

Preference over AI chatbots in banking services: Evaluating Customer KPIs

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ABSTRACT:

Technology still has a dominance role to play in both public and private sector , in establishing their competitiveness, likewise banking and finance sector is not an exception for the same , in order to improve / develop customer friendly services banks work with AI, which helps customers ease in access of data, 24x7 customer services, flexibility , reduces paperwork, from an employer perspective AI improves effectiveness, efficiency on completion of work, ease in administration of work, helps in reducing cost .This paper focuses on explaining the preference over application of AI chatbots in banking services and the customer relationships maintained through manual response in public and private sector banks w.r.t Chennai city.

Key words:AI chatbots , manual response,customer relationships.

INTRODUCTION:

In India AI has helped many companies , banks , FI to continue their operations like customer interface (through their applications and social media) , Customer insights & Personalization (interaction with the clients through audio and visual mode and facilitating the required services in an economic and efficient manner either virtually or personally) , Framing Business and strategic policies (using virtual conferences by KMP's with the managers, employees on framing policies and division of work to employees), Facilitating Internal Control and also complying with the statutory requirements of the organization (by preventing and detecting frauds and errors using data mining techniques) and Chat bots, virtual assistants helps in storage & transmission of database among employees for the purpose of analyzing the Financial Statements or the purpose of loan , management consultancy services, credit rating, credit score purposes, the value added advantages by operating through AI with the indent is that less human intervention , maintaining good

client relationship ,gain a competitive advantage over others, and improve the transparency level with the customers.

REVIEW OF LITERATURE:

Review of literature is summary and analytical view of the previous researches undertaken by various authors in the particular topic. The literature review for this study are as under:

How Artificial Intelligence Is Changing The Banking Sector –A Case Study of top four Commercial Indian Banks .According to Dr. Simran Jewandah AI is used to provide personalize financial services, smart wallets, underwriting, voice assisted banking, application to assist in lending decisions, customer support and digitization. It covers usage of AI and its implication on the top banks in India. AI has assisted in detection of frauds, reduction in cost and increase in revenue, making customer experience better.

According to Dr.C.Vijai.This paper evolves from conceptual understanding of AI, its types, history, contribution to the growth of banking sector through development and support of various regulatory bodies, enabling acceleration in the usage of latest technology like AI and block chain technology. Formulation of regulatory body, academic research unit by various players, presence of major IT companies in India have contributed to the growth story of India as a tech hub. It has changed business processes and customer-facing services significantly.

According to The Economic Times ; New Delhi [New Delhi] dated 06 Apr 2017, The financial sector in India has seen tremendous investments into chatbots and artificial intelligence (AI) to augment customer service. The routine queries will be moved to the self-service mode. Chatbots will not replace customer executives but will complement them, providing customers with a richer experience. The bankers believe there would not be job losses

Objective of the Study

To Determine the Service gaps in AI Chatbot system and manual responses of Customers in relationship with banking services.

To Evaluate the Customer preferences on Manual responses versus AI Chatbots in banking Services

Hypothesis

H0: Usage of banking services remains same towards Public Sector and Private sectors banks in context of AI Chatbots vs Manual Responses

H1: Usage of banking services not remains same towards Public Sector and Private sectors banks in context of AI Chatbots Vs Manual Responses.

Method of Study

Sources of Data

Primary data – A Structured Questionnaire is designed to collect data from customers of bank. (Survey)

Sampling method

The Sampling method used is stratified random sampling. The Total sample size is 118. This sample consists of 120 respondents from Chennai region (North, South, East and West).

Data Analysis

Independent Sample t-test is used to test the hypothesis.

Statistical package -SPSS version 2.0

KPIs	AI Chat bots Response	Gap Existence Preference	Manual Interaction Response
Loyalty Program	Moderate	Qualitative needs	Low response
Customer Basic level Queries	Faster	Exists	Low response
Service Rendering(Changing password, Checking bank balance)	Faster	Exits	Low response
Accessibility	Faster	Exits	Moderate
Security of payments	Faster	Exits	Moderate
Behaviour towards Customer	Faster	Qualitative needs	Low response
Time taken	Faster	Exits	Poor
Bot System Glitch	Low response	Exits	Moderate

Table is created with Statistical results in SPSS on Comparing Factor test on each variable independently.

Analysis of Data and Results

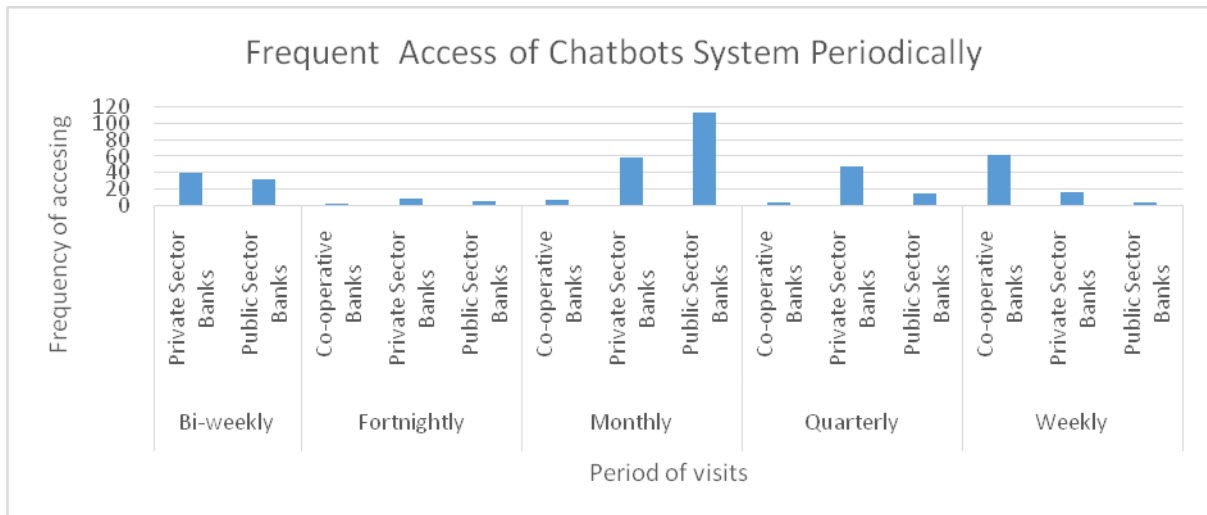
T-Test – AI Chatbot Response Vs Manual Response

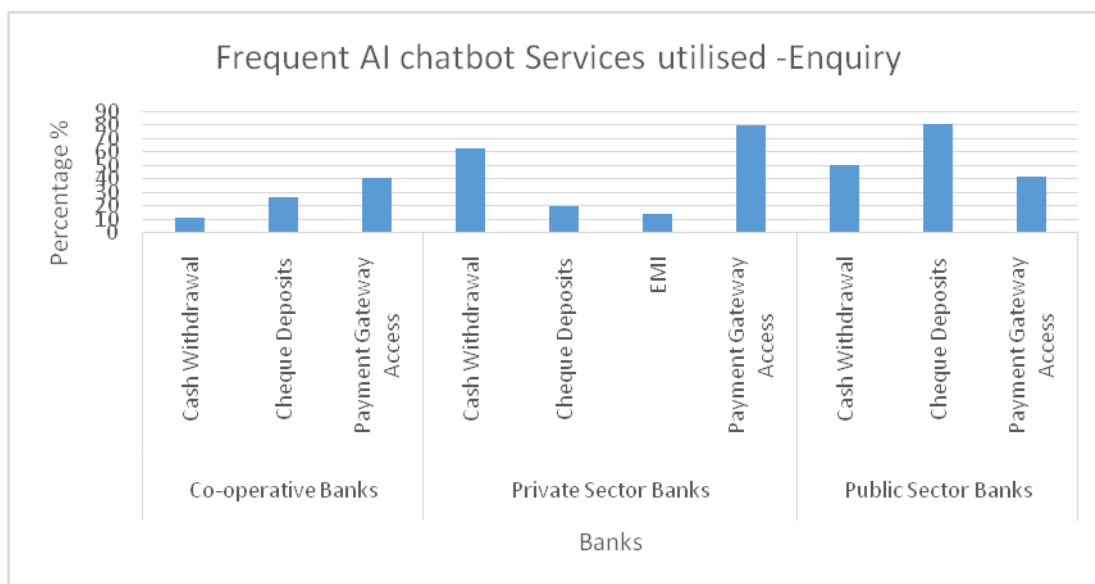
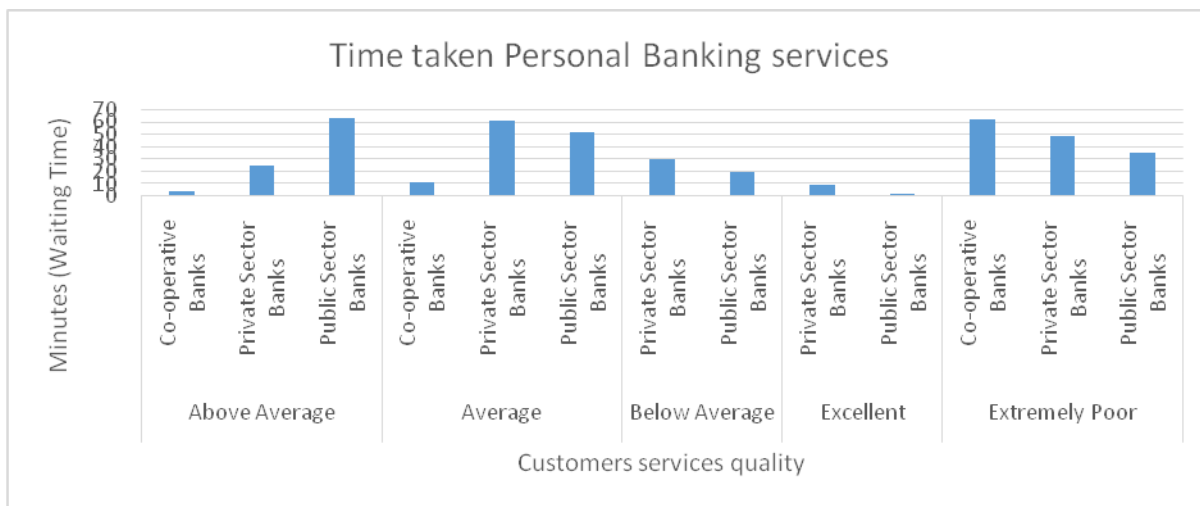
Group Statistics

	Banks	N	Mean	Std. Deviation	Std. Error Mean
AI Chatbots	Private Sector Banks	58	2.57	1.645	.216
	Public Sector Banks	56	2.14	1.151	.154
Manual Response	Private Sector Banks	58	2.8276	1.27235	.16707
	Public Sector Banks	56	4.0000	1.42701	.19069

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
AI Chatbots	Equal variances assumed	13.682	.000	1.597	112	.113	.426	.267	-.102	.955
	Equal variances not assumed			1.607	102.223	.111	.426	.265	-.100	.952
Manual Response	Equal variances assumed	2.259	.136	-4.634	112	.000	-1.17241	.25301	-1.67373	-.67110
	Equal variances not assumed			-4.624	109.555	.000	-1.17241	.25353	-1.67486	-.66996





Independent Sample t-test (comparing of means with two different population)

Dependent variable	T-statistic	p-value	Significance at 5%	Test Result
AI Chatbot Response	1.597	0.00	Significant	H0 Rejected
Manual Response	4.634	.136	Not Significant	Cannot Reject H0
Time taken	6.89	0.008	Significant	H0 Rejected

FINDINGS:

From the above table it is found out that .:

- Customers basic level queries on banking is solved quick with the help of AI Chatbots when compared with the bank's Loyalty Program.
- AI chat bots helps in rendering basic essential services faster when compared with the Loyalty Program
- These AI Chat bots is easily accessible, flexible to the customers on providing the service required by them
- AI Chat bots ensures faster payments in a well secured manner ensuring high transparency and quality services with the banks.
- AI Chat bots 's behaviour is customer friendly and quick responding to the users when compared with the bank's Loyalty Program and also preferred by all class of customers in area of customer support services.

LIMITATION:

There are a few limitations which do not help in proper functioning of AI Chat bots, they are as follows:

1. Bot System Glitches , appearing between transaction, which may not be preferred by customers and this occurs due to the server problems or network issues either in the bank as well as in the customers side.
2. AI Chat bots are very rigid on certain terms relating to overdraft facilities , interest payments , collection of loan etc.. , due to which it makes business customers attract towards the loyalty programme of the bank.
3. AI Chat bots do not consider the qualitative data like trust , honesty, reputation of the applicant in the society which creates disinterest in the minds of customers towards the bank.
4. Due to the presence of these Bot System Glitches there are high occurrence chances of Transaction errors like error of omission , error of commission , any other errors which may make the customer loose trust on banks and as well on the system.

CONCLUSIONS:

With the infusion AI in banking sector, it has created a lot of opportunities for the banks as well as the staffs, customers to equip their skills as per modern day requirements and also modern day banking practices have started to replace traditional banking practices using its simplicity, technical flexibility, behavioural pattern, but yet in some cases the traditional approach like banks loyalty programme is preferred by the customers , also with the presence of the few unavoidable limitations in AI and also it is preferred that National Language Processing must be developed in AI so that human interaction in AI becomes easier , also in order to

make full use of AI in banking services lot of research activities is required so that each and every customer gets benefited by AI and AI works to its fullest capacity in the economy.

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