

attain good amount of customer loyalty and retain the same, customer centric strategies are must today.

2. It was found that majority of banks accepted the fact that practicing E-CRM strategies in the banks helps them for long lasting survival in the competitive market. Particularly speaking, Private banks were found to be strongly convinced that by applying E-CRM strategies, banks gain better competitive advantage in the market over their competitors. At the same time, majority of banks agreed that E-CRM applications are gradually found to a survival tool in the competitive era.

Conclusion:

ECRM i.e Electronic Customer Relationship Management refers to the creation, development and enhancement of individualized customer relationships with the help of electronic means which helps the industry to create powerful new

tool for customer retention, customer assessment, customer attainment & profitability. It is the process of utilizing comprehensive information about customers & carefully managing all the customers' touch points with the aim of maximizing customer loyalty with the help of electronic media. ECRM reflects to be the latest model and is discovered to be more and more necessary for any kind of business industry for its successful survival. The ultimate success of banks depends upon its satisfied customers base and ECRM is one such strategic tool for its long term success and survival. Banks in India are still on the initial edge of learning and practicing E-CRM in an attempt to fulfil the requirements of the customer. The banks thus as far as possible must adopt E-CRM customer centric approach in their banking operations. The bank which provides value added services and satisfaction to customers is bound to become winners in the upcoming future.

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Effective Water Usage for Sugar Cane Crops Using Expert System

Shivaji D.Mundhe

Abstract:

The research is carried out at three levels. First is to study various sugarcane irrigation methods and problems in Kolhapur division. These analysed problems were identified to know expert system requirements and an expert system viz. 'Expert irrigator' was developed which is second level of research work. While in the third level of research work post implementation study is carried out to check whether developed system can solve the analysed problems. The present paper highlights the study problems face by the farmer using different irrigation methods. The researcher has developed expert system to minimise the water usage for the sugar cane irrigation.

Keywords: Expert System, Field Irrigation Requirement, Knowledge Base.

Introduction :

Indian agriculture depends on monsoon which is always fluctuating. Maharashtra accounts for nearly 9% of the total agricultural income of the country and it is India's second largest sugar-producing state. Sugarcane is one of the most water-intensive crops consumes around 70% of the total water available through the irrigation system for farming in the state. The water resources are scarce, therefore improved methods of water management is imperative. New irrigation methods such as sprinkle and drip irrigation are found to be very effective compared to conventional methods. Currently farmers deals with these methods manually which sometimes

consumes more water or sometimes the water reaches late due to which the crops get dried. To analyse exact water requirement some kind of expertise is required. This problem can be perfectly rectified with recent developments in information technology, specifically the new capabilities of software development efforts associated with Artificial Intelligence.

The present research work deals with the analysis of irrigation problems of sugarcane and designed and implement knowledge based expert system named as 'Expert Irrigator' for irrigation scheduling to solve analysed problems and efficient irrigation of sugarcane in study area. Researcher also made an attempt to study post implementation study to check the efficiency of developed expert system in solving analysed irrigation problems and to study its other applications.

Research Methodology:

The present study is an exploratory study to

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identify irrigation problems of sugarcane growers and develop an expert system in order to provide solution to these problems. The methodology adopted for the any study depends upon the type of the study, levels of the study, objectives and hypotheses set for the study as well as methods of analysis of data collected during the study. For the purpose of the present study, following research methodology has been adopted.

The present study is carried out through 3 different levels. Both primary and secondary data was used at each level to get exact results. To analyse sugarcane problems 386 farmers and 33 experts in agricultural field from Kolhapur, Sangli and Satara district have been selected for present study

using the stratified sampling techniques. Study has been put to test hypothesis i.e.

The Irrigation problems faced by farmers vary from one district to another district. And another hypothesis is that There is a significant difference between efficient use of water before and after implementation of expert system.

Data Analysis:

To test this hypothesis i.e. The Irrigation problems faced by farmers vary from one district to another district, , 386 farmers and 33 experts were selected from 3 districts of Kolhapur division. Opinion of both the respondents were recorded on a likert scale, where 1 = Strongly Disagree to 5 = Strongly Agree.

Test Statistics of Kruskal Wallis Test Performed using ‘District’ as Grouping Variable

Sr No.	Problems	Farmer			Expert		
		Chi-Square	df	Asymp. Sig.	Chi-Square	df	Asymp. Sig.
1	Cannot get exact water requirement for sugarcane	29.732	2	0.00	14.874	2	.001
2	Cannot get sufficient water for irrigation	27.426	2	0.00	3.981	2	.137
3	Cannot get sufficient water because of common irrigation schemes	30.119	2	0.00	10.935	2	.004
4	Cannot implement new irrigation methods because of common irrigation schemes	31.809	2	0.00	3.204	2	.201
5	No proper irrigation management	9.147	2	.010	2.625	2	.269
6	Cannot get electricity regularly for irrigation	25.506	2	0.00	.004	2	.998

Source: Data compiled by researcher using SPSS

From the above table it is observed that the statistical significance level of the Kruskal-Wallis test i.e., the p-value of all problem statements considered are below 0.05 and, therefore, there is a statistically significant difference in irrigation problems faced by farmers between the three different groups of the independent variable, i.e. Kolhapur, Sangli and Satara districts. Hence

hypothesis stands accepted and it can be concluded that irrigation problems faced by farmers vary from one district to another district.

Hypothesis 2

There is a significant difference between efficient use of water before and after implementation of expert system

For testing this hypothesis 9 experts and 32 farmers are selected who were interviewed before for sugarcane irrigation problem identification. They were provided with developed system and again asked for same problems. Before and after

measurement of the opinion of each respondent is taken on a Likert scale, where 1 = Strongly Disagree to 5 = Strongly Agree. Wilcoxon sign test was performed for statistical comparison of average of these two dependent samples

Analysis of Respondent’s Opinion about Efficient Water Use for Irrigation

Opinion	Ranks	Experts			Farmers		
		N	Mean Rank	Sum of Ranks	N	Mean Rank	Sum of Ranks
Pre: After use of EI also water for irrigation cannot be used efficiently	Negative Ranks	9a	5.00	45.00	31a	16.00	496.00
	Positive Ranks	0b	.00	.00	0b	.00	.00
	Ties	0c			1c		
	Total	9			32		
a. After use of EI also water for irrigation cannot be used efficiently < Water loss is maximum							
b. After use of EI also water for irrigation cannot be used efficiently > Water loss is maximum							
c. After use of EI also water for irrigation cannot be used efficiently = Water loss is maximum							

Source: Data compiled by researcher using SPSS

Test Statistics of Respondent’s Opinion about Efficient Water Use for Irrigation

Result	Expert	Farmer
Z (Based on positive ranks)	-2.724	-4.920
Asymp. Sig. (2-tailed)	.006	.000

(Source: Data compiled by researcher using SPSS)

From the above table it is clear that, the opinion of both respondents for the sugarcane irrigation problem of efficient water use for irrigation, the result of test statistics is 0.006 and 0 which is less than 0.05. Thus null hypothesis is rejected and alternative hypothesis is accepted which means that there is a significant difference between efficient use of water before and after implementation of expert system.

Conclusion:

In Kolhapur division very few farmers use irrigation automation tools. Sangli is leading district in implementation of irrigation automation tools. Though number of farmers currently using irrigation automation tools is less, most of the farmers are willing to use expert system for solving

irrigation problems in Kolhapur division. Other respondents may not be much aware about benefits of such system and doubtful about effective implementation of it. Farmers who are willing to use expert system for irrigation are more in Kolhapur district than in other two districts. Respondents agreed that irrigation problems faced due to conventional irrigational methods can be minimized using ES but there might be some constraints for using expert system in Kolhapur division which were used to give suggestions by researcher and care has been taken about them while developing the expert system

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Infrastructural Facilities - Key aspect of Agro Tourism

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Abstract :

Tourism is the one of the industries with the strongest effect on the economy because it helps in developing other sector. Tourism industry is the tool for the development of backward areas. Agro tourism is one of them having great scope. Many entrepreneurs are trying to develop different models in agro tourism industry through providing infrastructural facilities. Most of the time visitors are prefer particular unit because of the infrastructural facilities. Present research deals with on opinion of visitors regarding importance and satisfaction on infrastructural facilities available in sample agro tourism unit. Researcher has used paired t test for hypothesis testing and after testing it is found that test is significant hence null hypothesis is rejected and alternative hypothesis that Agro tourism is lacking in infrastructural development is accepted.

Keywords : Agro Tourism, Infrastructural Facility, Tourism

Introduction :

Tourism is the one of the industries with the strongest effect on the economy because it helps in developing other sector. Tourism industry is the tool for the development of backward areas (Talekar & Potdar, 2012). Agro tourism is one of the most important type of tourism in India and it having great potential in the process of rural development. Today the Indian Agriculture has to face tremendous competition because of the driven global trends. To add to this the agriculture crop growth is also weakened due to the uncertain climatic conditions (Sowmya et al 2014). There is no minimum support price guarantee also. These changes have altered the form and practices of farming operation. Farmers are looking beyond

traditional farming to generate income via various forms of direction farm marketing and farm based non-agriculture business.

Agri tourism is relatively new concept in India and leads to ample scope of development.

- a. An inexpensive gateway: The cost of food, accommodation, recreation and travel and tourism is low, widening the scope of tourism.
- b. Curiosity for the urban about farming industry and life style: Agro-tourism, which involves villages and agriculture, has the capacity to satisfy the curiosity of the urban segment by providing scope for re-discovering the rural life, which is rich in diversity.
- c. Strong family oriented recreational activities: through rural games, festivals, food, dress.
- d. Finding solace with nature friendly life style: Peace and tranquility are in-built in Agro-tourism.
- e. Nostalgia for their roots on the farm: For tourists it is like returning back to their roots.

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f. Educational value of Agro-Tourism spreading knowledge about Agriculture science where urban students are moving with the pace of technology.

Michal Sznajder and Lucyna Przezbórska (2004) mentioned that the present agro tourism needs an attention for the promotion of agro tourism and issue like, publicity, transport, accommodation, networking, capacity building of farmers, safety of tourists and public, need to be given cognizance (Kumbhar,2012; **Talekar & Potdar, 2012**). So it is necessary to study the current status of agro tourism center, infrastructural facilities available with centers, problems and prospects for units etc.

Present paper highlights on opinion of visitors regarding importance and satisfaction on infrastructural facilities available in sample agro tourism unit. For the better direction researcher have taken one hypothesis which is as follows-

H0- Agro tourism doesn't lacking in infrastructural development.

H1- Agro tourism is lacking in infrastructural development.

Research Methodology:

Present research paper is descriptive inferential in nature. Researcher has collected information

regarding opinion of visitors about importance of infrastructural facilities and satisfaction on existing infrastructural facilities. Researcher has taken total 201 samples from 18 agro tourism centers by using convenient sampling method. After the collection of data researcher has processed data by using MS excel and analyzed by using SPSS. For hypothesis testing researcher has used paired sample t test.

Data Analysis:

Following analysis shows opinion of visitors about importance and satisfaction about infrastructural facilities available at agro tourism centers.

Importance of Infrastructural Facilities:

Table 1: Infrastructural Facilities are most important for the agro tourism, it leads the development of the centre, hence we considered this as one of the important factor in our research. And we have collected the responses regarding the Infrastructural Facilities. We tried to know that the importance of Infrastructural Facilities. Following table shows opinion regarding Importance of Infrastructural Facilities. Researcher has used 5 point likert scale for data collection which is 1- Not at all important, 2- Not important 3- Neutral 4- Important 5-Very important.

Table 01: Opinion regarding Importance of Infrastructural Facilities (n=201)

Sr.	Facilities	Importance		
		Mean	SD	Rank
1.	Non Ac Room- Single bed	4.08	0.70	9
2.	Non Ac Room- Double bed	4.17	0.61	4
3.	Non Ac Room –Suit	3.59	1.33	33
4.	AC Rooms -Single bed	3.97	1.10	20
5.	AC Room- Double bed	3.98	1.03	18
6.	AC Room –Suit	3.12	1.41	39
7.	Rooms without Washroom/ Toilet/ Bathroom	3.31	1.32	37
8.	Common washroom / Toilet/ Bathroom	3.77	1.11	27
9.	Tents	3.49	1.35	35
10.	Lobby	3.31	1.23	36
11.	Dining Space	3.92	0.94	23
12.	Parking	4.06	0.91	10

Sr.	Facilities	Importance		
		Mean	SD	Rank
13.	Facilities for differently abled persons	3.98	0.77	18
14.	Ample Water	4.00	0.72	16
15.	Purified drinking water	4.22	0.70	3
16.	Electricity connection	4.23	0.71	1
17.	Electricity Backup	4.23	0.69	2
18.	Electricity through natural source (Solar etc.)	4.13	0.76	7
19.	Fire Fighting equipment/hydrants etc.	4.01	0.73	15
20.	Well equipped and maintained guest rooms with good standard furnishing/ equipment	3.71	0.89	28
21.	Rooms with Clean, airy, pest free without Dampness and with outside Window ventilation.	3.95	0.59	21
22.	Comfortable bed with good quality bedding preferably of rural style	3.70	1.03	29
23.	Attached private bathrooms with every room along with toiletries. WC Indian and western	3.70	1.09	29
24.	Hot water for bathing	3.67	1.05	32
25.	Well maintained smoke free, clean, and hygienic, odour free, and pest free kitchen.	4.06	0.55	10
26.	Dining area serving fresh traditional	4.17	0.57	5
27.	Indian breakfast, and meals with vegetables and grains grown on this farm	4.11	0.61	8
28.	Good quality cutlery and crockery.	4.00	0.61	16
29.	Wardrobe in the Guest room.	3.79	0.77	26
30.	Chairs, table and other necessary Furniture	4.02	0.46	12
31.	Name, address and telephone Number of doctors. Security guard facilities.	4.01	0.64	13
32.	Maintenance of register for guest check-in and check-out records including passport details in case of foreign tourists	3.79	0.57	25
33.	Air Connectivity Status	3.29	1.13	38
34.	Rail Connectivity Status	2.85	1.26	40
35.	Good condition of connecting roads	4.14	0.59	6
36.	Traffic Management	3.88	0.95	24
37.	Way side Amenities	3.51	1.13	34
38.	Good condition of street lighting	4.01	0.63	13
39.	Availability of petrol pumps	3.92	0.84	22
40.	Availability of commercial transportation	3.70	0.86	29

Source: (Compiled by researcher)

Table 1 shows opinion regarding Importance of Infrastructural Facilities. As per the visitors opinion 39 parameters having mean value above 3 means all parameters are important in agro tourism unit in which electricity connection, electricity backup, purified drinking water is important as its mean values are 4.23 and 4.22

respectively. Followed to this Non Ac Room- Double bed, Dining area serving fresh traditional, Good condition of connecting roads are important as means values are 4.17 and 4.14 respectively. Rail connectivity status having mean value 2.85 which shows neutral opinion of visitors.

Satisfaction about Infrastructural Facilities

Table 2: Satisfaction about Infrastructural Facilities

Following table shows opinion regarding satisfaction about Infrastructural Facilities. Researcher has used 5 point likert scale for data collection which is 1-Fully dissatisfied, 2-Dissatisfied 3-Neutral, 4-Satisfied, 5- Fully Satisfied

Table 02: Satisfaction about Infrastructural Facilities (n=201)

Sr.	Facilities	Satisfaction		
		Mean	SD	Rank
1.	Non Ac Room- Single bed	3.55	0.80	11
2.	Non Ac Room- Double bed	3.61	1.42	8
3.	Non Ac Room –Suit	2.40	2.01	29
4.	AC Rooms -Single bed	1.99	1.77	34
5.	AC Room- Double bed	1.96	2.00	35
6.	AC Room –Suit	0.92	1.39	39
7.	Rooms without Washroom/ Toilet/ Bathroom	1.90	1.78	36
8.	Common washroom / Toilet/ Bathroom	3.57	1.27	10
9.	Tents	2.23	1.87	31
10.	Lobby	1.58	1.70	37
11.	Dining Space	3.41	1.61	14
12.	Parking	3.96	1.01	5
13.	Facilities for differently abled persons	2.57	1.86	28
14.	Ample Water	3.67	1.35	7
15.	Purified drinking water	3.18	1.95	21
16.	Electricity connection	4.02	1.28	3
17.	Electricity Backup	2.81	1.98	25
18.	Electricity through natural source (Solar etc.)	2.11	2.08	32
19.	Fire Fighting equipment/hydrants etc.	2.10	1.91	33
20.	Well equipped and maintained guest rooms with good standard furnishing/ equipment	3.24	1.44	19

Sr.	Facilities	Satisfaction		
		Mean	SD	Rank
21.	Rooms with Clean, airy, pest free. without Dampness and with outside Window ventilation	3.41	1.34	14
22.	Comfortable bed with good quality bedding preferably of rural style	3.39	1.49	16
23.	Attached private bathrooms with every room along with toiletries. WC Indian and western	3.27	1.56	18
24.	Hot water for bathing	3.42	1.56	13
25.	Well maintained smoke free, clean, and hygienic, odour free, and pest free kitchen.	4.00	1.03	4
26.	Dining area serving fresh traditional	4.13	0.99	2
27.	Indian breakfast, and meals with vegetables and grains grown on this farm	4.16	0.73	1
28.	Good quality cutlery and crockery.	3.83	1.13	6
29.	Wardrobe in the Guest room.	3.14	1.56	22
30.	Chairs, table and other necessary Furniture	3.60	1.37	9
31.	Name, address and telephone Number of doctors. Security guard facilities.	2.83	1.94	24
32.	Maintenance of register for guest check-in and check-out records including passport details in case of foreign tourists	3.51	1.49	12
33.	Air Connectivity Status	1.20	1.90	38
34.	Rail Connectivity Status	0.91	1.67	40
35.	Good condition of connecting roads	2.74	1.98	27
36.	Traffic Management	2.38	2.12	30
37.	Way side Amenities	3.28	1.52	17
38.	Good condition of street lighting	3.20	1.62	20
39.	Availability of petrol pumps	2.78	1.76	26
40.	Availability of commercial transportation	3.00	1.60	23

Source: (Compiled by researcher)

Above table 2 shows opinion regarding satisfaction about Infrastructural Facilities. Means values of 40 parameters are ranging from 0.91 to 4.16 and s.d. 0.73 to 2.12 which shows there is inconsistency in opinion as well as on many parameters visitors are not satisfied.

Visitors are satisfied on Indian breakfast, and meals with vegetables and grains grown on this farm, Dining area serving fresh traditional, Electricity connection and well maintained smoke free, clean, and hygienic, odour free, and pest free kitchen. as its means values are 4.16, 4.13, 4.02

and 4.00 respectively. On 17 facilities visitors are not satisfied.

For growth management should focus on customer satisfaction. Whenever they feel

visitors are not satisfied there is need to improve facility.

Hypothesis Testing:

Paired sample 't' test between opinion of Visitors

Table 3: Paired Samples Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Visitors opinion regarding importance of infrastructure	3.83	40	.32	.05123
	Visitors opinion regarding Satisfaction of infrastructure	2.92	40	.87	.13803

Source : (Compiled by Researcher)

The mean value of Visitors opinion regarding importance of infrastructure is 3.83 which shows mentioned infrastructural facilities are important in agro tourism centers. As far as satisfaction is concern mean value is 2.92 which shows visitors are not that much satisfied on the infrastructural facilities those are available in agro tourism centers. The standard deviation value is below 0.87 which shows there is consistency in opinion.

Correlations:

Table 4: Correlations between Perceived importance and Satisfaction

Following table shows correlation between visitor's opinion regarding importance of infrastructure and visitor's opinion regarding Satisfaction of infrastructure

Table 4: Correlations between Perceived Importance and Satisfaction

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Visitors opinion regarding importance of infrastructure & Visitors opinion regarding Satisfaction of infrastructure	40	.667	.000

Source : (Compiled by Researcher)

The above table depicts that there is positive high degree correlation between Perceived Visitors opinion regarding importance of infrastructure and Visitors opinion regarding Satisfaction of infrastructure since 'r' value is 0.667.

Paired Samples Test between Visitors opinion regarding importance of infrastructure - Visitors opinion regarding Satisfaction of infrastructure.

Table 5: Paired Samples Test

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Visitors opinion regarding importance of infrastructure - Visitors opinion regarding Satisfaction of infrastructure	.91	.69	.11	.69	1.13	8.276	39	.000

Source: (Compiled by researcher)

The 't' score calculated to be 8.276 with 39 df. 'p' value is 0.000 at 95% level of significance, the test is significant hence **null hypothesis is rejected** and alternative hypothesis that Agro tourism is lacking in infrastructural development is accepted.

Conclusion:

Agro tourism industry shows tremendous scope of improvement. After the study it is observed that as per the visitors opinion many infrastructural facilities are important in agro tourism centers. As far as the satisfaction level is concern many facilities are need to improve. The hypothesis testing also shows that agro tourism is lacking in infrastructural development. Hence agro tourism centers should focus on infrastructural facilities for capture more market in future.

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Study on Progress of Urban Co-Operative Banks in Sangli District

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Abstract:

Sangli district located in Western Maharashtra has the agriculture and allied activities as the chief source of income. The extensive rail-road connectivity with major cities and towns in the district has given an impetus to the progressive economic life of the citizens, who are engaged in various occupations ranging from primary sector activities to ultra-modern IT based activities. Resultantly, the credit needs of the people have been growing day by day, which are met by public and private sector banks, cooperative banks and credit societies as well. There were 32 UCBs operating in Sangli district in the year 2005, however, due to various other reasons 10 banks were closed and 2 were merged in other banks. Passing through various ups and downs the UCBs in Sangli district have been making headway in banking business and playing the significant role in providing credit to the people in priority sector and weaker sections, small and medium income groups living in the urban, semi-urban and rural areas of the district. At this juncture, the researcher felt the need to study the performance of UCBs in Sangli district. The crucial role of UCBs in Sangli district has led the researcher to evaluate the progress of UCBs in the district.

Keywords: UCBs, Progress, Competent Management, Business per Employee.

Introduction :

Urban co-operative banks (UCBs) have played a pivotal role in the Indian banking system because of their objectives, democratic structure and philanthropic attitude towards the customers and the society, despite their small size. The UCBs have expanded speedily and increased their business over the last few decades and reached the common man of the society. As on 31st March, 2014, the number of UCBs in India stood at 1618 including Salary Earners' Banks and Mahila

Banks. UCBs as the customer-owned entities have been playing the significant role in meeting the credit needs of the people. UCBs are deeply rooted inside the local areas and communities. They are involved in local development and contribute to the sustainable development of their communities, as their members and management board belonged to the communities. Increasing banking access in urban areas, the UCBs reduces the banking exclusion and fosters the economic ability of millions of people. They play an influential role in the economic growth in the country. (Das And Sen, 1998). The financial attachment woven through emotional ties with middle and lower income groups, especially the UCBs have become very popular among small depositors and investors. Today they are important constituent of

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the Indian financial system, which covers a large segment of society with their prompt and personalized services to the weaker section of the society. Their procedural simplicity, close contact, informal atmosphere and local involvement were their inherent strengths which have attracted a good chunk of small depositors from urban and semi-urban areas. UCBs are set up primarily with the intention of meeting the credit requirements of small and retail businessmen and other weaker sections to protect them from the exploitation of money lenders. Tamil Nadu, Andhra Pradesh, Gujarat and Maharashtra are some of the states where most of the UCBs have been developed by leaps and bounds. (Deshmukh, 2002)

Review of Literature:

Ramesh and Patel (1999) have attempted to evaluate the growth performance of urban co-operative banks in India for the period from 1974-75 to 1993-94. The performance indicators such as number of banks, membership share capital, reserves, deposits, borrowings, working capital, advances, overdue and the like were selected for their study. They used the linear and exponential growth models to estimate the linear and compound growth rates. Their study showed that the urban co-operative banks had made noteworthy progress in all their performance indicators. However, the borrowings and overdue had unfavorably augmented during the study period. Considering some deficiencies in the overall working of the urban co-operative banks, they suggested certain suitable policy measures for better performance.

Rao (2001) emphasized the significance of funds management in co-operative banks in the context of globalization, liberalization and privatization of the financial system, consequent upon the implementation of Narasimham Committee recommendations. He pointed out that co-operative banks required a new approach for achieving higher productivity and profitability in the context of the opening of economy, application of prudential norms and deregulation of interest rates. The new approach should lay emphasis on

mobilization of resources at reasonable cost and deployment of funds at required yield so as to enlarge the interest spread and profitability.

Andhare (2002) has discussed the present challenges faced by UCBs. She highlighted dual control, lack of own reserve funds, tedious inspection, technology cost and replacement cost account of obsolescence, competition amongst banks, faulty and unreliable credit management, application of capital to risk weighted assets ratio (CRAR), compulsory investment in government securities, incompetent staff and lack of training facilities etc. as vital problems faced by UCBs. She suggested that the banks should take appropriate steps to tackle these problems as early as possible.

Mariappan (2007) has observed a high degree of heterogeneity in UCB sector in terms of deposit base, areas of operation and nature of business. Further, he identified that UCBs are lagging behind than other banks particularly due to lack of innovative product and inability of adopting modern technology like, electronic fund transfer (ETF), electronic clearing system (ECS), automated teller machine (ATM), shared payment network system (SPNS), credit cards and debit cards, telephone-banking, mobile-banking, internet-banking, electronic data interchange so on and so forth. In the era of merger and amalgamation, the small size of the UCBs has been adversely affecting their business operations. Increasing competition with new generation and big nationalized banks, UCBs have become unable to meet the expectations of customers. He also found that present loan recovery mechanism has failed to reduce the mounting NPAs. The UCBs are unable to introduce professional management system at the bank and branch level, and also their pay scales and structure failed to attract the professional managers towards UCBs. Failure of one or few UCBs and wide propaganda of this failure stories by media shakes the faith of common people in UCBs, he added.

Trivedi (2010) has evaluated the performance of co-operative banks in the context of LPG policy.

She observed that the LPG policy has widened the scope of business for huge banks than small co-operative banks, which has resulted in uneven competition for co-operative banks. UCBs have focused on priority sector lending for survival. However, this policy has proved too difficult to cope up with the present customer-oriented business and increasing competitive environment. Interest rates have created the problem of customer retention because due to high interest rates, the co-operative banks many as times lose their customers, who migrate towards commercial banks. On the other side, adopting large-scale networking, and modern technology, commercial banks have succeeded to reduce the cost of customers in terms of labor and time, whereas cooperative banks have lagged behind on this front. The researcher also identified certain important causes behind the low competitiveness of co-operative banks such as dual control and exhausted legal process, insufficient and less skilled professionals, overburden of management on the bank staff which periodically reduces staffs' morale and enthusiasm, low investment in IT and modern technology and political pressure in loans and investment portfolio. The researcher strongly advocated UCBs to prioritize their investments in IT with adequate attention to human resource development both in business process and customer services to overcome the above-mentioned problems.

Sant and Chaudhari (2012) have evaluated the performance of UCBs for the period 2004-2009. Financial ratios are employed to measure the profitability, liquidity and credit quality performance of Ten Urban Cooperative banks from Jalgaon and Greater Mumbai. The study found that overall bank performance increased considerably in the years of the analysis. A significant change in trend is noticed at the onset of the global financial crisis in 2007, reaching its peak during 2008-2009. This resulted in falling profitability, less liquidity and deteriorating credit quality in the Indian Banking sector.

Research Methodology:

The present study is an ex-post facto study and being so it was entirely based on secondary data. Study set to test the hypothesis, the progress of UCBs depends upon their competent management.

The relevant data was collected from annual reports published by concerned banks from financial year 2002-03 to 2013-14 to study progress of UCB's in Sangli district. The quantitative data presented in bank's reports and their office records formed the base for evaluating the performance of UCBs.

In addition, the supplementary books on co-operative development, financial management, banking, financial services, research methodology, various journals and periodicals were referred. The internet sources were also used. In the light of objectives of the study, it was imperative to examine the trends in various aspects of banks' performance. Therefore, the twelve years' period was considered adequate for the present research work. The study covered the twelve consecutive financial years from 2002-03 to 2013-2014. The availability of data for twelve preceding years was another important reason behind determination of the period for study. The study is confined to Sangli district and focused on studying the progress of the UCBs in changing market environment. As on 31st March, 2014, there were 20 UCBs operating in Sangli city and mofussil area of the district, which formed the universe for the study. All of them have a standing of more than 10 years in the market. All of those UCBs were selected. Table number 1 provides the names and their geographical profile of the selected UCBs.

1.1.1.1. Statistical tools applied

- A. Arithmetic mean
- B. Standard deviation (S.D.)
- C. Coefficient of Variance (C.V.)
- D. Karl Pearson's Correlation Coefficient (r)
- E. Chi-square test (χ^2)
- F. Regression Analysis
- G. Two-way ANNOVA Test (F-test)

Table 1: Geographical Profile UCBs in Sangli District

Sr.	Name of the UCB	Location in Sangli district
1.	Sangli Urban Co-operative Bank Ltd. Sangli	Sangli city
2.	Sangli District Primary Teachers' Co-operative Bank Ltd. Sangli	Sangli city
3.	Shri Laxmi Urban Co-operative Bank Ltd. Sangli	Sangli city
4.	Islampur Urban Co-operative Bank Ltd. Islampur	Islampur
5.	M.D. Pawar Peoples' Co-operative Bank Ltd. Islampur	Islampur
6.	The Vita Urban Co-operative Bank Ltd. Vita	Vita
7.	The Vita Merchants' Co-operative Bank Ltd. Vita	Vita
8.	The Manmandir Co-operative Bank Ltd. Vita	Vita
9.	Rajarambapu Co-operative Bank Ltd. Peth	Peth
10.	Jath Co-operative Bank Ltd. Jath	Jath
11.	Shri Laxmi Co-operative Bank Ltd. Mhaishal	Mhaishal
12.	Sarjeraodada Naik Co-operative Bank Ltd. Shirala	Shirala
13.	The Tasgaon Urban Co-operative Bank Ltd., Tasgaon	Tasgaon
14.	Babasaheb Deshmukh Co-operative Bank Ltd., Atpadi	Atpadi
15.	The Ashta Peoples' Co-operative Bank Ltd., Ashta	Ashta
16.	Hutatma Co-operative Bank Ltd., Walwa	Walwa
17.	Palus Co-operative Bank Ltd., Palus	Palus
18.	Shri. Satyavijay Co-operative Bank Ltd., Kundal	Kundal
19.	Appasaheb Birnale Co-operative Bank Ltd., Dudhgaon	Dudhgaon
20.	Mansing Co-operative Bank Ltd., Dudhondi	Dudhondi

Source: Report of Association of UCBs of Sangli district, 2014

Data Analysis and Interpretation:

To evaluate the progress of UCBs, the CAMEL model is used which is the acronym of capital

adequacy, asset quality, management efficiency, earnings quality and liquidity. Under each parameter the following ratios are computed.

C	Capital Adequacy	Capital Adequacy Ratio, Dept Equity Ratio and Advances to Assets Ratio are computed to understand the trend in maintenance of capital adequacy by UCBs.
A	Asset Quality	Net NPAs to Total Assets Ratio, Net NPAs to Total Advances Ratio, Total Investments to Total Assets Ratio and Percentage Change in Net NPAs are employed to assess the asset quality of UCBs.
M	Management Efficiency	Total Advances to Total Assets Ratio, Business per Employee , Percentage Growth in Business per Employee , Business per Branch, Profit per Employee, Total Income per Employee, Burden per

		Employee and Spread per Employee are computed to examine the efficiency of management of UCBs.
E	Earnings Quality	The ratios of Operating Profit to Average Working Funds Ratio, Net Interest Margin, Net Profit to Average Assets Ratio, Interest Income to Working Funds Ratio and Return on Net Worth are computed to understand the earning quality of the UCBs.
L	Liquidity	The liquidity position of UCBs is analyzed with the help of Liquid Assets to Total Assets Ratio, Liquid Assets to Total Deposits Ratio and Liquid Assets to Demand Deposits Ratio.

The very nature of the present work was indeed finding facts from figures. The data collected through secondary sources were systematically tabulated and classified bank-wise, year-wise and parameter-wise. The diagrams and graphs have been used to exhibit the data in simple comprehensible form. Diagrammatic presentation of data was done also to enhance the aesthetic value of the report.

Hypothesis Testing:

H0: The progress of UCBs does not depend upon their competent management.

H1: The progress of UCBs depends upon their competent management.

Looking at the hypothesis as envisaged in the methodology, it is imperative to test the null hypothesis that ‘the progress of UCBs does not depend upon the competency of its management’. The positivity of the hypothesis is explained hereunder.

For testing this hypothesis, the dependent and independent variables from the CAMEL ratios have been selected. Progress factors are taken as dependent variable, while management competency factors have been taken as independent variable.

Progress Factors: The progress factors are taken as under: The cost of funds, deposit per employee, assets per employee interest income to total income ratio, non-interest income to total income ratio, growth in members, net interest margin -
Dependent Variable

Management Competency Factors: The management efficiency factors are chosen as under: The credit to deposit ratio/advances to deposits ratio, business per employee, business per branch, profit per employee, total income per employee, per employee burden, spread per employee-Independent Variable.

It is presented in table 2.

UCB	Management Competency Factors								Factors of Progress of UCBs							
	CDR	BPE	BPB	PPE	TIPE	PEB	SPE	Mean MC	COF	DPE	APE	IITIR	NIITIR	Growth in Members	NIM	Mean PUCB
Sangli Urban Co-operative Bank Ltd. Sangli	64.93	116.59	2165.81	2.26	7.96	-2.02	4.21	337.11	7.09	70.86	46.42	90.19	9.37	2.39	0.03	32.34
Sangli District Primary Teachers' Co-operative Bank Ltd. Sangli	72.22	149.18	1289.92	0.67	11.65	-2.10	0.00	217.36	8.78	91.93	67.06	98.67	1.32	-1.01	0.03	38.11
Shri. Ashu Urban Co-operative Bank Ltd. Sangli	59.19	74.67	314.46	0.42	6.78	-8.78	0.00	63.82	9.08	46.69	27.87	96.48	3.34	0.02	0.04	26.22
Islampur Co-operative Bank Ltd. Islampur	63.17	125.59	910.14	0.41	9.26	-2.08	0.00	158.07	8.77	77.58	48.87	97.27	2.43	8.93	0.03	34.84
M.D. PAVAR Peoples' Co-operative Bank Ltd. Islampur	67.15	116.19	929.57	0.70	9.82	-1.91	0.00	160.22	10.16	69.32	43.98	94.07	5.34	5.01	0.03	32.56
The Vita Urban Co-operative Bank Ltd. Vita	64.50	171.74	2387.07	1.79	12.78	-2.82	0.00	376.44	8.84	104.86	66.88	96.61	3.28	2.86	0.02	40.48
The Vita Merchants' Co-operative Bank Ltd. Vita	61.02	98.71	1103.77	0.16	7.62	-1.27	8.59	182.66	8.63	59.58	36.29	87.08	11.84	13.06	0.02	30.93
The Manmandir Co-operative Bank Ltd. Vita	66.41	127.30	1043.98	0.47	9.14	-2.22	0.00	177.89	8.05	76.02	50.57	95.45	4.31	6.98	0.03	34.49
Rajarambapu Co-operative Bank Ltd. Peth	58.72	302.42	2837.56	1.62	21.51	-5.08	0.00	459.54	7.90	189.78	112.47	98.48	1.45	15.30	0.03	60.77
Jath Co-operative Bank Ltd. Jath	55.80	167.15	1724.47	1.38	13.09	-20.04	0.00	277.41	7.30	107.63	61.62	95.72	4.05	1.12	0.04	39.64
SHRI. ASHU Co-operative Bank Ltd. Mahasabal	66.66	172.29	1395.09	1.32	12.80	-2.67	0.00	235.07	8.42	103.51	68.36	98.49	1.41	0.78	0.04	40.14
Sarjeraodada Naik Co-operative Bank Ltd. Shirala	58.87	108.57	646.17	0.48	9.53	-2.89	0.00	117.25	7.28	82.34	48.34	97.71	1.78	6.96	0.04	34.92
The Jaagaon Urban Co-operative Bank Ltd. Jaagaon	67.32	162.15	974.45	0.91	12.02	1.02	-0.00	173.98	7.41	97.51	65.73	97.98	1.93	3.57	-0.02	39.16
Babasaheb Deshmukh Co-operative Bank Ltd. Amadi	66.10	147.33	1285.13	0.93	11.66	-2.29	0.00	215.55	8.97	91.11	61.01	96.74	3.10	6.46	0.03	38.20
The Asha Peoples' Co-operative Bank Ltd. Asha	61.60	161.73	828.26	0.72	11.66	-3.54	0.00	151.49	7.68	92.74	57.21	96.72	2.53	4.93	0.04	37.41
Hutama Co-operative Bank Ltd. Wakra	57.01	274.76	1670.33	1.00	46.03	-4.46	0.00	292.10	7.60	179.47	95.99	97.74	2.09	11.01	0.03	56.28
Palus Co-operative Bank Ltd. Palus	69.13	160.28	1563.51	0.55	12.60	-3.21	0.00	257.55	9.44	94.74	65.44	96.38	3.58	3.89	0.03	39.07
Shri. Sanyasi Co-operative Bank Ltd. Kundal	109.58	155.93	1285.67	0.45	13.35	-2.48	0.00	223.21	16.57	86.05	58.38	94.08	7	6.40	0.03	38.36
Appasaheb Birnale Co-operative Bank Ltd. Dudhgaon	61.08	158.23	1204.94	1.04	11.51	-2.77	0.00	204.86	7.62	98.62	59.61	98.81	1.11	1.08	0.03	38.13
Manong Co-operative Bank Ltd. Dudhandi	63.09	197.72	1262.61	0.66	13.96	-2.71	0.00	219.33	7.09	120.53	75.97	95.48	3.95	6.17	0.03	44.17

For regression analysis, the mean values of seven factors representing Management Competency (MC) are used as Independent Variable and mean values of seven other factors representing the Progress of UCBs (PUCB) are used and it is found that the progress of UCBs is dependent on the competencies of their management. However, out of seven factors, Business per Employee (BPE) is the major contributor which has led the UCBs in

Sangli district towards progress. The Business per Employee invariably indicates the optimum utilization of human resources for mobilizing deposits and their profitable disbursement.

To test the dependency of progress of UCB's on competency of management two ways regression analysis is used. Out of which, one is to test the dependency of progress of UCB's on competency of its management and the second is to test the

dependency of factors of progress of UCB's on competency of management. Hence, two independent regression analyses have been done and the results thereof are presented Tables 2 (A) to 2 (H)

Table: 2 (A): Variables entered to test progress of UCBs

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	MeanMC	.	Forward (Criterion: Probability-of-F-to-enter <= .050.)
a Dependent Variable : Mean PUCB			

Above table 2(A) shows that variables entered to calculate dependency using regression model is Mean PUCB is dependent variable and mean MC is an independent variable.

Table: 2 (B): Regression model summary to test progress of UCBs

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.708 ^a	.502	.474	5.70464
a. Predictors: (Constant), MeanMC				

Above table 2(B) shows that R square is 0.502 which indicates considerable dependency of mean MC on Mean PUCB.

Table: 2 (C): ANNOVA of progress of UCBs

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	590.404	1	590.404	18.142	.000 ^a
	Residual	585.773	18	32.543		
	Total	1176.177	19			
a. Predictors: (Constant), MeanMC						
b. Dependent Variable: MeanPUCB						

Above table 2 (C) shows f statistics is 18.142 with 'p' value is 0.000 shows that model is significant. This leads to reject null hypothesis and accept alternative hypothesis that the Mean MC is significant contributor to Mean PUCB.

Table: 2 (D): Regression model of progress of UCBs

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	25.045	3.474		7.208	.000
	MeanMC	.061	.014	.708	4.259	.000
a. Dependent Variable: MeanPUCB						

Above table 2 (D) shows unstandardized coefficients which helps to establish regression model.

Progress of UCB's = 25.045 + .061 (Mean MC)

Since the independent variable in above case i.e. Mean MC carries **SEVEN VARIABLES** to probe in depth to test relative importance of each variable as contributor to progress of UCB's considering these seven variables as independent variables regression analysis is done.

Table: 2 (E): Variables entered to test progress of UCBs

In following model entire seven variables are entered using forward method.

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	BPE	.	Forward (Criterion:Probability-of-F-to-enter <= .050)

a. Dependent Variable: MeanPUCB

Above table 2 (E) shows that only one variable i.e. BPE is retained and rest six variables are removed by software in regression analysis.

Table: 2 (F): Regression model summary to test progress of UCBs

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.991 ^a	.983	.982	1.05780

a. Predictors: (Constant), BPE

Above table 2 (F) shows that r square is calculated to be 0.983 which is much satisfactory conveys that the variable BPE contributes more to a dependent variable i.e. progress of PCB's.

Table: 2 (G): ANNOVA of progress of UCBs

ANOVA ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1156.036	1	1156.036	1033.16	.000 ^a
	Residual	20.141	18	1.119		
	Total	1176.177	19			

a. Predictors: (Constant), BPE
b. Dependent Variable: MeanPUCB

Above table 2 (G) shows that the F statistics is 1033.16 and 'p' value is 0.000 signifies the model leads to reject null hypothesis and accept alternative hypothesis i.e. BPE is significant contributor to PUCB. Rest six variables are not significant contributors to PUCB.

Table:2 (H): Regression model of progress of UCBs

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.014	.748		21.420	.000
	BPE	.145	.005	.991	32.143	.000

a. Dependent Variable: MeanPUCB

Above table 2 (H) show unstandardized coefficients helps to develop regression model.
Mean PUCB = 16.014 + .145 (BPE)

Above tables also shows that t statistics of BPE is 32.143 and 'p' value is 0.000 show that the variable is significant contributor to dependent variable i.e. Mean PUCB.

Conclusion:

It is incontestable that whatever progress has been achieved by the UCBs in Sangli district in respect of physical performance and improvement in their operational efficiency is because of competency of their management. Regression Analysis of 'Management Competency factors' and 'Factors of progress of UCBs' leads to accept the hypothesis that 'The progress of UCBs in Sangli district depends upon the competency of their management. The human resource of the UCBs is being optimally utilized for mobilizing deposits, which has created the base-line for banking business. This is reflected in the increasing trend in deposits per employee. It may be understood from the above analysis that UCBs in Sangli district are making headway in respect of deposits mobilization per employee. The Business per Employee indicates the optimum utilization of human resources for mobilizing deposits and their profitable disbursement

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Kano Analysis of Employability Skills for Functional Area of Management - A Case Study of MBA Program

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Abstract:

Employability is a major challenge for our education system. Management education students have low employability. Whether different functional areas of management viz. Marketing, Finance, Human resource, Production, IT and System management have different priorities for skills was studied. For this Kano model was employed which classified the skills as per the Kano categories (Attractive, must be, one dimensional). The study found that the functional area expert perceives skills required for entry level jobs in a particular functional area certainly varies. The Kano categories and skills classification in them varies with respect to functional areas.

Keywords: Kano model, Employability, functional areas of management, Skills classification, MBA student

Introduction :

Employability has become a major concern in the education sector. The World is now facing the problem of employability of students. The output produced by the education system is not that much competent and employable. India has huge potential to grow but it is not possible without the help of skilled youth.

One of the key reasons why many students invest in university education is to improve their employment prospects. However, whilst achievement of good academic qualifications is, it no longer appears sufficient to secure employment (Mantz Yorke, April 2006). Employability of students is a big concern for Indian education system. India is one of the fast growing economies in the world. According to Webometrics Ranking of World Universities, not a single Indian university is in the top 500 university rankings. Even in QS World top 200 Institutes, The Indian Institute of Science, Bengaluru ranked 147th and Indian Institute of Delhi, ranked 179th (Sinha, 2015).

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The employability of MBA students was found to be mere at 21 percentage (Merit-Trac, 2012). The management education has also seen tremendous pressure due to the unemployment and low employability. The trend of admission in India to

management courses is on the decline. Many Institutes remain with empty seats since last four to five successive years.

Review of Literature:

The students opt for post-graduation education for better employment prospects and career. The management courses like a diploma, post graduate diploma in business management and MBA have an impact on their career.

Members of the business community are the ultimate customers of business education and therefore, faculty of business programs must provide product satisfaction and delivery through customer satisfaction to their consumers (Cooper, 2000).

Students tend to have their own views regarding Employability skills and base their career development process on their own perceptions. The ideal situation will be created when centers of learning interact with the work environment and customize the skill pool of students to take charge of industry (Jyoti Dewan, July-Sept 2014). So today's need is to have consistent interaction of faculties and business education institutes with the industries. Due to this faculty perceptions about current industry needs for entry level jobs will be improved.

While comparing the employability of students pursuing MBA in different specializations across different sectors in analytical roles, client interaction related roles, functional roles, operational roles, it was observed that Marketing students have highest employability across all sectors followed by that in Finance except for specialized domain roles. Students specializing in Finance are more employable in Finance while those specializing in HR are more employable in HR. An anomalous result is that Finance students are slightly more employable than marketing students, for Marketing professions. This is because of self-selection among finance students who took marketing module: they were better in

cognitive skills. It can be observed that HR students have low scores in cognitive skills, while they are at par with the rest in English (Aspring Minds, 2012). This study indicates the need for further study of employability skills with respect to functional areas.

Roger Bennett in 2002 examined one thousand job advertisements in four occupational categories (marketing, general management, finance, human resource management) appearing in a number of graduate recruitment databases over a two-year period. Advertisements for marketing and general management jobs were significantly more likely to demand initiative, motivation, and communication skills. Marketing posts were additionally more prone to require IT and presentation skills, and management jobs to ask for leadership skills. Job advertisements for finance positions were significantly more likely to insist on numerical and IT skills. Communication was the only personal skill routinely mentioned in HRM advertisements. Positions with a more 'managerial' orientation tended to demand communication and numerical skills, adaptability (Bennett, 2002).

Research Problem:

Surveys done by the Aspiring Minds and Merit-Trac organizations revealed that employability of Management graduates is very low. A study done by (Dhanawade S.S., 2012) found that there exists a gap between expected employability skills of management students by industry and contribution of syllabus and pedagogy in employability skills development.

Colleges and Universities have many stakeholders including students, parents, employers, public officials and community leaders, as well as a general public. These stakeholders need to know if the faculty teaching at colleges is preparing today's students for tomorrow's jobs (Gumport, 2002). So faculty perceptions are very important for setting priority skills and imbibing them among the students for employment readiness.

So whether faculty perceptions for different functional areas of management viz. Marketing, Finance, Human resource, Production, IT and System management have different priorities for a set of skills, need to be studied. For this Kano model can be employed which will classify the skills as per the Kano categories (Attractive, must be, one-dimensional).

Research Methodology:

The objectives of the study are to find the perception of faculties regarding entry level job's employability skills required for functional areas of management and to classify these skills into Kano categories. The scope of the study is limited to only one institute catering MBA course of Shivaji University, Kolhapur.

To attain these objectives Kano model research methodology is adopted. Kano model is of customer satisfaction model which has described the four requirements which are: Must be requirements, one dimensional requirement, Attractive requirements and Indifferent requirements. (Center for Quality of Management Journal, 1993)

Must be requirements refers to those requirements if which are not fulfilled, the customer will be extremely dissatisfied. On the other hand, as the customer takes these requirements for granted, their fulfilment will not increase satisfaction. Fulfilling the must-be requirements will only lead to a state of not dissatisfied. These requirements are not explicitly expressed by the customer.

One Dimensional requirements regard to these requirements, customer satisfaction is proportional to the level of fulfilment – the higher the level of fulfilment, the higher the level of customer's

satisfaction and vice versa. These requirements are explicitly demanded by the customer.

Attractive requirements also termed as delighting skills, are those requirements which are having the greatest influence on customer satisfaction. Fulfilling these requirements leads to more than proportional satisfaction. If they are not met, there is no feeling of dissatisfaction. These requirements are neither explicitly expressed nor expected by the customer.

Indifferent requirements are not having much influence on either satisfaction or dissatisfaction among the customer.

The structured codified close ended schedule was used to collect required primary data. The schedule was meticulously executed on the functional area experts and all the faculty respondents. The Kano question consists of functional and dysfunctional questions for each product or service attribute. The functional question has a positive tone and the dysfunctional question has a negative tone towards the requirement. The functional question: How do you feel if 'X' feature is present in 'Y' service, and dysfunctional question: How do you feel if 'X' feature is not present in the service? The customer can answer each question with any one of five alternative answers like I like it that way, It must be that way, I am neutral, I can live with it, I dislike it.

The sample Kano question is as given in Table no. 1. The response to the functional and dysfunctional question is been mutually correlated and tabulated to determine the Kano requirement like A- Attractive, M- Must be, O- One Dimensional, R- Reverse, Q- Questionable, I- Indifferent

Table 1. The Sample Kano Question

Employability skill requirement		Dysfunctional question-What if at entry level of employment, student does not have negotiation skill, how do you feel ?				
		I like it that way	It must be that way	I am neutral	I can tolerate it	I dislike it
Functional question What if at entry level of employment, student have negotiation skill, how do you feel ?	I like it that way	Q	A	A	A	O
	It must be that way	R	I	I	I	M
	I am neutral	R	I	I	I	M
	I can tolerate it	R	I	I	I	M
	I dislike it	R	R	R	R	Q

(Source: Centre for Quality Management Journal, Volume 2 No.4, Fall 1993)

The convenience sampling method was employed to have 13 faculties. For the study, 59 variables were selected from the review. The demographic profile of respondents is as given in table no. 2

Table 2 Demographic profile of sample

Sr.	Parameter		Institute 1	Institute II	Institute III	Sub total	Total
1	Gender	Male	6	4	1	11	13
		Female	0	1	1	2	
2	Highest Qualification	MBA	2	3	1	6	13
		M. Phil.	0	1	1	2	
		Ph.D.	4	1	0	5	
3	Functional areas	MM	1	2	1	4	13
		FM	1	2	0	3	
		HRM	2	0	0	2	
		PM	1	1	0	2	
		IT & System	1	0	1	2	

(Source: Compiled by researcher)

Analysis has been undertaken using Kano model theme. The analysis has been undertaken into two parts one is experts of functional area wise of five samples and second is comprehensive is of 13 samples.

Data Analysis and Interpretation:

The collected data was screened, categorized,

coded and then fed in MS-Excel for evaluation and analysis.

The experts of the functional area of management are selected which are university approved faculty having more than 5 years of teaching experience in these functional areas. The demographic profile of experts is as given in table no. 2.

Table 3. The demographic profile of experts of functional areas

Sr.	Name	Designation	Functional area	Education	Age	Teaching Experience	Industry Experience
1	SSB	Associate Professor	Marketing Management	Ph.D.	44	13	7
2	SHL	Associate Professor	Financial Management	M.Phil., Ph.D.	30	7	1
3	SRN	Assistant Professor	Human Resource Management	M.Phil., Ph.D.	39	10	
4	RDK	Assistant Professor	IT and System Management	Ph.D.	49	11	13
5	SBC	Assistant Professor	Production Management	BE, MBA, Ph.D. pursuing	33	7	1

(Source: Compiled by researcher)

These functional area expert's perception about skills required for the entry level job are analyzed and tabulated into the Kano categories.

Table 4. Kano categories of employability skills based on perceptions

Sr.	Employability skills	Kano category by functional area expert					Overall MBA (13 faculties)
		MM SSB	FM SHL	HRM SRN	PM SBC	IT RDK	
1	2	3	4	5	6	7	8
1	Learning Skill	O	M	O	M	O	M & I
2	Reading Skill	I	A	M	M	O	O
3	Writing Skill	I	M	A	A	M	M
4	Listening Skill	O	M	O	M	M	M & O
5	Speaking Skill	O	A	O	O	M	M
6	Understanding	O	O	O	M	A	O
7	Numeracy Skill	I	O	O	A	A	A & O
8	Information Literacy Skill	O	M	O	A	I	O
9	Thinking Skill	O	M	O	A	O	M
10	Business Communication Skill	O	A	O	A	O	M
11	IT Skills	I	A	O	A	I	I
12	Analytical Skill	O	I	O	M	I	M & I
13	Decision Making Skills	I	M	O	M	O	M
14	Conceptual Skill	O	A	A	M	I	M & O
15	Technical Skill	I	M	O	M	A	M

1	2	3	4	5	6	7	8
16	Planning Skills	I	A	O	M	M	A & M
17	Organising Skills	M	A	O	A	M	A & O
18	Research Skill	I	A	O	A	I	A
19	Data Analysis Skill	I	M	O	A	M	O
20	Priority Setting Skill	M	A	O	M	M	M
21	Mathematical Skills	R	A	O	A	O	O
22	Reasoning Skill	I	A	O	M	O	M & O
23	Business Intelligence	I	A	A	I	I	A & I
24	Influencing Skill	O	A	O	I	I	O
25	Interpersonal Skills	O	A	O	A	O	A & O
26	Teamwork Skill	A	A	O	A	M	A
27	Leadership Skills	I	A	A	A	M	A
28	Delegation	I	A	O	A	M	A
29	Motivational Skill	I	A	O	A	I	A
30	Persuading Skill	O	A	O	A	A	A
31	Conflict Management Skill	I	A	O	I	I	I
32	Social Skill	O	A	O	I	A	A & O
33	Empathizing Skill	A	A	O	I	I	I
34	Coordination	I	A	O	A	A	M
35	Cooperation	O	M	O	A	A	O
36	Supervisory Skills	I	I	O	M	A	A & I
37	Networking Skill	O	A	A	M	I	A
38	Negotiation Skill	A	A	O	M	I	A & M
39	Adaptability	O	A	O	A	I	A
40	Time Management	O	M	O	M	O	M
41	Stress Tolerance	M	M	O	A	I	M
42	Career Planning	O	M	A	M	A	M
43	Multi-Tasking	I	A	A	M	A	A
44	Risk Taking	O	A	A	M	A	A
45	Goal Setting	O	A	A	A	O	A
46	Loyalty	M	M	O	M	M	M
47	Right Attitude	O	M	O	M	M	M
48	Honesty	O	M	O	M	M	M
49	Integrity	O	M	O	M	M	M & O
50	Enthusiastic	O	M	A	A	M	A

1	2	3	4	5	6	7	8
51	Persistence	O	M	A	M	I	A
52	Meticulous	O	I	O	M	A	I
53	Punctual	O	M	o	M	O	M
54	Confident	I	M	O	A	O	A & O
55	Common Sense	I	M	O	M	I	A & M
56	Sense Of Humour	I	A	A	A	A	A
57	Independent	I	A	O	A	A	I
58	Self Esteem	M	I	O	A	A	A
59	Commitment	O	I	O	M	A	O

(Source: Compiled by researcher)

Marketing Management functional area expert suggests that organizing, priority setting and stress tolerance skills are must be skills along with loyalty, self-esteem personal traits for entry level jobs in themarketing field. There are 20 skills and 8 personal traits which are categorized under one-dimensional. Teamwork, empathizing and negotiation skills are attractive.

Financial management functional area expert perceived that there are 14 skills and 9 personal traits which are must be among the students who want to take entry level jobs in this functional area. Reading and speaking skills are on-dimensional. There are 27 skills and sense of humour and independent attractive traits for this functional area to have entry level job.

Human resource management functional area expert perceived that reading skill is a must be skill for any entry level job aspirant. There are 35 skills and 11 personal traits which are categorized under one-dimensional. Also 9 skills and 3 personal traits viz., enthusiastic, persistent and sense of humour are attractive for entry level jobs.

For IT and System management functional area expert perceived that there 10 skills and 5 personal traits are must be for entry level jobs in it. There are 10 skills and 2 personal traits viz. punctuality, confidence are one-dimensional. Also there 11 skills and 5 personal traits which are categorized under attractive.

For the Production management functional area expert perceived that there 18 skills and 9 personal traits which are must for entry level aspirant. Speaking skill is one-dimensional. Also, there are 21 skills and 5 personal traits which are attractive for entry level job positions.

By combining all faculties' perception given for their functional area, the overall MBA perception for skills requirement can be drawn.

There are 11 skills and 4 personal traits which are solely categorized under the must be. There 7 skills and commitment personal trait has been categorized under one-dimensional. Also, 11 skills and 4 personal traits are categorized under attractive. Indifferent category includes 3 skills and 2 personal traits. There are 13 skills and 3 personal traits have multiple categories.

Findings:

The study found that each functional area hasa different number of skills and personal traits in different Kano categories. The functional area expert perception reveals that each functional area has their own must be skills set, attractive skills and one-dimensional skills. The priority for concentrating efforts on skills should be based on M>O>A>I rule. Foremost importance should be given toMust be skills, then One-dimensional, then Attractive skills.

Table 5 Kano categories of functional area

Functional area	Kano Categories							Total
	Must be		One-dimensional		Attractive		Other	
	Skills	Personal traits	Skills	Personal traits	Skills	Personal traits	Skills & traits	
MM (SSB)	3	2	20	8	3	0	23	59
FM (SHL)	14	9	2	0	27	2	05	59
HRM(SRN)	1	0	35	11	9	3	0	59
IT & System (RDK)	10	5	10	2	11	5	16	59
PM (SBC)	18	9	0	1	21	5	05	59
MBA (13 faculties)	11	4	7	1	11	4	21	59

(Source: compiled by researcher)

Conclusion:

The functional area expert reveals that skills required for entry level jobs in a particular functional area certainly varies. With respect to functional areas, Kano categories and skills classified in them varies. Sostudent should concentrate acquiring skills based on thepriority ofM>O>A>I rule and faculties should concentrate their efforts on students in such a way that they can acquire those skills.

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JUGAAD INNOVATION

A Frugal and Flexible approach to Innovation for the 21st Century

Book Review

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Published by: Random House India in 2012

The “JUGAAD” is the hind word, something that we Indians often used in our general conversations & commonly lived in it. Whether to find ingenious solution to problems or turn adversity into opportunity – Indians swear by it.

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Brief Introduction about book

In this book authors challenge the very way a traditional organization thinks and acts. Leading companies such as Facebook, Future Group, GE, Google, PepsiCo, Philips, Renault-Nissan, Siemens, Suzlon, Tata Group, and Yes Bank, among others, are already practicing jugaad to generate original ideas and pioneer growth.

This seminal book is segmented in nine chapters, discuss the underlying six principles of jugaad (Seek opportunity in adversity; do more with less; think and act flexibly; keep it simple; include the margin; and follow your heart) and show these principles in action by sharing previously untold stories of resourceful jugaad entrepreneurs and innovators in emerging markets.

Chapters:

1. Jugaad: A Breakthrough Growth Strategy

The brief introduction of this book- ‘Jugaad Innovation’ is given in this chapter.

The book sets off in Ramakrishna Nagar, a village in the desert of Gujarat in Western India, after travelling 250 miles from Ahmadabad with their team.

Professor Anil Gupta (IIMA), suggested to them meet with one of these rural entrepreneurs i.e. Mansukh Prajapati, an Indian villager who invented an affordable fridge made entirely of clay, except for a glass door and plastic tray at the bottom. Water from an upper chamber seeps through the side walls, cooling the lower food

chamber through evaporation. The fridge consumes zero electricity, produces no waste, is completely biodegradable and costs merely Rs. 2000.

2. Principle One: Seek opportunity in Adversity

In this chapter they explain how large corporations can unlearn practices that worked in a bygone era of relative predictability and find new way to succeed in future of adversity and constant change. For example 3M, Suzlon etc.

The jugaad innovator uses problems to create innovation. The harsh realities and obstacles they encounter become launch pads for new products and services. They don't succeed in spite of obstacles, they succeed because of them.

3. Principle Two: Do more with Less

This chapter explain the story of two jugaad entrepreneurs – Gustavo Grobocopatel of Los Grobo (Argentina) & Sunil Mittal of Bharti Airtel (India), who have developed frugal business models to cost effectively deliver agricultural and telecom services, respectively, to the masses. Also discuss how PipsiCo is reinventing its business model as an affordable and sustainable provider of nutritious consumer beverage – in a proactive response to the growing consumer demand for healthy food and the scarcity of normal resources like water.

Jugaad innovators have to be frugal. They lack money, raw materials, power, knowledge, and experience. They can't even count on a basic infrastructure. But what they lack in resources they make up for in resourcefulness. They reuse and recycle, combine existing technologies to make new solutions, leverage what exists and expand it. It's the only way they can survive, and remarkably, they use this to thrive.

4. Principle Three: Think and Act Flexibly

In this chapter, they delve into the minds of jugaad innovators to understand why & how they think and act flexibly. Also they examine what constrains the growing pressure to do so – and what they stand to gain by overcoming such constraints. In the end the chapter

describes of how large companies can adopt such flexibility in their own innovation initiatives.

Jugaad requires improvisation rather than strategic planning and forecasting. These entrepreneurs jump in with a prototype, and correct their course as they go along. When things go wrong, they adapt. (Refer to principle #1, adversity as opportunity.) They start with small budgets, take small risks, and can quickly correct and reboot after small failures.

In the case of Ratan Tata Chairman of Tata Group, who foresaw a big market for extremely affordable cars and went on to successful launch of Rs. 1 lakh Nano in 2009 – proving wrong those skeptics who had belittled his vision as a pipe dream. When the original plans failed to deliver sales, leaders at on their feed and improvise new manufacturing, distribution, and marketing strategies for Nano.

5. Principle Four: Keep it Simple

This chapter discovers how large western companies such as GM, Philips and Siemens, as well as a next-generation companies such as Google and Facebook, are using simplicity to ensure that their solutions are accessible and easy-to-use by a large no. of users.

As the west grows more and more technologically sophisticated, the jugaad innovators are looking for low-tech “good enough” solutions that are simple to make, use and repair. These inventions are extremely functional, without the bells and whistles of design innovation. But the simplicity doesn't come from removing features from high-end solutions. They design from the ground up, taking into consideration the most basic needs of the user.

6. Principle Five: Include the Margin

This chapter explores how large companies can learn from jugaad innovators like Dr. Rana Kapoor to profitably include the marginal group. Also explain why & how P&G is fundamentally shifting its business model to

serve the ‘un-served and underserved consumers’ – marginal segment that increasingly include middle-class consumers in the US whose purchasing power is being squeezed by the lack of growth in their earnings over the last decade.

Jugaad innovators can see, first-hand, what the unserved or underserved market needs – more often than not they’re part of it. They are driven by a sense of fairness, that everyone is entitled to basic services like education, information, health care, banking and energy.

7. Principle Six: Follow your Heart

This chapter discusses why & how corporate leaders do not rely on focus groups or formal market research to decide what products to make-nor do they worry how the investors will react to their new product strategies. They know their customers and their products intimately and ultimately, they trust and follow their hearts.

Conclusion:

1. Jugaad is an Indian word and usually it is taken in negative connotations. But, this book gives you a complete different meaning of Jugaad in a very positive context.
2. The core message of the book delivers the message and the value behind it.
3. The six guidelines for ‘Jugaad Innovation’ suggested by the book are crafted very nicely and are based on lot of good quality arguments and example cases in the book.
4. These principles are elaborated upon in form of 6 chapters very well; each chapter also has lessons on how the corporate sector can use the respective principles to innovate.

Some famous Quotes...

- ‘Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius – and a lot of courage – to move in the opposite direction.’
– **Albert Einstein**

- ‘It has done me good to be somewhat parched by heat and drenched by the rain of life.’

– **Henry Wadsworth Longfellow**

- ‘If I had one dollar to spend, I would invest in solving the biggest problem today – the economics of scarcity.’

– **Jeffery Immelt,**
Chairman & CEO, GE

- ‘One cannot alter a condition with the same mindset that created it in the first place.’

– **Alber Einstein**

- ‘I would not give a fig for the simplicity on this side of complexity, but I would give my life for the simplicity on the other side of complexity.’

– **Oliver Wendell Homes**

- ‘We need a system of inclusive capitalism that would have a twin mission: making profits and also improving lives for those who don’t fully benefit from the market forces.’

– **Bill Gates,**
Chairman, Microsoft Corporation

- ‘Your time is limited, so don’t waste it living someone else’s life. Have the courage to follow your heart and intuition. They somehow already know what you truly want to become. Everything else is secondary.’

– **Steve Jobs**

Some Book Reviews....

- ‘Jugaad Innovation is the most comprehensive book yet to appear on the subject’

– **The Economist.**

- ‘This book is a must read for the corporate sector and entrepreneurs alike’

– **Kishore Biyani,**
CEO, Future Group.

- ‘A provocative and entertaining read for 21st century business leaders’

– **Carlos Ghosn,**
CEO, Renault-Nissan.

- ‘This book is an excellent guide for innovative Indian entrepreneurs, and truly provides international validation for many Indian corporate leaders to embrace indigenous solution’

– **Dr. Rana Kapoor,**
Founder, MD & CEO, YES Bank

Authors view point:

‘Jugaad Innovation is not only for Corporate leaders, executives neither for entrepreneurs in the worldwide, but it is very useful for everyone living on the earth who are dealing with challenges in their day to day life & looking for simple solutions.’

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