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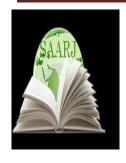


# SAARJ Journal on Banking & Insurance Research (SJBIR)



(Double Blind Refereed & Reviewed International Journal)

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# INFLUENCE OF RELATIONSHIP MARKETING ON CONSUMER BEHAVIOR: SPECIAL STUDY OF THE LIFE INSURANCE INDUSTRY

Dr. Namrata Babel\*

Teaching Assistant, Indian Institute of Management, Udaipur, INDIA Email id: namrata\_babel@rediffmail.com

#### **ABSTRACT**

In the wake of liberalisation and globalisation of the Indian economy the financial services sector has come to assume a significant importance, and life insurance, which is a very important constituent of the financial service sector, assumes a special performance. All financial business deals with the management of risk but life insurance companies with their basic risk management, their asset size and relative stability of cash flow are likely to pay a key role in the future development of the financial services industry. One of the other very important in today's business environment is that of relationship marketing. In today's challenging business environment it's very important for the companies to change their business patterns and revamp their organisational structures to meet the demands and expectations of customer. Relationship marketing is of a great important for insurance sector as, it is a fact that insurance is sold purely on relationship basis. This research study tries to find out the extent to which relationship marketing affects the life insurance industry in India. This study is of a great relevance in today's world as relationship marketing is a concept that perfectly suit the life insurance sector and is of a great importance for the sector.

**KEYWORDS:** Relationship Marketing, Life Insurance

#### 1. INTRODUCTION

Marketing consists of all activities by which a company adapts itself to its environment creatively and profitably. 1.1

According to American Marketing Association (AMA) marketing can be defined as "The performance of business activities that direct the flow of goods and services from producer to consumer and users." 1.2

Marketing can also be called a social and managerial process by which individuals and group obtain what they need and want through creating, offering and exchanging products of value with others. Marketing is considered a social process because the whole society including suppliers, employees, distributors and final consumers all are involved in it. Marketing is customer focused it means that customer is given major preference in marketing. Marketing aims at producing those goods and services that are needed by the customers and which should satisfy them completely.

In the Indian scenario the most appropriate definition of marketing can be explained in the following words Marketing is the process of ascertaining consumer needs and converting them into products and services and then moving the products and services to the final consumer or user to satisfy such need or wants of specific customer segment with emphasis on profitability, ensuring the optimum use of resources available to the organisation.

# 1.1 Description of Relationship Marketing

According to Philip Kotler, "Relationship Marketing is the process of building long term relation with customers, distributors, dealers, suppliers. Overtime Relationship Marketing promises and delivers high quality, efficient service and fair price to the other party." <sup>1.3</sup>

It is accomplished by strengthening economic, technical and social ties between members of two organizations or between the marketer and individual customers. According to Peter F. Drucker "The basic purpose of an organization is to relate with and retain customers." <sup>1.4</sup>

Relationship Marketing can be termed as an ongoing or continuous process of engaging in cooperative and collaborative activities and programmes with immediate and end user customers to create or enhance mutual economic value at reduced costs.

Relationship Marketing is the philosophy of doing business within a strategic orientation that focuses on keeping and improving relations with current customers rather than acquiring new customers. It uses a wide range of marketing, sales communication, and customer care techniques and processes to identify named individual customers, create a relationship between the company and these customers. Smart relationship marketers try to build up long-term win-win relationship with valued customers, distributors and suppliers.

The ultimate outcome or result of relationship marketing is the building up of a unique company asset called marketing network. The marketing network consists of a company, its suppliers, distributors and customers within which it has developed a solid dependable business relationship. The focus or objective is to build a good relation that will lead to profitable transactions.

#### 1.2 Description Of Consumer Behaviour

Consumer Behaviour can be explained as "The study of individuals, groups or organizations and processes they use to select, secure, use and dispose off products, services or ideas to satisfy the needs and the impacts that these have of the consumer and society."

Consumer behaviour is determined to great extent by psychological factors and its very important for a marketing manager to understand them. The whole behaviour and the behaviour pattern of person during or while making a purchase is called consumer behaviour. It's a process whereby individuals decide whether, what, when, where, how and from whom to purchase goods and services. Consumer psychology plays a vital role in shaping consumer behaviour.

#### 1.3 Life Insurance Industry In India

Insurance can be defined as "A social device providing financial compensation for the effects of misfortune, the payments being made from the accumulated contributions of all parties participating in the scheme." <sup>1.5</sup>

From this definition it is clear that insurance basically is a tool to provide financial compensation to the insured in case of a misfortune form the pool funds, which has been contributed by all people participating in that particular scheme.

Life Insurance came in India from United Kingdom with the establishment of the British firm Oriental Life Insurance Company in 1818 followed by Bombay Life Insurance Company. in 1923.

Indian life insurance market has been a mixed bag of rapid growth in some areas as well as poor performance in the other areas. Libralising the industry and opening it up for the private players have attempted the rectification of this imbalance.

The life insurance business in the pre nationalization period in India was affected by problems like misuse of funds and corruption. Due to this reason life insurance was nationalized in 1956.

The first Indian company Bombay Mutual Life Insurance Society Ltd. was formed in December 1870. Till 1956 Life insurance in India was in private hands but after 19<sup>th</sup> January 1956 all life insurance business in India was nationalized. Life Insurance ordinance and other ordinance was passed and LIC came into existence form 1<sup>st</sup> September 1956. At the time of nationalization 256 insurance companies were present. Life insurance act and Provident Fund Act were passed in 1912 which provided first regulatory mechanism in life insurance industry. Indian Insurance Companies Act 1928 authorized the government. to obtain statistical information form companies operating in both life and non life insurance sectors. The Insurance Act of 1938 made the control more strict. A bill was also introduced in legislative assembly in 1944 to nationalize the insurance industry. Eventually the Parliament of India passed the Life Insurance Act on 19<sup>th</sup> June 1956 and LIC of India was established.

Apart form the public sector LIC there are a number of Private Life Insurance companies operating these days so there are a lot of options in front of people.

#### 2. OBJECTIVE AND SCOPE OF STUDY

Human personalities are enigmatic and a study of consumer buying behaviour motivations underlying under it is of a great importance for the marketers. A proper study of consumer and their motivations to engage in relationships with marketers is of a great importance for both practitioners and marketing scholars.

This study is about the effect of relationship marketing on consumer buying behaviour in the life insurance industry. To develop an effective theory of Relationship Marketing it is very important to understand what motivates consumers to reduce their available market choices and engage in relational market behaviour by patronizing the same marketer in subsequent choice situations.

The study also focuses on consumer behaviour which is the heart of any marketing activity. This is mainly because consumers enjoy a central position I any marketing activity and ultimate satisfaction of consumers is the main objective of any business. To ensure success of any business it is important to understand the consumer behaviour.

Application of relationship marketing and consumer behaviour is of a great importance and relevance as insurance is a growing industry and it has a large number of benefits.

With liberalization a number of private players have come up and are offering a plethora of products and services. The consumer today is very much knowledge savvy and can challenge any industry. In this world of cut throat competition its very important for an insurance company to survive competition and achieve success and profits by responding to customer needs. The principles of relationship marketing revolve around marketing. All the relevant information is gathered form all the distribution channels and all the available data is properly analyzed to understand consumer behaviour. The main focus of the firm is to enhance customer value.

Before liberalization insurance was seen as a product to be taken to avail tax benefits and the range of products was limited. The prominent player LIC at that time was not having a proper information dissemination system. The studies show that LIC covers only 25% of the insurable population (data: Indian insurance industry embracing CRM philosophy. V.V. Gopal in insurance chronicle Sep' 05 ICFAL University press).

The insurance bill was passed in the year 2000 and it was then that many private players entered the insurance market. The major attention was vast untapped market. The impact of the entry of private players was felt in the areas of product promotion, knowledge dissemination and service standards. Now there is a continuous and repeated exposure to various channels of information.

Today there are many types of options available in insurance and people see it as best investment option, which provides tax benefit as well.

The future truly belongs to relationship marketing. All marketing components today have a service option attached to it and relationship fits the salient characteristics of services. Both the company and the customer benefits form relationship marketing.

### This research has the following objectives.

- 1. To understand the concept of Relationship Marketing in the context of Life Insurance Industry in India.
- 2. To understand consumer buying behaviour and its components and how it is affected by Relationship Marketing.

To find out the influence of Relationship Marketing on consumer behaviour with respect to Life Insurance Industry.

## 3. HYPOTHESIS OF STUDY

On the basis of above objectives the following hypothesis were formulated.

- A. Relationship marketing is needed in both public as well as private sector.
- **1.** There is no significant difference in the opinion of Public Sector and Private Sector managers regarding statement "Relationship based marketing is important in insurance industry".

- 2. There is no significant difference in the opinion of Public sector and Private sector managers regarding statement "Relationship building is effective in modifying behavioural dimension".
- 3. There is no significant difference in the convenience felt by the public sector and private sector managers making investing a known customer.
- **4.** There is no significant association between number of visits done by agents and type of agent (public sector or private sector agent) to make him/her invest.
- **B.** Consumer behaviour can be molded with relationship marketing.
- 1. There is no significant difference in the opinion of agents of public sector and private sector insurance companies regarding statement "relationship based marketing is important in insurance industry".
- 2. There is no significant association between time taken in making decision by the target customer regarding investing and type of agent (known/ unknown agent) in opinion of agent.
- **C.** Relationship marketing increases customer satisfaction.
- 1. There is no significant difference in the number of policies taken from a known and an unknown agent.
- 2. There is no significant difference in the quantum of business got form relationship and business NOT from relationship.
- 3. There is no significant difference in the quantum of insurance business got form relationship and NOT from relationship.
- **D.** Relationship marketing involves a lot of financial expenditure.
- 1. There is no significant association between time taken in making decision by the customer regarding investing and type of agent (Known/ Unknown agent).
- 2. There is no significant association between number of visits done by agents known to customer and agents unknown to customer to make him/her invest.
- 3. There is no significant association between numbers of visits done by agents known to customers to make him/her invest.
- **4.** There is no significant association between numbers of visits done by agents known to customer to make him/her invest.

#### 4. LOCALE OF STUDY

The present study has been conducted in Udaipur district of Rajasthan State of India. And to ensure a representative sample few private life insurance companies together with LIC were selected.

#### 5. SELECTION OF SAMPLE

The respondents were randomly drawn from the selected companies. The respondents belonged to three categories that were -

- (i) Consumers from the insurance companies (105)
- Sales managers of the insurance companies (75) (ii)

(iii) Agents from the insurance companies (93)

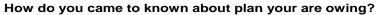
#### 6. FINDINGS OF THE STUDY

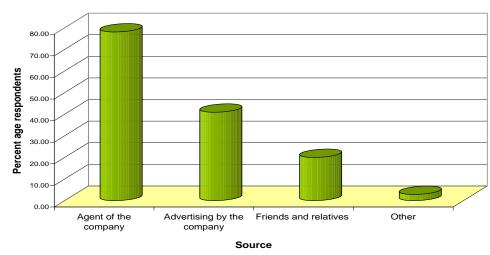
TABLE 1: CUSTOMER KNOWLEDGE ABOUT THE PLAN

Response	N	Percentage
Agent of the company	82	78.10
Advertising by the company	43	40.95
Friends and relatives	21	20.00
Other	3	2.86

Source: Based on the information collected through questionnaire

Graph 1: Customer knowledge about the plan





This truly reveals the fact that insurance sells on pure relationship building by agents or managers. A dedicated team of agents or managers works for selling insurance policies. The agents approach the clients and explain them the details of the policies and convince them to purchase the insurance policy. This way the customers get information and knowledge about the policies and companies. This shows the importance of network of agents/managers for the success of life insurance companies.

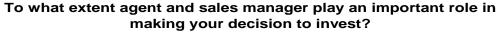
TABLE: 2 ROLE OF AGENT OR MANAGER IN CUSTOMERS DECISION TO **PURCHASE INSURANCE** 

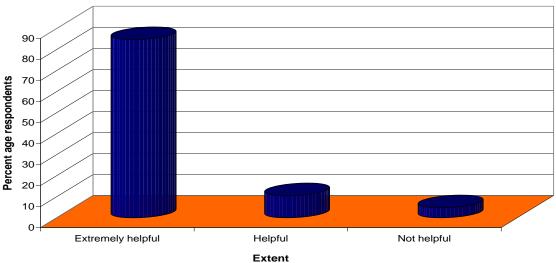
Role	N	Percentage
Extremely helpful	89	84.76
Helpful	11	10.48
Not helpful	5	4.76
Total	105	100.00

Source: Based on the information collected through questionnaire

This also proves the fact that relationship marketing is very important for the insurance sector and shows the importance of relationship building by agent/manager can be a positive factor to sell insurance. The above tabulated information can be explained by the following graph:

Graph 2: Role of agent or manager in customers decision to purchase insurance





Source: Based on the information collected through questionnaire

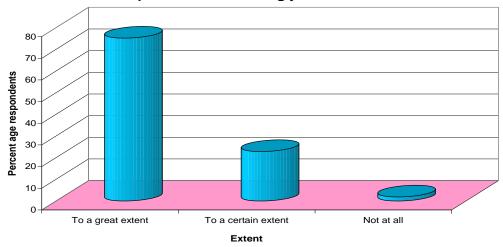
TABLE 3 ROLE OF AGENT OR MANAGER IN CONSUMER DECISION-MAKING

Role	N	Percentage
To a great extent	79	75.24
To a certain extent	24	22.86
Not at all	2	1.90
Total	105	100.00

Source: Based on the information collected through questionnaire

Graph 3: Role of agent or manager in consumer decision-making

To what extent relationship with agent and sales manager play an important role in making your decision to invest?



Source: Based on the information collected through questionnaire

This clearly shows that the concept of Relationship Marketing is very important from point of view of customers. The relationship of agent/manager with customer influences the purchase behaviour to a great extent and customers believe that they are motivated by agent or manager to a great extent.

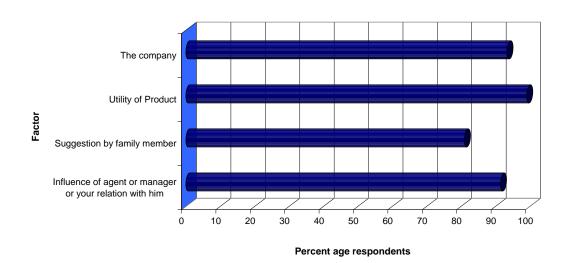
TABLE 4: FACTORS INFLUENCING CUSTOMER PURCHASE BEHAVIOUR

Role	N	Percentage
The company	98	93.33
Utility of Product	104	99.05
Suggestion by family member	85	80.95
Influence of agent or manager or your	96	91.43
relation with him		

Source: Based on the information collected through questionnaire

Graph 4: Factors influencing customer purchase behaviour





Source: Based on the information collected through questionnaire

Again the importance of agents/managers and relationship building by them is shown as 91% of people are of opinion that agent/manger influence is equally important together with other factors.

TABLE 5: CUSTOMER BELIEF ON AGENT/MANAGER

Response	N	Percentage
Yes	99	94.29
No	6	5.71
Total	105	100.00

Source: Based on the information collected through questionnaire

TABLE 6: CUSTOMER OPINION ABOUT RELATIONSHIP BUILDING

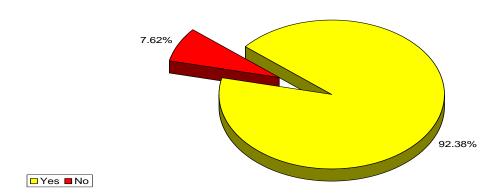
Response	N	Percentage
Yes	97	92.38
No	8	7.62
Total	105	100.00

Source: Based on the information collected through questionnaire

The above table shows the perception of people towards the relationship building by the agent or manager. The above question was asked to find out do people consider relationship building to be a positive factor for selling insurance. It was observes that 97 out of 105 i.e. 92.38% of people feel that relationship building by agent or manager is a positive factor for selling insurance and 8 people i.e. 7.62% of respondents feet that relationship building is not at all a positive factor for selling insurance. This show that people consider relationship building a positive factor for selling insurance, which clear indicates the importance of relationship marketing. The following graph explains the same pictorially:

Graph 5: Customer opinion about relationship building

Is relationship building by agent or manager is a positive factor for selling insurance?



Source: Based on the information collected through questionnaire

TABLE 7: CUSTOMER OPINION ABOUT INVESTING WITH KNOWN AGENT

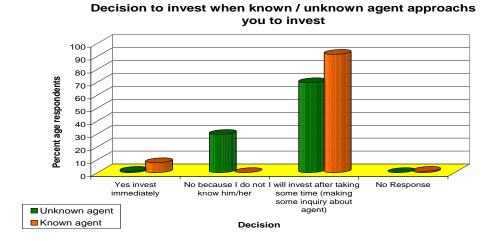
Known	N	Percentage
Yes invest immediately	8	7.62
No deposit knowing him/her	0	0.00
I will invest after taking some time	96	91.43
(making some inquiry about agent)		
No Response	1	0.95
Total	105	100.00

Source: Based on the information collected through questionnaire

The above table shows the investment patterns of respondents with respect to known agents. It was seen that 8 out of 105 i.e. nearly 7.62% of people told that they would invest immediately as they have a plan to invest and the agent is already known. None of the person said that they would not invest. 96 people told that they would invest after making inquiry. This shows that relationship

with agent or previous contact with agent is a factor for selling insurance and percentage of investment made with known agent is more. The importance of relationship development and maintenance is clearly shown as a larger volume of business is generated in cases where the agent is previously known.

Graph 6: Customer opinion about investing with known/unknown agent



Source: Based on the information collected through questionnaire

TABLE 8: DETAILS OF INSURANCE POLICIES TAKEN BY CUSTOMERS

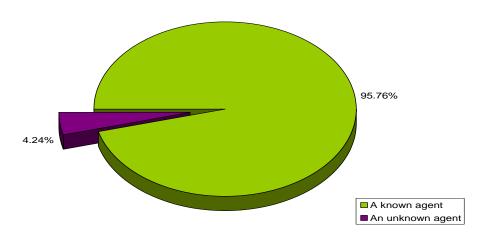
Agent	N	Percentage	Average policies taken		
A known agent	158	95.76	1.68		
An unknown agent	7	4.24	0.07		
Total 165* 100.00					
* Total number of policies that respondents have					

Source: Based on the information collected through questionnaire

The above table shows the difference between policies purchased from known and unknown agents. The respondents have a total of 165 policies out of which 158 have been purchased from a known agent and 7 have been purchased from an agent unknown to respondent. The average policies taken by the respondents from a known agent are 1.68 and from unknown agent is 0.07. This clearly shows the importance of Relationship Marketing as a number of policies people purchase from known agent is much more than the number of policies purchased from unknown agents. Relationship of client with agent is a very important factor for purchasing policy. The following graph explains the same result in a pictorial form:

Graph: 7: Details of insurance policies taken by customers

Policies taken from known/unknown agents



Source: Based on the information collected through questionnaire

TABLE 9: IMPORTANCE OF RELATIONSHIP MARKETING IN LIFE INSURANCE SECTOR

Response	N	Percentage
Very much	89	84.76
Much	10	9.52
Not very much (Little)	5	4.76
No need at all	0	0.00
No response	1	0.95
Total	105	100.00

Source: Based on the information collected through questionnaire

The above table shows the extent to which relationship marketing is considered important by the respondents. It was observed that out of 105 respondents 89 feel that relationship marketing is very much important. 10 respondents feel that it's important, 5 respondents think that it's little important and none of the respondents feel that it's of no importance and one was a case of non-respondent. All the respondents consider relationship marketing to be important to certain extent.

This clearly shows the importance of relationship marketing in insurance industry from customer point of view. Majority of customers consider Relationship Marketing very important for life insurance industry.

TABLE 10: APPROACH BY UNKNOWN AGENT

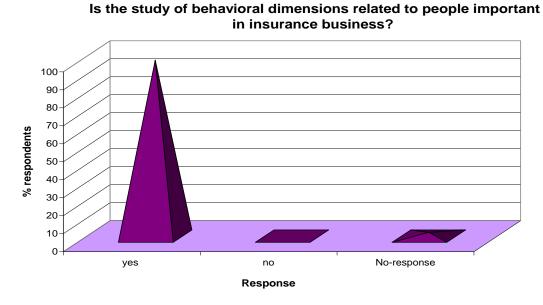
Policies	N	Percentage
Seminars	2	1.90
By taking reference from other	65	61.90
(your friends/relatives)		
By taking telephone numbers from telephone directory	49	46.67
Other	2	1.90

Source: Based on the information collected through questionnaire

The above table shows perception of people about how the agent or manager has approached them. Two respondents feel that the agent approaches through seminars, 65 feel that their references are taken by the agents from family and friends, 49 respondents said that references were taken from telephone directory and some others feel that the references were taken from other sources. This also shows relationship based marketing is important in insurance sector as references are generally obtained by relatives and known people.

This shows that from customer point of view Relationship Marketing is very important for success of life insurance industry

**Graph 8:** Importance of behavioural dimensions related to people



Source: Based on the information collected through questionnaire

**Analysis of Agents Questionnaire** 

TABLE 11:EFFECT OF RELATIONSHIP MARKETING ON MODIFICATION OF **BEHAVIOURAL DIMENSIONS** 

Response	N	Percentage
Highly effective	73	78.49
Effective	18	19.35
Little effective	0	0.00
Not effective at all	0	0.00
No response	2	2.15
Total	93	100.00

Source: Based on the information collected through questionnaire

The above table shows how important do agent considers relationship marketing in modifying the behavioural dimensions of people in a positive direction. It was observed that 73 agents felt that relationship marketing is highly effective in modifying consumer behaviour that comes to nearly 79%. 18 agents felt that relationship marketing is important and is effective in modifying consumer behaviour. None of the agent was of a negative opinion for the question and 2 did not respond.

TABLE 12: APPROACHING A KNOWN CLIENT

Response	N	Percentage
Yes	91	97.85
No	2	2.15
Total	93	100.00

Source: Based on the information collected through questionnaire

The above table shows the responses of agents with regard to approaching a known client. This question was asked to find out whether agents feel comfortable in approaching a known client. 91 agents told that they find it easy to approach the client if they know him previously and only 2 agents feel that knowing the client previously does not help in approaching him.

This knows that majority of the agents feel that approaching a person becomes very easy if they know him previously which again shows the importance of relationship building in the insurance industry. Its much easier to approach a person if agent previously knows him this saves a lot of time and creates a comfort level between agent and client.

**Graph 9: Approaching a known client** 

Is it easy to convince a client if you are already known to him/her?

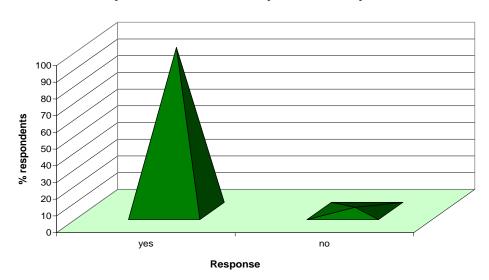


TABLE 13: CONVINCING A KNOWN CLIENT

Response	N	Percentage
To a great extent	74	79.57
To a certain extent	19	20.43
Not at all	2	2.15
Total	93	102.15

Source: Based on the information collected through questionnaire

This table shows the opinion of agents regarding convincing a known client .74 agents i.e. 79.5% of the agents feel that convincing a client becomes easier if they previously know him or share good relationship with him. 19 agents said that knowing a client helps to convince a client but to a certain extent and only 2 agents were of a negative opinion. This show that relationship building is

very important as if the client is known agents find it very easy to convince a client and if client is unknown more time is taken to convince him.

TABLE 14: INFLUENCE OF RELATIONSHIP MARKETING ON CONSUMER **BEHAVIOUR** 

Response	N	Percentage
Yes	93	100
No	0	0
Total	93	100.00

Source: Based on the information collected through questionnaire

The above table shows how the consumer purchase behaviour is affected by Relationship Building. All 93 agents i.e. 100% of respondents feel that customer purchase behaviour can be molded and motivated positively by relationship building. This shows that in opinion of agents relationship building/maintenance with customers is very beneficial in influencing consumer behaviour in a positive direction. Consumer purchase behaviour can be molded positively by relationship building, and relationship building can be very important for the success of the insurance industry.

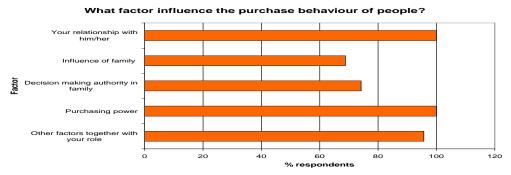
TABLE 15: FACTORS INFLUENCING THE PURCHASE BEHAVIOUR OF PEOPLE

Factor	N	Percentage
Your relationship with him/her	93	100.00
Influence of family	64	68.82
Decision making authority in family	69	74.19
Purchasing power	93	100.00
Other factors together with your role	89	95.70

Source: Based on the information collected through questionnaire

The above table shows the factors that influence the purchase behaviour of people in opinion of agents.93 respondents feel that their relation with the client influences their purchase behaviour to a great extent. 64 respondents feel that the influence of the client's family modifies or affects the purchase behaviour of people. 69 responses said that the role of decision-making authority in family affects the purchase behaviour of people. 93 responses said that purchasing power of people is important and 89 respondents said that clients consider all the factors important together with their role. This again shows the importance and role of relationship marketing as people consider agent's role important in influencing purchase behaviour.

Graph 10: Factors influencing the purchase behaviour of people



Source: Based on the information collected through questionnaire

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TABLE 16 A: PROPORTION OF BUSINESS RECEIVED FROM RELATIONSHIP AND NON-RELATIONSHIP BASED EFFORTS

From relationship	N	%	Not from relationship	N	%
75%	2	2.15	5%	4	4.30
80%	17	18.28	10%	60	64.52
85%	10	10.75	15%	10	10.75
90%	62	66.67	20%	17	18.28
95%	2	2.15	25%	2	2.15
Total	93	100.00	Total	93	100.00

Source: Based on the information collected through questionnaire

The above table shows the percentage of business agent receives from Relationship based marketing and percentage of business he receives from non-relationship based marketing. Two respondents feel that 75% of his total business is achieved from relationship based marketing, 17 respondents feel that 80% of business is achieved from relationship. 10 agents told that they receive 85% of business from relationships, 62 respondents feel that 90% of business is achieved from relationship and 2 agents feel that 95% of business is achieved from relationship marketing. This shows that agents get more business from known customers rather than unknown customers. This clearly indicates the importance of Relationship based marketing for the success of insurance sector.

TABLE 16 B: AVERAGE BUSINESS RECEIVED FROM RELATIONSHIP AND NON-RELATIONSHIP BASED EFFORTS

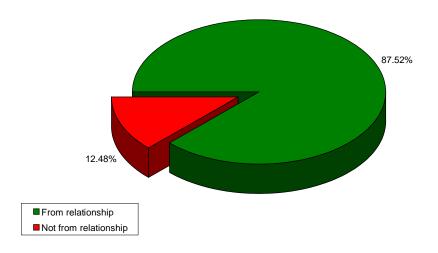
Source	Average % of business get from		
From relationship	87.42%		
Not from relationship	12.47%		

Source: Based on the information collected through questionnaire

The above table shows the average percentage of business received from relationship and that from non-relationship. It's observed that 87.42% of business is obtained on pure relationship basis and only 12.47% of business is obtained from non-relationship basis. This show that large volume of business is received from relationship-based efforts and comparatively less volume of business is received from non-relationship based efforts. This shows the importance of relationship-based marketing for generating large volume of business in the life insurance sector. Relationship Marketing is truly importance for Life Insurance Industry.

Graph 11: Percentage of business received from relationship and non-relationship

Percent age of business get from relationship and non-relationship



Source: Based on the information collected through questionnaire

#### **TESTING OF HYPOTHESES**

**Customer Ouestionnaire** 

#### TABLE 17: TIME TAKEN IN MAKING DECISION BY CUSTOMER

There is no significant association between time taken in making decision by the  $H_0$ : customer regarding investing and type of agent (Known/ Unknown agent)

	Unknown	Unknown Agent		Agent
	N	%	N	%
Yes	0	0.00	8	7.69
No	31	29.81	0	0.00
Not immediately	73	70.19	96	92.31
Total	104	100.00	104	100.00

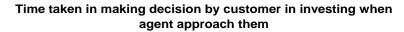
**Test** 

Chi Square	df	Result
42.13	2	***

Results: Chi square test shows significant association between type of agent and time taken in making decision by the customer regarding investing.

The result can be explained in simple words as if a person has to take a purchase decision, the time taken is more if he is approached by a unknown agent and time taken is less if he is approached by a known agent. It simply focuses on the concept of relationships and their importance in the insurance industry as the decision making time by the customer is reduced to a large extent in case the client is previously known to him.

Graph 12: Time taken in making decision by customer



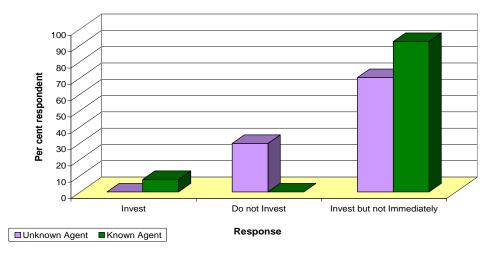


TABLE 18: NUMBER OF POLICIES TAKEN FROM KNOWN/UNKNOWN AGENTS

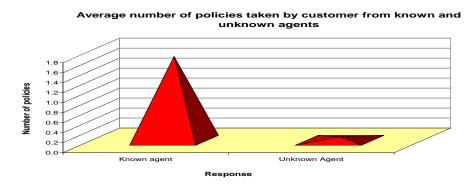
H<sub>0</sub>: There is no significant difference in the number of policies taken from a known and an unknown agent

Agent Type	N	Mean	SD	t	df	Result
Known agent	94	1.68	0.722	21.149	02	***
Unknown Agent	94	0.07	0.264	21.149	93	

**Results:** Significant difference was found in average number of policies taken from known and unknown agents.

The result of the test applied reveal that if people have multiple policies the number of policies taken from a known agent is more than number of policies taken from an unknown agent. The role of relationship building and relationship maintenance is shown in this way. People generally tend to avoid insurance people but in case of known agents relationship which they share and many times obligation becomes important and people purchase policies from them.

Graph 6.13: Number of policies taken from known/unknown agents



**Manager's Questionnaire** 

#### TABLE 19: NUMBER OF VISITS DONE BY KNOWN/UNKNOWN AGENTS

 $H_0$ : There is no significant association between number of visits done by agents known to customer and agents unknown to customer to make him/her invest.

No. of Visits	Known A	Agent	Unknow	<b>Unknown Agent</b>		
	N	%	N	%		
1 <sup>st</sup> visit	0	0.00	0	0.00		
2-3 visits	46	61.33	4	5.33		
3-4 visits	29	38.67	34	45.33		
4-5 visits	0	0.00	36	48.00		
> 5 visits	0	0.00	1	1.33		
Total	75	100.00	75	100.00		

**Test** 

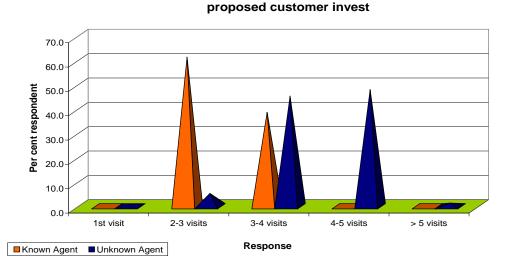
Chi Square	df	Result
72.677	2	***

Results: Significant association was found between numbers of visits done by the known and unknown agent in making target customer invest.

The result of Chi square again reveal that for agents more time is required to convince unknown clients and more visits to unknown client are required where as its much easy to convince a known client and comparatively few number of visits are required. This clearly a highlight the importance relationship in life insurance sector is a lot of time is saved if previous relationship exists between agent and client.

Graph 14: Number of visits done by known/unknown agents

Number of visits required by known and unknown agents to make



#### TABLE 20: OPINION OF PUBLIC AND PRIVATE SECTOR MANAGERS

There is no significant difference in the opinion of Public Sector and Private Sector Ho: managers regarding statement "Relationship based marketing is important in insurance industry"

Agent Type	N	Mean	SD	t	df	Result
Public	12	2.33	0.492	- 2.772	73	**
Private	63	2.73	0.447	2.772	73	

Results: Significant difference was found in the opinion of public sector and private sector managers regarding statement "Relationship based marketing is important in insurance industry". Private sector employees were in strong agreement with this statement as compared to public sector employee with this statement.

The result of the test reveal that though both public as well as private sector managers feel strongly for relationship marketing but private sector managers feel more strongly for it. It may be due to the fact that more private sector managers were interviewed and also the fact that LIC is the market leader and has few problems in generating business, but private companies have to face competition from LIC so a strong relationship marketing exercise is required more on their part.

**Graph 15: Opinion of public and private sector managers** 

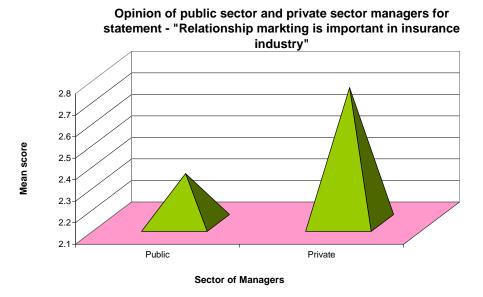


TABLE 21: QUANTUM OF BUSINESS RECEIVED FROM RELATIONSHIP AND NON-RELATIONSHIP

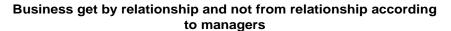
 $H_0$ : There is no significant difference in the quantum of business got form relationship and business NOT from relationship

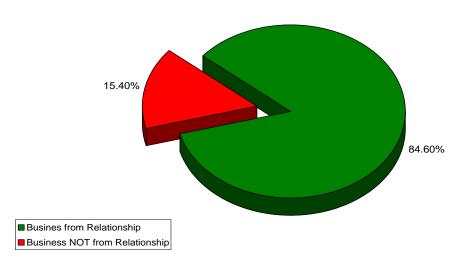
Agent Type	N	Mean	SD	t	df	Result
Business from Relationship	75	84.60	6.77			
Business NOT from	75	15.40	6.77	44.284	74	***
Relationship	13	13.40	0.77			

**Results:** Highly significant difference was found in the quantum of business got from relationship and not from relationship. Business that got from relationship is significantly higher that business got from non-relationship.

The results reveal that quantum of business received from relationship-based efforts was comparatively more than quantum of business received from non-relationship based efforts. It also shows that relationship marketing is very important for generating business for life Insurance Industry. People generally purchase insurance from known person more easily rather than from unknown person. This is due to the fact that comfort level exists between known person. This is due to the fact that comfort level exists between known person and sometimes due to obligation in a relationship people cannot refuse to purchase insurance.

Graph 16 : Quantum of business received from relationship and non-relationship





#### TABLE 6.90: EXTENT OF IMPORTANCE OF RELATIONSHIP MARKETING

H<sub>0</sub>: There is no significant difference in the opinion of Public sector and Private sector managers regarding statement "Relationship building is effective in modifying behavioural dimension".

Agent Type	N	Mean	SD	t	df	Result
Public	12	3.33	0.65	1 671	72	NIC
Private	63	3.62	0.52	- 1.671	13	NS

**Results:** Test results show non-significant difference in the opinion of public sector and private sector managers regarding statement "Relationship building is effective in modifying behavioural dimension. Both agree with this statement".

This show that the managers of both the companies private as well as public believe that proper relationship building is highly effective in moulding the behavioural dimensions of customers in the positive direction, which again highlights the importance of relationship marketing in insurance

industry. Relationship building has a positive impact on psychology of customer and they have a positive perception towards the company.

**Graph 17: Extent of importance of relationship marketing** 

Relationship building is effective in modifying behavioural dimension - Opinion of Public and Private Sector Managers

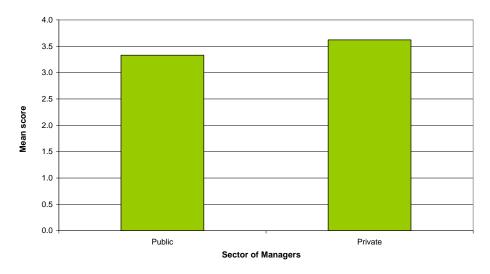


TABLE 22 : CONVENIENCE FELT BY PUBLIC AND PRIVATE SECTORS MANAGERS

There is no significant difference in the convenience felt by the public sector and Ho: private sector managers making investing a known customer.

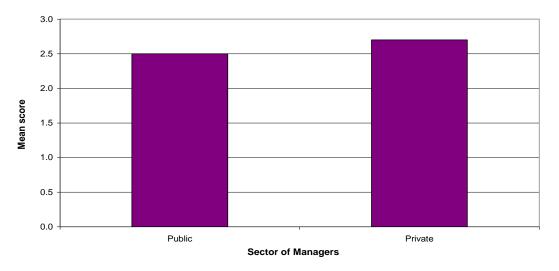
Agent Type	N	Mean	SD	t	df	Result
Public	12	2.5	0.15	1 221	72	NS
Private	63	2.7	0.06	- 1.334	13	IND

Results: Test results show non-significant difference in the convenience felt by the public and private sector agents in making invest a customer, if an manager/agent is already known to target customer.

This shows that in general both public as well as private sector managers feel that they feel more convenient while dealing with a known customer and less convenient while dealing with unknown customer. Again this factor shows the importance of relationship marketing for the insurance sector. Human tendency people feel more comfortable with someone they know and this factor is the base for the above hypothesis.

**Graph 18 : Convenience felt by public and private sectors managers** 

# Convenience felt by the Public sector and Private sector managers making investing a known customer



#### **Agent Questionnaire**

## **TABLE 23: NUMBER OF VISITS DONE BY KNOWN AGENTS**

H<sub>0</sub>: There is no significant association between numbers of visits done by agents known to customers to make him/her invest.

V/: a:4 a	Public se	ector agent	Private sector agent		
Visits	N	%	N	%	
1 <sup>st</sup> visit	0	0.00	3	3.75	
2-3 visits	7	77.78	60	75.00	
3-4 visits	2	22.22	17	21.25	
Total	9	100.00	80	100.00	

**Test** 

Chi Square	df	Result
0.349	2	NS

**Results:** Non-significant association was found in the type of agent (private or public sector agent) and number of visits done to make a target customer invest, if an agent is already known to customer.

The result of Chi square test show that in general for both public as well as private sector agents/managers fewer visits are required to make a person invest if the client is already known to the manager or agent. This again shows the importance of relationship marketing in the life Insurance Industry.

Graph 19: Number of visits done by known agents



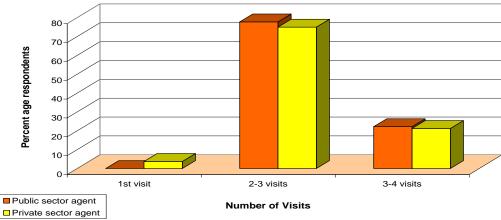


TABLE 24: NUMBER OF VISITS DONE BY UNKNOWN AGENTS

H<sub>0</sub>: There is no significant association between numbers of visits done by agents unknown to customer to make him/her invest.

Visits	Public se	ector agent	Private sector agent		
	N	%	N	%	
2-3 visits	1	11.11	2	2.50	
3-4 visits	2	22.22	44	55.00	
4-5 visits	6	66.67	31	38.75	
> 5 visits	0	0.00	3	3.75	
Total	9	100.00	80	100.00	

**Test** 

Chi Square	df	Result
5.315	3	NS

**Results:** Non-significant association was found in the type of agent (private or public sector agent) and number of visits done to make a target customer invest, if an agent is unknown to customer.

This shows that if the customer is known to agent or manager fewer visits are required and if the agent is unknown to customers more visits are required. This in turn revealed another important factor. In case of public sector agents less visits are required as compared to private sector agents. This fact clearly shows the brand loyalty of people towards LIC and relationship building exercise done by the private sector agents.

Graph 20: Number of visits done by unknown agents

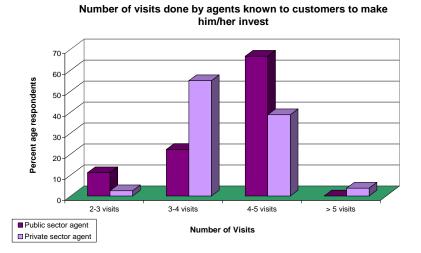


TABLE 25: NUMBER OF VISITS DONE BY PUBLIC/PRIVATE SECTOR AGENTS

H<sub>0</sub>: There is no significant association between number of visits done by agents and type of agent (public sector or private sector agent) to make him/her invest.

Visits	Public se	ector agent	Private sector agent		
	N	%	N	%	
1 <sup>st</sup> visit	3	3.23	0	0.00	
2-3 visits	70	75.27	4	4.30	
3-4 visits	20	21.51	47	50.54	
4-5 visits	0	0.00	39	41.94	
> 5 visits	0	0.00	3	3.23	
Total	93	100.00	93	100.00	

**Test** 

Chi Square	df	Result
114.745	4	***

**Results:** Highly significant association was found in the number of visits done to make a target customer and type of agent (public or private sector) he/she is.

Public sector agents require less number of visits as compared to private sector agents.

The result of t test revealed that both public as well as private sector agents are of the opinion that relationship marketing is very important in the insurance sector.

Graph 21: Number of visits done by public/private sector agents

Number of visits done by agents and type of agent (Public sector

or private sector agent) to make him/her invest

TABLE 26: OPINION OF PUBLIC AND PRIVATE SECTOR AGENTS

H<sub>0</sub>: There is no significant difference in the opinion of agents of public sector and private sector insurance companies regarding statement "relationship based marketing is important in insurance industry"

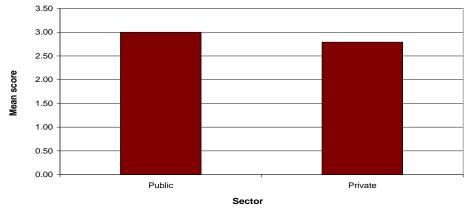
Company	N	Mean	SD	t	df	Result
Public	9	3.00	0.000	1 110	07	NIC
Private	80	2.79	0.567	1.119	87	NS

**Results:** Non-significant difference was found in the opinion of public sector and private sector agents regarding statement – "Relationship based marketing is important in the insurance industry".

It's seen that volume of business got from relationship building exercise is much more than that which is received from non-relationship building exercise. This shows that practice of proper relationship building exercise is very important for the Insurance Industry.

**Graph 22: Opinion of public and private sector agents** 

Opinion of agents of public sector and private sector insurance companies regarding statement "Relationship based marketing is important in insurance industry"



# TABLE 27: QUANTUM OF INSURANCE BUSINESS GOT FORM RELATIONSHIP AND NOT FROM RELATIONSHIP

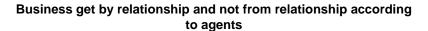
There is no significant difference in the quantum of insurance business got form  $H_0$ : relationship and NOT from relationship

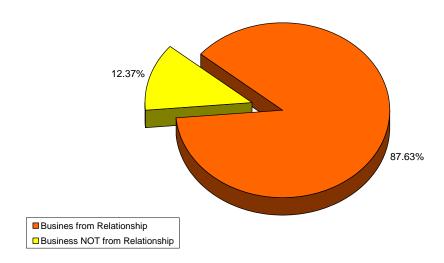
Agent Type		N	Mean	SD	t	df	Result
Business Relationship	from	89	87.53	4.338			
Business NOT Relationship	from	89	12.36	4.465	80.835	88	***

Results: Highly significant difference was found in the business got from relationship and nonrelationship. In the opinion of agents business got from relationship is significantly higher than that got from non-relationships.

It's seen that in the opinion of agents business received from relationship-based efforts is much more than business got from non-relationship based efforts. This truly shows the importance of relationship marketing in the life insurance sector.

Graph 23: Quantum of insurance business got form relationship and not from relationship





#### TABLE 28: TIME TAKEN IN MAKING DECISION BY CUSTOMER

 $H_0$ : There is no significant association between time taken in making decision by the target customer regarding investing and type of agent (known/ unknown agent) in opinion of agent.

	Unknow	n Agent	Known Agent		
	N	%	N	%	
Yes	1	1.08	14	15.05	
No	57	61.29	1	1.08	
Not immediately	35	37.63	78	83.87	
Total	93	100.00	93	100.00	

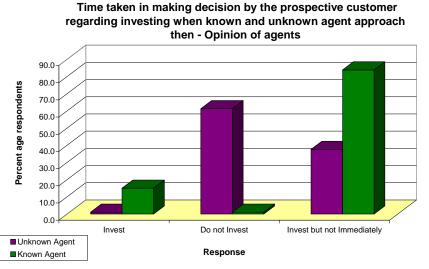
**Test** 

Chi Square	df	Result
81.968	2	***

Results: Highly significant association was found between type of agent (known or unknown) and time taken by the target customer in making him/her invest. Known agents require less time than that or unknown customers.

The result of Chi square test show that known agents require less time to convince a customer and unknown agents require more time to convince a customer. This shows that relationship building exercise not only brings in business but also saves lot of time so insurance industry is truly benefited by relationship building and marketing.

Graph 24: Time taken in making decision by customer



#### 8. FINDINGS OF THE STUDY

The research "Study Of Relationship Marketing On Consumer Buying Behaviour In Life Insurance Industry" revealed many facts. It was observed that relationship marketing is directly related to the success of life insurance industry and if properly applied it can be beneficial for the industry.

Three categories of respondents were taken i.e. customers, managers and agents of the insurance companies. Each of respondents was given a prepared set of questionnaire and based on the questions asked conclusions were drawn.

- 1) While interviewing the respondents it was observed that the people have a positive outlook towards the concept of Relationship Marketing and are in favor of the topic. Relationship Marketing was found to be supportive in generating business for the industry, another fact that was observed was that many people purchase insurance just for the relationship they share with the agent or the sales manager. The various findings of the study were:
- 2) Based on the information collectedit was observed that number of males working in the Insurance Industry was much more than the number of females.
- 3) It was observed that more number of of people having insurance policy were married. More number of married people purchasing insurance suggests that with the increase in family responsibility the need for insurance increases and earning member of the family purchase insurance for the financial security of the dependents in case of any misfortune
- **4).** It was seen that more number of people prefer LIC and the interest of people towards private insurance companies is less. Maximum respondents support LIC in comparison to private life insurance companies and LIC enjoys a monopoly in the market.
- 5) It was revealed that teams of Mangers and agents work together, build relationships with customer and on the basis of these relationships business is generated. The questions asked suggest that the relationship, which exists between customer and agent/manager, motivates or moulds the consumer buying behaviour to a great extent. Many customers told that most often they purchase insurance just for the sake of obligation in the relationship and many customers felt that knowing the agent/manager gives them a feeling of trust and confident.
- 6) It was found that people are highly influenced by the strategy used by the agent or manager. The people believe that the agent or manager play a very important role in their purchase behaviour. It has also been observed that overtime people developed a feeling of trust and loyalty with their agents and managers. So it can be said that people generally get motivated by the behaviour and strategy followed by an agent or manager and a positive result is achieved.
- 7) The analysis shows that people give a lot of importance to relationships. Their relationship with the agent or manager plays a very important role in their purchase behaviour. People feel that relation with agent/manager is a very important factor to purchase insurance. Many times people are convinced by the agent or manager and sometimes people purchase insurance for the sake of relationships.
- 8) It is a fact that people not only believes a known person but many time the type of relation between the agent and customer makes it obligatory or compulsory to purchase insurance. Due to the relationship that exists between agent and customer the customer sometimes cannot refuse the agent and has to purchase a policy. So it can be said that large portion of the insurance business comes by obligation. This means that people purchase insurance most of the times under obligation from some
- 9) It is a fact that people have considerations regarding their future pension requirements and invest in pension funds. This shows that people want financial security for their future so they invest in various schemes in order to ensure a secure future.

- 10) It was observed that 95 percent of people purchase policy from a known agent. Knowing an agent is a positive factor as people have a feeling of trust with a known agent. So generally people purchase a policy if a known agent approaches them. T-test applied to find out the difference between policies taken from known and unknown agents give a 93 difference value and showed that people generally purchase insurance from known person rather than unknown person. It shows how important relationship marketing is for the insurance sector as maximum business in this sector is received based on relationships.
- 11) Analysis revealed that 97.8 percent of agents feel that a study of behavioural dimensions related to people is very important for the insurance industry. Agents believe that a proper study of the behavioural dimensions related to people will be very helpful in understanding the psychology of customer and will help the agents to take action accordingly. A study of behavioural dimensions will help the agent to understand the psychology of the consumer and act accordingly
- 12) It was observed that 78 percent of agents considered relationship building to be highly effective in moulding the consumer behaviour in a positive way. It was observed that many times continuous interaction between agent and customer helps in developing a bond between them. Therefore it can be said that proper relationship building exercise can mould consumer behaviour in a positive way.
- 13) Nearly 97 percent of the agents are of the opinion that it is much easier to approach a known client rather than approaching a unknown client. Agents feel that approaching a known client is much easier than approaching an unknown client. They feel that a comfort level exists while dealing with a known person and thus interaction becomes much easier.
- 14) It is seen that approximately 78 percent customers got the information about the insurance product from the agent of the company. 40 percent customers got the information from advertising. This clearly shows that agent is the best source of information for the customers and relationship building exercise done by the agents can be a positive factor for selling insurance.
- 15) Study shows that 75 percent of the customers consider their relationship with the agent as a very important factor for purchasing insurance. It is also seen that this fact as 91 percent of customer considers the influence of the agent or manager as a very important factor that influence their purchase decision.
- 16) It is observed that customers take less time to make a purchase decision in case a known agent approaches them and more time is taken to make a decision in case a unknown agent approaches them for business. Hypothesis tested by applying chi-square test on assumption "There is no significance association between time taken in making decision by the customer regarding investing and type of agent (known/unknown)" shows that their exist a significant association between type of agent and time taken in making decision by the customer regarding investing. Further it was also observed that people generally purchase policies from a known agent. t-test applied to find out the result regarding policies taken from known and unknown agent revealed the fact that there exists a significant difference in average number of policies taken by the customers from known and unknown agents.
- 17) Agents are motivated by positive attitude by sales managers and company. Agents feel good by a positive and good behaviour from the company management and this way proper relationship building by managers with agents can be beneficial for the company.

- 18) Study shows that in opinion of agents consumer buying behaviour is positively motivated by relationship building. Proper relationship building can create a positive attitude in mind of people. This way the company gets permanent customers.
- 19) Shows that in opinion of agents the business received from relationship based marketing is much more than that from non-relationship based marketing. Hypothesis tested from the above fact by applying t-test gave the df as 88 and a highly significant difference was observed. This shows that in opinion of agents volume of business received from relationship based efforts is much more than the volume of business received from non-relationship based efforts. This truly highlights the importance of relationship based marketing in the insurance sector.
- 20) The result of t-test applied on the hypothesis that "There is no significant difference in the number of policies taken from a known and unknown agent." The result shows a df of 93 which implies that there exists highly significant difference among the two factors. This reveals the fact that even in cases where people have multiple policies, the number of policies taken from known agent is much more than the number of policies taken from unknown agents. The role of relationship building is clearly highlighted in this way.
- 21) Study shows the results of the hypothesis tested to find out the association between number of visits done by known and unknown agents. Chi-square test was applied to the hypothesis framed. The result showed a highly significant difference showing that comparatively more number of visits are required to convince an unknown customer whereas fewer visits are required to convince a known customer.
- 22) The results of hypothesis tested for to find out the results of the opinion of public and private sector managers regarding the importance of relationship marketing. t-test was applied to find out the result and a significant difference was found. This means that both public as well as private sector managers have a positive view about relationship marketing. But it is a fact that private sector managers feel more strongly for relationship marketing. LIC is the only public sector company and enjoys a monopoly position in the market. All private companies have to face a tough competition with LIC so private sector managers considered relationship marketing.
- 23) The convenience felt by public and private sector managers in making investing a known customer. t-test was applied to test the results of the hypothesis framed and a non-significant difference was observed. This shows that both public as well as private sector managers feel positively for relationship marketing. Managers of both the sector feel that its much more easy to convince a known client than convincing an unknown client.
- 24) Insurance sector has a high target pressure associated with it. The managers as well as agents have to work under a very high target pressure and have to work hard to achieve these targets.
- 25) Employee turnover rate in the private insurance companies is very high. According to the managers this is mainly due to very tough working conditions and a decline in the sector.
- **26**) It was observed that few communities were not interested in purchasing insurance.
- 27) People as they sometimes try to avoid meeting insurance persons, many also avoided filling up the questionnaire.
- 28) The strict rules and norms by IRDA often creates problem for the companies to sustain and grow.
- 29) Relationship Marketing generally creates a feeling of trust among people which is a most positive factor for purchase of insurance.

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### FINTECH IN INDIA – OPPORTUNITIES AND CHALLENGES

Dr. C. Vijai\*

\*Assistant Professor, Department of Commerce, St.Peter's Institute of Higher Education and Research. Chennai, INDIA Email id: Vijaialvar@gmail.com

### **ABSTRACT**

Fintech is financial technology; Fintech provides alternative solutions for banking services and non-banking finance services. Fintech is an emerging concept in the financial industry. The main purpose of this paper accesses the opportunity and challenges in the fintech industry. It explains the evolution of the fintech industry and present financial technology (fintech) in the Indian finance sector. The fintech provide digitalization transaction and more secure for the user. The benefits of fintech services reducing operation costs and friendly user. The fintech services India fastest growing in the world, the fintech services are going to change the habits and behavior of the Indian finance sector.

**KEYWORDS:** Artificial Intelligence, Open Banking, Block Chain, Financial Services, Fintech Revolution. Crypto Currency,

### INTRODUCTION

The term "FinTech" was first coined by a New York banker in 1972. While there is no widely accepted definition of what lies under the term FinTech, companies considered to belong to that sector provide services including payment options, online marketplace lending, mobile apps, financing, foreign exchange and remittances, investments, distributed ledger tech, digital currencies, mobile wallets, artificial intelligence and robotics in finance, crowd funding, insurance, and wealth management, with an expanded definition considered to include ancillary technology solutions targeted at financial services, such as digital identity, biometrics, wearables, and technology to assist with Regulatory Compliance (RegTech) (Digital Finance Institute, 2016). As such, the financial services sector has become significantly impacted and influenced by emerging technology-enabled trends that support innovation.

A recent report by Ernst and Young (2016), Capital Markets: Innovation and the FinTech Landscape identified the following nine technologies or technology-enabled trends that, individually or collectively, facilitates current and future FinTech innovations:

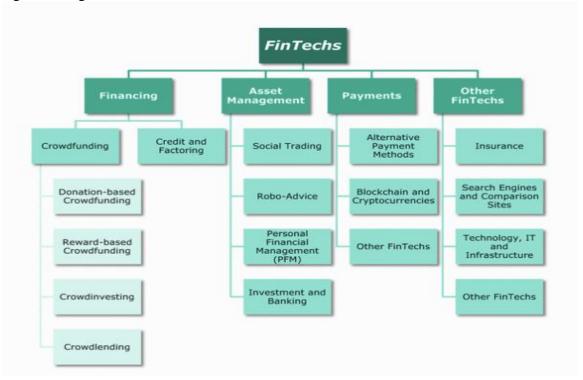
- 1. Cloud technology
- 2. Process and service externalization
- 3. Robotic Process Automation (RPA)
- 4. Advanced Analytics
- 5. Digital Transformation
- 6. Block chain
- 7. Smart Contracts
- 8. Artificial Intelligence (AI)
- 9. Internet of Things

### WHAT IS FINTECH?

Fintech refers to the novel processes and products that become available for financial services thanks to digital technological advancements. More precisely, the Financial Stability Board defines fintech as "technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services".

Nonetheless, the Fintech segment includes many elements, which according to Dortfleitneret al. (2017: 34-36) can be "loosely" categorized into four main segments i.e. "financing", "asset management ", "payments" and "other Fintechs". The four main segments along with their elements are visible in figure 1, below.

Figure 1: Segments and elements of Fintech



Source: Segments and Elements of Fintech (Dortfleitner et al. 2017: 37).

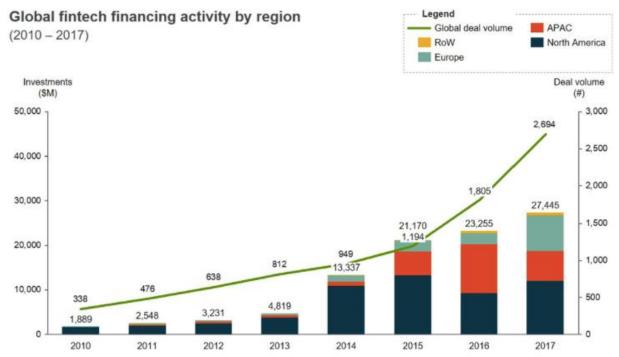
### THE EVOLUTION OF FINTECH INDUSTRY

The Pantelegraph was Invented
Using Charge Plates and Charge Coins For Credit
The Invention of Fedwire
An Important Book Was Published Linking Finance and Technology
Diner 'S Club Introduced a Credit Card
American Express Introduced Their Credit Card
Quotron Allowed Stock Market Quotes to be Shown on a Screen
Telegraph Replaced by the Telex Network
First ATM Installed By Barclays Bank
NASDAQ Established
Evolution of E – Trade and Online Banking
Release of Bitcoin
Google Pay Send Developed ( Google Wallet )
"Smile To Pay" Services Introduced by Alibaba

Source: www.getsmarter.com

### GLOBAL FINTECH FINANCING ACTIVITY

Figure 2: Global Fintech Financing Activity



Source: Global Fintech Financing Activity 2010-2017 (Accenture 2018: 1).

The data provided in Figure 2, shows that Fintech is a segment of the financial services sector that is still in its infant stage and far more investment is required if Fintech startups are to compete with traditional, cash-rich and politically influential financial services providers (Bugrov et al. 2017: 2-3). Despite this, the global traditional financial services providers need to pay attention to the development of Fintech and try to update and improve their strategies and services and protect themselves from losing market share to Fintech companies (Bugrov et al. 2017: 2-3).

### FINTECH IN INDIA

According to the report of (KPMG 2016), India is transitioning into a dynamic ecosystem offering fintech start-ups a platform to potentially grow into billion dollar unicorns. From tapping new segments to exploring foreign markets, fintech start-ups in India are pursuing multiple aspirations.

The Indian fintech software market is forecasted to touch USD 2.4 billion by 2020 from a current USD 1.2 billion, as per NASSCOM. The traditionally cash-driven Indian economy has responded well to the fintech opportunity, primarily triggered by a surge in e-commerce, and Smartphone penetration. The transaction value for the Indian fintech sector is estimated to be approximately USD 33 billion in 2016 and is forecasted to reach USD 73 billion in 2020 growing at a five-year CAGR of 22 percent.

The investor attention has been concentrated towards hitech cities in 2015, with Bengaluru witnessing eleven VC-backed investment deals of USD 57 million, followed by Mumbai and Gurgaon with nine and six deals, respectively. Bengaluru, the start-up capital of India has benefitted from the same and is ranked 15 among the world's major start-up cities.

India's growth wave may still not be of the scale when viewed against its global counterparts, but it is stacked well, largely due to a strong talent pipeline of easy-to-hire and inexpensive tech workforce. From wallets to lending to insurance, the services of fintech have redefined the way in which businesses and consumers carry out routine transactions. The increasing adoption of these trends is positioning India as an attractive market worldwide.

### FINTECH ADOPTION IN INDIA

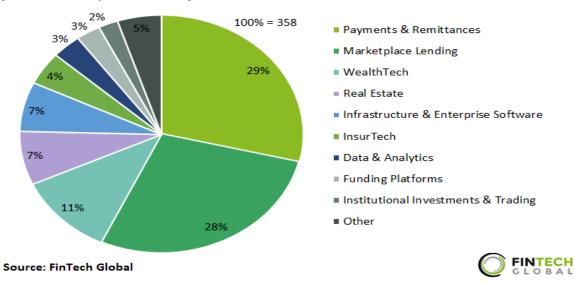
FinTech adoption in India has increased significantly over the last two years and according to EY's FinTech Adoption Index 2017, India has progressed to become the market with the second-highest FinTech adoption rate (52%) across 20 markets globally. This holds true for each of the five categories of services with digitally active Indian consumers displaying 50%— 100% higher adoption rates than global averages. (EY FinTech Adoption Index 2017)

Figure 3: FinTech adoption among digitally active consumers



Source: EY FinTech Adoption Index 2017 Country Dashboard.

Figure 4: Fintech investments in India by sector FinTech Investments in India by Sector, 2014 - 2017 YTD (number of deals, as of 30/10/17)



### ECOSYSTEM COVERAGE OF THE INDIAN FINTECH SECTOR

### Government

The government is naturally the prima facie catalyst for the success or failure of fintechin a heavily regulated financial industry. The Government of India along with regulators such as SEBI and RBI are aggressively supporting the ambition of the Indian economy to become a cashless digital economy and emerge as a strong fintech ecosystem via both funding and promotional initiatives. (Fintech in india KPMG report 2016)

The following multi-pronged approach has been taken to enable penetration of the digitally enabled financial platforms to the institutional and public communities:

### **Funding Support**

❖ The Start-Up India initiative launched by the Government of India in January 2016 includes USD 1.5 billion fund for start-ups.

### Financial inclusion and enablement

- ❖ Jan Dhan Yojana: added over 200 million unbanked individuals into the banking sector
- ❖ Aadhar has been extended for pension, provident fund and the Jan Dhan Yojana.

### Tax and surcharge relief

A few notable initiatives on this front are:

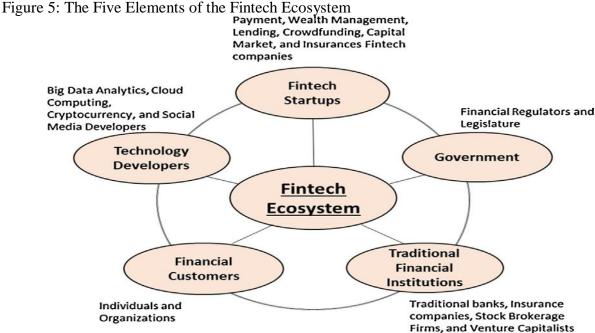
- ❖ Tax rebates for merchants accepting more than 50 percent06of their transactions digitally.
- ♦ 80 percent06rebates on the patent costs for start-ups.
- ❖ Income tax exemption for start-ups for first three years.
- Exemption on capital gains tax for investments in unlisted companies for longer than 24 months (from 36 months needed earlier).
- Surcharge on online and card payments for availing of government services proposed to be withdrawn by the Ministry of Finance.

### **Infrastructure support**

- ❖ TheDigitalIndiaandSmartCitiesinitiativeshavebeenlaunchedtopromotedigitalinfrastructuredevel opmentinthecountryaswellasattractforeigninvestments.
- ❖ Thegovernmentrecentlylaunchedadedicatedportaltoprovideeaseinregistrationtostart-ups.

### **IP** facilitation support

Startups will get support from the government in expenses of facilitators for their patents filing, trademark and other design work.



### REGULATORS

In India, RBI has been instrumental in enabling the development of fintech sector and espousing a cautious approach in addressing concerns around consumer protection and law enforcement. The key objective of the regulator has been around creating an environment for unhindered innovations by fintech, expanding the reach of banking services for unbanked population, regulating an efficient electronic payment and providing alternative options to the consumers.

Fintech enablement in India has been seen primarily across payments, lending, and security/biometrics and wealth management. These have been the prime focus areas for RBI and we have seen significant approaches published for encouraging fintech participations. Examples:

- > Introduction of "Unified Payment Interface" with NPCI, which holds the potential to revolutionize digital payments and take India closer to objective of "Less-Cash" society, Approval to 11 entities for setting up Payments Bank and approval to 10 entities for setting up Small Finance Banks that, can significantly run in favour of cause for Financial Inclusion.
- Release of a consultation paper on regulating P2P lending market in India and putting emphasis for fintech firms and financial institutions to understand the potential of blockchain.
- > One of the areas with a huge scope is around managing P2P remittances in India. In India, the smaller the remittance size, the higher is the transaction cost percentage, which makes it extremely expensive for beneficiaries involved in transactions. This massive problem is a big opportunity for any fintech firm committed to address it well, as has been guided in the mature markets. Example:
- > Some of the fintech firms such as Transfer Wisein UK, have come up with a remittance platform; and with the rising acceptability of the same, the firm has touched a valuation of USD 1.1 billion.
- > In summary, the Indian regulators have played a laudable role to support the fintech sector growth in India, and such momentum is required for even more radical and well-timed policy

initiatives going forward. Indian regulators may be at a stretch balancing the complex regulatory framework building activity and monitoring the fast-moving Indian fintech market. To address this, they can work towards adopting some of the regulatory practices in line with those established across the globe. Examples:

- ➤ In the UK, Financial Conduct Authority (FCA) launched an initiative in name of "Project Innovate" for helping start-ups work with British financial regulators to launch innovative products in the market.
- ➤ In the U.S, adoption of "BitLicense" regulation by the New York State Department of Financial Services in 2015 is proving to be instrumental in enabling innovation.

### FINTECH INNOVATIONS, PRODUCTS AND TECHNOLOGY

According to a report by WEF 2015, there is no commonly accepted taxonomy for FinTech innovations. In order to get a sense of the broad nature of the ongoing developments in this area, the WG categorized some of the most prominent FinTech innovations into five main groups through its scoping exercise. Though this does not represent a comprehensive review of all FinTech innovations, it highlights those regarded as potentially having the greatest effects on financial markets.

A simple categorization of some of the most prominent FinTech innovations into groups according to the areas of financial market activities where they are most likely to be applied is as under:

### CATEGORIZATION OF MAJOR FINTECH INNOVATIONS

Payments, Clearing & Settlement	Deposits, Lending & capital raising	Market provisioning	Investment management	Data Analytics & Risk Management
Mobile and web- based payments Digital currencies Distributed ledger	Crowd-funding Peer to peer lending Digital currencies Distributed Ledger	Smart contracts Cloud computing e-Aggregators	Robo advice Smart contracts e-Trading	Big data Artificial Intelligence & Robotics

Source: WEF 2017.

### THE FUTURE OF FINTECH IN INDIA

As we understood, Fintech has already caused a revolution and Fintech entrepreneurs have begun to disrupt the financial services industry in several forms. Let us now explore the Fintech ecosystem and the sectors in Fintech which will roll the next set of innovations.

❖ Blockchains- Traditionally, transactions needed a third-party validation to take place. Then came blockchains which did away with third part reconciliation and provided cryptographic security. Bitcoins, which use the blockchain technology, have already become a rage. But blockchains are expected to go way beyond just bitcoins, payment transactions, banking industry and foray into various other sectors like media, telecom, travel and hospitality etc.

- ❖ Alternate lending- Traditional banking industry found it unprofitable to lend to small entrepreneurs. Fintech entrepreneurs took advantage of this opportunity by diving into Peer to peer (P2P) based lending and building web platforms to bring together the lenders and borrowers at lower interest rates. This trend is set to continue and other alternate lending avenues like crowd funding are set to emerge further.
- \* Robo advisory- Earlier intermediaries played an important role between the stock market and the investors. Many times this led to non-traceable and inefficient transactions. Robo advisory will make the stock market easier to access, transparent and traceable and give more value addition to the smarter investors.
- ❖ **Digital payments-** Fintech start-ups have increased the speed and convenience of payments. Mobile wallets have already replaced traditional wallets in a lot of places and will penetrate further with better and faster payment options. And yes, ATMs will become redundant too.
- ❖ Insurance sector- Currently, we can find various online market places where consumers can compare their insurance policies and take prudent decisions. Fintech will further bring in technological revolution in the insurance value chain through automation driven by data and thereby not only reduce the cost of operations but increase the length and breadth of products available in the market.

### TYPES OF FINTECH COMPANIES

According to Accenture, financial technology companies can be classified into two major categories that are Competitive Fintech Ventures and Collaborative Fintech Ventures. In the latest report in 2016, Accenture explains that the Competitive Fintech Companies are those who will cause direct obstacles as well as create challenges for the financial services organizations. These companies have achieved a lot of success over the years by focusing mainly on providing new experiences and benefits to their customers through technology products instead of targeting at high profits. For example, the professional business strategies with the preferred price offered by eToro aim at supporting, advising and providing optimal solutions for the retail investors. Moreover, the card service has also been upgraded and developed by Square to maximize benefits for micro merchants. (Accenture 2016)

On the other hand, Accenture also does not forget to emphasize the importance of Collaborative Fintech Companies in driving the evolution of the financial institutions. In fact, the Collaborative Fintech Ventures consider the existing financial institutions as their potential customers. Therefore, they always try to cooperate, support, and provide solutions to improve the position and the interests of these financial institutions in the market. To illustrate, the Collaborative Fintech Firms help the financial institutions to innovate their products and services as well as break their traditional business model to bring a new and more sustainable development in the future. Besides that, they also help financial institutions optimize their existing enterprise, minimize costs and simplify procedures as well as everyday financial services through the innovation and the application of the high-tech products. (Accenture 2016)

### TOP FINTECH COMPANIES IN INDIA

Ranking	<b>Company Name</b>	<b>Business category</b>			City	<b>Total Funding</b>	
1	Paytm	Mobile	wallet,	e-comn	nerce	Noida	\$890M
		platform and payment bank					
2	MobiKwik	Mobile	wallet,	recharge,	bill	Gurgaon	\$86.8M

		payments		
3	BankBazaar	Online marketplace providing customized rate quotes on loans and insurance products	Chennai	\$80M
4	policybazaar	Leading online insurance aggregator in India	Gurgaon	\$69.6M
5	FINO PayTech	Financial inclusion technology provider	Mumbai	\$65M
6	ItzCash	Multi Purpose Prepaid Cash Card	Mumbai	\$50.6M
7	Capital Float	Online lending platform for small businesses	Bangalore	\$42M
8	Mswipe	PoS terminal for accepting card payments	Mumbai	\$35M
9	Ezetap	Payment device maker	Bangalore	\$35M
10	Citrus Pay	Payment gateway and mobile wallet	Mumbai	\$34.5M

Source: Tracxn.(June 06, 2016). India's 50 Most Well-Funded Fintech Companies.

### CHALLENGES AND FUTURE PERSPECTIVES

- ❖ In India, acceptance of various cashless modes payments was seen after demonetization notes. The government itself encouraged everyone towards the cashless technologies like digital wallets. Internet banking, and the mobile-driven point of sale (POS).
- Linking with the Aadhaar card, eKYC, UPI and BHIM had restructured the financial sector in India. After the ban of 500 and 1000 notes, it was reported that digital transactions raised up to 22% in India FinTech start-ups like PayTM saw 435% of more traffic to the websites and Apps. This led to the growth of many FinTech start-ups in India as there are many opportunities to grow.
- ❖ Digital Finance firms have benefited from many government's start-up policies. Reserve Bank of India also allowed an easy way to start a FinTech start-up. Government is also providing the financial assistance for start-up's up to 1 crore. Customers started accepting the digital currency for both personal and commercial use.
- ♦ Due to various changes in the Indian economy, the financial structure of Indian banks and financial institutions were changed and digital wallet became a mandatory channel for the transfer of payments.
- ❖ Integration of IT with finance led to the increase in the value of digital money like Bitcoins. Crypto currency, Block chain system led to faster transactions of digital payments.
- ♦ Banks like HDFC, Federal Bank etc. linked there official digital transactions with the small startup in India like Startup Village which led to the growth even in small FinTech start-ups.
- ♦ Modernization of the tradition sector of banking and finance had increased more customers, reduced the time and were able to provide fast and quick services to the customers.
- FinTech industry also has few challenges, like Fintech startups, find a little difficult to reach the growing phase in the business cycle.

- Collaboration and adoption rate is quite less but the ratio is moving upwards with a 59% increase in the digital payments.
- ❖ Integration of many other techniques like blockchain management, cryptocurrency is not still in a niche stage in India.
- Transparency of the regulatory issues and hiring of tech personnel are among the key challenges of the Indian FinTech space.

### **Key Challenges**



Hiring challenges for Indian fintechs



Source: www.investindia.gov.in

- Innovation has been a bit limited for the low-income groups. Additionally, mass awareness and internet bandwidth is still a huge roadblock in India.
- As a coin has two faces even FinTech industry in India also have few challenges, Yet these challenges can be converted into opportunities if a further support is provided by the government. (Parinita Gupta, 2018, Fintech Ecosystem in India: Trends, Top Startups, Jobs, Challenges and Opportunities)

### **CONCLUSION**

The result of this study shows that Fintech industry change for the financial services in India. and India's fastest growing fintech industry in the world. In the feature, Indian fintech software market is forecasted to touch USD 2.4 billion by 2020 from a current USD 1.2 billion, as per NASSCOM. The traditionally cash-driven Indian economy has responded well to the fintech opportunity, primarily triggered by a surge in e-commerce, and Smartphone penetration. The transaction value for the Indian fintech sector is estimated to be approximately USD 33 billion in 2016 and is forecasted to reach USD 73 billion in 2020 growing at a five-year CAGR of 22 percent. The Indian government also focuses on and encourages fintech industry and promote new ideas and innovations refer to the fintech industry. Fintech is an emerging concept in the financial industry. Financial technology innovation in India more advantage for the Indian economy, the fintech services more secure and user-friendly, the fintech services reduce their costs for financial services.

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# SAARJ Journal on Banking & Insurance Research (SJBIR)



(Double Blind Refereed & Reviewed International Journal)

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### PREDICTION OF CREDIT RISKS IN LENDING BANK LOANS USING MACHINE LEARNING

Mohit Lakhani\*; Bhavesh Dhotre\*\*; Saurabh Giri\*\*\*

\*Student,

Narsee Monjee Institute of Management Studies, Mumbai, INDIA

Email id: mohitjlakhani@gmail.com

\*\*Student,

Narsee Monjee Institute of Management Studies, Mumbai, INDIA Email id: dhotrebhavesh7@gmail.com

\*\*\*Student.

Narsee Monjee Institute of Management Studies, Mumbai, INDIA Email id: saurabhgiri1998@gmail.com

### **ABSTRACT**

There are huge risks involved for Banks to provide Loans and due to this there are losses. So as to reduce their capital loss; banks should access and analyse credibility of the individual before sanctioning loan. In the absence of this process there are many chances that this loan may turn in to bad loan in near future. Due to the advanced technology associated with Data mining, data availability and computing power, most banks are renewing their business models and switching to Machine Learning methodology. Credit risk prediction is key to decision-making and transparency. In this review paper, we have discussed classifiers based on Machine and deep learning models on real data in predicting loan default probability. The most important features from various models are selected and then used in the modelling process to test the stability of binary classifiers by comparing their performance on separate data.

**KEYWORDS:** Machine Learning, Credit Risk, Data Mining, Credit Risk Evaluation, Loan Default Prediction

### ISSN: 2319-1422

### 1. INTRODUCTION

With rapid Economic Development, financial markets are maturing; the phenomenon of individuals as financiers to participate in financial markets has become common. The Lending of loans to individuals (personal loans) can be a profitable business if credit risk management and control is done in a precise manner. Individual loan risk management includes three aspects: risk assessment (i.e. assessment of the applicant's repayment ability and credit repayment to decide whether to grant the loan), repayment tracking, breach of contract, in which risk assessment is essential. At present, relevant information based on the applicant and also the relevant rules need to decide whether to grant loans.

Loans can be categorised in two ways they are: Open-ended loans are loans that you can have a loan of more and more. Credit Cards can be considered the example of open-ended loans. As we have a credit limit that we can buy with both of these two types of loans. At any instance when you purchase something, your available credit decreases. Since it is easy and provides you with money, we tend to use it more and more. Closed-ended loans, this type of loan is not called loans once they are repaid. While we make expenditure on closed ended loans, the balance of the loan became downward. As an option, if we want to lend more money, we'd have to make application for other loan. Types of closed-ended loans are auto loans, mortgage loans, and student loans.

Banks need Machine Learning Algorithms in order to predict precisely the extent to which an individual can ask for loan. With Machine Learning Algorithms there are Data mining methods that can combined be used in financial sectors like customer segmentation and profitability, high risk loan applicants, predicting payment default, credit risk analysis, ranking of investments, fraudulent transactions, cash management and forecasting operations, most profitable Credit Card Customers and Cross Selling. There are many different types of loans you have to consider when you're looking to borrow money and it's important to know your options. Loan categorization is the process of evaluation loan collections and assigning loans to groups or grade based on the perceived danger and other related loans properties. The process of continual review and classification of loans enables monitoring the quality of the loan portfolios and to act to counter fall in the credit quality of the portfolios.

### 1.1Data mining in banking

Due to huge growth in data the banking industry deals with, analysis and transformation of the data into useful knowledge has become a task beyond human ability. Data mining techniques can be adopted in solving business problems by finding patterns, associations and correlations which are hidden in the business information stored in the database. By using data mining techniques to analyse patterns and trends, bank executives can predict, with increased accuracy, how customers will react to adjustments in interest rates, which customers are most interested in new product offers, which customers will be at a higher risk for defaulting on a loan, and how to make customer relationships more profitable. Banks focus towards customer retention and fraud prevention. By analysing the past data, data mining can help banks to predict credible customers. Thus, banks can prevent fraud and can also plan for launching different special offers to retain those customers who are credible.



### 2. METHODOLOGY:

Based on reviewing several methodologies for prediction of credit risk through Machine Learning, we have mapped out most important and relevant factors that should be considered while predicting credit risk for loans. The variables can be categorised as below:

**Dependent variable**: We differentiate between capable and incapable customers in by assigning 0 to identify capable customers and 1 to identify incapable customers.

Some variables are defined as independent variables such as:

- 1. Category of Borrower: database is divided into two groups, Such as Individual or group.
- **2.** Borrower's relationship with the bank: Borrower's relationship with the bank in years.
- **3. Borrower's history:** customer default history is known by assigning binary numbers to know whether customer is defaulter or not
- **4. Borrower' sgender:** databases are divided to female and male.
- **5. Amount of loan:** funds provided by the bank to the customer.
- **6. Duration of loan:** Loan duration in Months.
- **7. Loan Supervision:** Loan supervision and monitor through Lender.
- **8. Type of loan:** database is divided into three groups:
- 1. Cash Credit2.Agriculture Loan3.SOD.
- **9. Loan recovery Status:** Loan Recovery Status is divided into five:
- 1. UC-Unclassified 2. SMA-Special Mention Account3. SS-Sub Standard
- 4. DF- Doubtful Loan 5. BL-Bad Loan.
- **10. Interest rates:** It determine amount of bank's profit.
- **11. Type of collateral:** databases are divided in two categories:
  - 1. Physical assets
- 2. Financial assets
- **12. Value of collateral:** Value of Collateral is determined by:
- (i) The linear probability models.
- (ii) The logit models.
- (iii) The probit model(iv) the discriminate analysis model.

### 2.1 ANN Model

An ANN is a mathematical model inspired by biological neural networks. A neural network consists of an interconnected group of artificial neurons, and it processes information using a connectionist approach to computation. In this context, a neuron is the basic computation unit. In these units a series of mathematical operations are developed. Afterwards they decide the next step in the computation pathway depending on the results obtained, which is called the activation function.

Table 1: Variable definitions and measurements			LOAN_ DURA	Loan duration	Scale (month)
Variable	Definition	Measurement	SUPERV	Loan supervision and	Dummy (1, if bank
Dependent	Variable		_LOAN	monitoring by lender	supervised loan, 0 if otherwise)
CUST_S TATUS	good and bad customers	Dummy(1, if customers is Good, 0 if Bad)	TYPE_L OAN	Data samples are divided into Three groups Cash Credit, Agriculture Loan and	Dummy(1, if loan is Cash Credit, 0 if loan is SOD, -1 if loan is Agriculture Loan)
	haracteristics	D (1:0		SOD-Secured Over Draft	
TYPE_B ORR	Type of borrower	Dummy (1, if Individual borrower, 0 if corporate borrower/Company)	RECOV_ STATUS	Loan recovery status (UC-Unclassified, SMA-Special Mention Account,	Dummy(1, if loan is Unclassified, 0.5 if loan is SMA, 0 if loan is Sub Standard,
RELAT_ BORR	Years of relationship with the bank	Scale (year)		SS-Sub Standard, DF- Doubtful Loan and BL-Bad Loan.)	-0.5 if loan is Doubtful, -1 if loan is Bad Loan)
HIST_B	Borrower default	Dummy (1, if	INTT_R	Growth in Interest	Scale(%)
ORR	history	borrower has history	ATE	Rate characteristics	
		of default, 0 if otherwise)	TYPE _COLLA	data samples are divided in two	Dummy(1, if Collateral is physical
GENDE R_BORR	Data samples are divided to female and male according to their gender.	Dummy (1, if borrower is Male, 0 if female)		categories: physical assets like home and property; and financial assets like equity and long term deposit.	assets, 0 if financial assets)
Loan chara	Loan characteristics		VALUE	Value of	Scale (Lac)
LOAN_S IZE	Loan size	Scale (Lac)	_COLLA	collateralized property	- ()

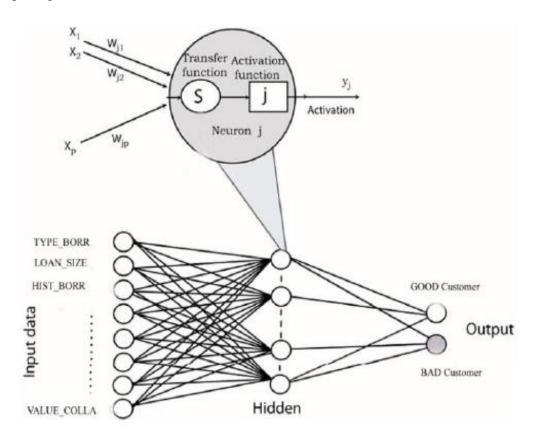
These variables can have a particular value like 0 or 1 depending upon the conditions which are being applied. The values which these variables would attain is mentioned above in Table 1. These variable values are then given as an input to calculate whether the customer is a good customer or a bad customer. For this assessment we can use a Network diagram like ANN (Artificial neural network) model.

It has three primary components: the input data layer, the hidden layer and the output layer.

The input layer receives external inputs that is the data is represented in the input layer.

The hidden layer contains two processes: the weighted summation functions and the transformation function. These functions are used to relate the values from the input data to the output measures.

In **the Output layer**, the output corresponds to the different problem classes. In our example there are two outputs, good or bad Customer.



Architecture of the MLP network (input layer, hidden layer and output layer)

### 2.2 Evaluation of Bank Credit Risk Prediction Accuracy based on SVM and Decision Tree **Models:**

### **Support Vector Machine:**

A support vector machine (SVM) is a special learning technique that analyzes data and isolates patterns applicable to both classification and regression technique. The classification technique is useful for choosing between two or more possible outcomes that depends on continuous predictor variables. Based on data, the SVM algorithm assigns the target data into any one of the given categories. The data is represented as points in space and categories and are represented in both linear and non-linear ways.

The SVM algorithm is used on simple data which focuses on speed and not predicting accurately. Decision Tree Models, are memory-intensive learners and so they are not suitable for large datasets hence we use Cost-Sensitive Credit Risk Prediction as it uses Two-Class Support Vector Machine (assigning numeric values and then converting them into binary values) trained on the replicated training data set which provides the best accuracy.

### **Boosted Decision Tree Model:**

A boosted decision tree is a learning method in which the second tree corrects for the errors of the first tree, the third tree corrects for the errors of the first and second trees, and the procedure continues similarly correcting all the previous errors in each Subsequent Tree.

### **Cost-Sensitive Credit Risk Prediction Experiment:**

The main aim of this experiment is to predict the cost-sensitive credit risk of a credit application using binary classification. The classification problem here is cost-sensitive because the cost of wrongly classifying the positive samples is five times the cost of wrongly classifying the negative samples.

### 4. FUTURE SCOPE:

The purpose of our research review is to automate the banking process of selecting the loan applicants which are not risky for their bank or financial institution. In future, we can develop fullfledged early warning systems based on Machine Learning and that will help a bank or any other financial institution to reduce their losses and increase their profits. We are also trying to reduce the time required to do the predictions so the users can get results in real time, which will improve productivity of the users.

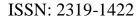
### 5. CONCLUSION:

Machine Learning can help banks in predicting the future of loan and its status and depends on that they can act in initial days of loan. Using Machine Learning banks can reduce the number of bad loans and from incurring sever losses. Using above discussed methodology bank can easily identify the required information from huge amount of data sets and helps in successful loan prediction to reduce the number of bad loan problems. Data Mining and Machine Learning techniques are very useful to the banking sector for better targeting and acquiring new customers, most valuable customer retention, automatic credit approval and marketing

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# SAARJ Journal on Banking & Insurance Research (SJBIR)



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# THE IMPACT OF THE CORPORATE GOVERNANCE ON FIRM PERFORMANCE: A STUDY ON FINANCIAL INSTITUTIONS IN SRI LANKA

Ms. S. Danoshana\*; Ms. T. Ravivathani\*\*

\*Asst. Lecturer,
Department of Finance and Accountancy,
Vavuniya Campus, University of Jaffna SRI LANKA
Email id: danoshanasooriyakumar@yahoo.com

\*\*Asst. Lecturer,
Department of Financial Management,
Faculty of Management Studies &Commerce,
University of Jaffna, SRI LANKA
Email id: travivathani@gmail.com

### **ABSTRACT**

Now corporate governance issues have received wide attention of researchers for more than three decades due to the increasing economic crisis around the world. This research study consider the impact of corporate governance on the performance of listed financial institutions in Sri Lanka as main objective and recommend a suitable corporate governance practices for improving performance of listed financial institutions. To achieve these objectives, the researcher use Return on equity, Return on assets, as the key variables that defined the performance of the firm. On the other hand, Board size, Meeting frequency and audit committee of the company are used as variables to measure the corporate governance. Twenty five listed financial institutions were selected as sample size for the sample period of 2008-2012. The data will be collected by using the secondary sources. According to the analysis, variables of corporate governance significantly impact on firm's performance and board size and audit committee size have positive impact on firm's performance. However, meeting frequency has negatively impact on firm's performance.

**KEYWORDS:** Corporate Governance, Performance, , Sri Lanka

### **INTRODUCTION**

Corporate governance has been generally defined as the system by which companies are directed and controlled. (The Cadbury Committee 1992). Sri Lanka has made a progress of corporate governance toward adoption of code of best practice on corporate governance (2007) with the other OCED countries and the developed world by introducing mandatory corporate governance compliances through the new listing rules (2009). There has been much discussion recently about whether corporate governance makes a difference to the bottom line that is, does good corporate governance improve company performance? A growing number of empirical researches have examined the structure and effectiveness of corporate governance towards company performance mainly in developed nations.

The purpose of this study was to investigate the impact of corporate governance on firm's performance in listed financial institutions in Sri Lanka as a result of after the adoption of corporate governance practices. Reason for the selection of listed financial institution is in Sri Lanka the financial sector has been one of the fastest growing segments of the economy, with the overall growth being manifested in the expansion of the institutional structure and developments in money and capital markets, infrastructure, facilities and products.

Further corporate governance is not something of domestic concern only, but also a matter that warrants international co-operation, especially at this time of economic and financial globalization which are vital for a developing nation like Sri Lanka. These compliances will be normally examined in the companies, which are listed under a Stock Exchange: in Sri Lanka, the Colombo Stock Exchange (CSE). CSE is an economic indicator of the country with a market capitalization of 262 billion rupees (over US \$ 2.7 billion) as at 31st December 2003, which correspond to approximately, 16% of the Gross Domestic Product of the country. Hence it is important to examine through this study relationship between corporate governance and firm performance of listed financial institution in Sri Lanka. Research Question iswhether the corporate governance that has an impact on firm's performance?

### **OBJECTIVES OF THIS STUDY;**

- ♣ To examine the relationship between corporate governance and firm's performance on listed financial institutions in Sri Lanka.
- ♣ To analyze the impact board size, number of board meeting and audit committee size on the listed financial institution.
- ♣ To suggest appropriate level of corporate governance mechanism to improve the firm's performance to the financial institutions

### REVIEW OF LITERATURE

In Sri Lanka number of researchers has done study on corporate governance. Based on that most resent research that conducted by Kumudini Heenetigala in 2011 April, said that corporate governance practices to have a full impact on firm performance, strategies of the board should include CSR initiatives that are in the interest of all stakeholders and are relevant to business performance.

Pavithra Siriwardhane (2008) reported that Board Size and Company Performance is positively related with respect to ROE and also it is found that the contribution of an additional director is

decreased when the board size and company performance is increased. In other words, high performing corporations, which already have a high average board size, do not gain much if an additional board member is joined.

According to the Chitra Sriyani De Silva Loku Waduge research, corporate governance represents institutional structures and incentive mechanisms that are implemented in order to mitigate the principal- agent problem and to thus promote the long-term competitiveness of the firm. Best practice corporate governance emphasizes accountability, transparency, shareholder rights, efficiency, and the performance of the firm.

Brown and Caylor (2006) provide evidence that only one exchange reform (board guidelines are in each proxy statement) is associated with a higher Tobin's Q, a market based measure of firm value, suggesting that regulators did not act as if they enacted corporate-governance related exchange reforms to improve firm performance. Yermack(1996) in his analysis of 452 large US corporations for the period 1984 to 1994 finds that the negative relation between board size and corporation value attenuates as the board become large.

Velnampy.T & Pratheepkanth.P state that there is an impact of corporate governance on ROE and ROA. However the impact of corporate structure on ROE and ROA is higher than the board structure while the impact of board structure on net profit is higher than the corporate reporting. Further the study found a positive relationship between the variables of corporate governance and firm's performance.

### CONCEPTUAL MODEL

Based on the literature following conceptual model is developed by the researcher.

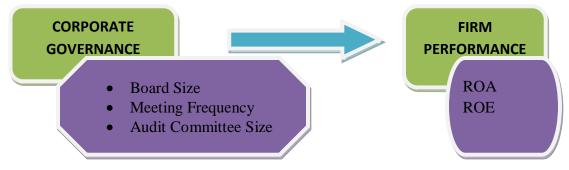


Figure 1: Author Constructed

### HYPOTHESES OF THE STUDY

In this study based on above conceptual framework following hypotheses are formulated to test:

 $\mathbf{H}_0$ : The corporate governance practices have no impact on the firm's performance.

H<sub>1</sub>: The corporate governance practices have an impact on the firm's performance.

 $\mathbf{H}_{1A}$ : The size of the board has a negative impact on firm performance.

 $\mathbf{H}_{\mathrm{IB}}$ : The number of board meeting has a negative impact on firm performance.

 $\mathbf{H}_{1C}$ : The size of audit committee has a positive impact with firm performance.

### **METHODOLOGY**

### **Data Sources and Sampling Design**

To accomplish above mentioned objectives and hypotheses, the data for this study are extracted from audited annual reports of the firm's and the Colombo Stock Exchange publications and website. Listed financial institutions (33 companies in Sri Lanka) are the population for this study. For this analysis cluster sampling method is used. Here all listed financial institutions are divided into four clusters such as banking, financing, leasing and insurance industries. Then 10 companies from banking and 5 companies from financing, leasing and insurance industry is randomly selected as sample (25 companies out of 33 companies) due to the difficulty in accessibility of data.

### **Periods of Study**

In Sri Lanka code of best practices of corporate governance was introduced in 2007. Therefore, this study utilize secondary data that collected over the sample period of five years (2008, 2009, 2010, 2011 and 2012).

### **Mode of Analysis**

In this study, different methods of statistical processing have been applied. SPSS software programmed exclusively applicable to statistical processing is used for processing the data. Here, Correlation, Regression, and descriptive statistics are used to analyze the data. In this study the researcher use Board size, Meeting frequency and audit committee of the company as independent variable and Return on assets and Return on equity are the dependent variable.

### RESULTS AND DISCUSSIONS

### **Descriptive Statistics of the Variables**

TABLE 1: DESCRIPTIVE STATISTICS OF THE VARIABLES

Determinants	Mean	Maximum	Minimum	Std.Dev
BS	9.056000	18	3	2.709910
MF	11.89600	27	4	4.766861
ACS	3.504000	8	2	1.222267
ROE	15.36696	117.4000	-123.2000	24.91752
ROA	5.012000	28.32000	-30.50000	8.607987

Average value of ROE and ROA over the five year periods are 15.37% and 5.01% (nearly 5%) in that order. That demonstrates a not notable performance of the financial in Sri Lanka under study period because minimum ROE and ROA are -123.2 and 8.6 respectively. Mean value of Board Size is 9.05 and which indicates that most of financial institutions have moderate Board Size as 9 or 10. The average value of Meeting Frequency is 11.89 (nearly 12) and which point towards normally board meets at least once a month .But when observing maximum and minimum value of Meeting Frequency, results more deviation between them and very few firms make this deviation as wide. Average value of Audit Committee Size is 3.5 (nearly 4) means that most of financial institutions in Sri Lanka have 3 to 4 members as its audit committee size.

### **Analysis of Significant of Independent Variable**

TABLE 02: ROA AS A DEPENDENT VARIABLE

Variable	Coefficient	Std. Error	t-statistic	Probability
BS	0.488606	0.083557	5.847594	0.0000
MF	-0.27107	0.065234	4.155350	0.0001
ACS	1.356824	0.207289	6.542782	0.0000

TABLE 03: ROE AS A DEPENDENT VARIABLE

Variable	Coefficient	Std. Error	t-statistic	Probability
BS	1.509843	0.242007	6.238849	0.0000
MF	-0.976525	0.184917	-5.280874	0.0000
ACS	3.939413	0.611740	6.439690	0.0000

In order to test the hypotheses, considering the probability of t test of profitability is significant at 5%. In the case of ROA and ROE t test of p-values are 0.0000 < 0.05for Board Size. Coefficients are 0.489 and 1.51 respectively on ROA and ROE. It illustrate that, Board Size has significant positive impact on ROA and ROE of financial institutions. ROA will be increased by 49% and ROE will be increased by 151%, when one board member increases. So Board Size has significantly positive impact on the firm performance of financial institutions in Sri Lanka. Therefore H<sub>1A</sub> is not accepted and it means that increasing board size will result high financial performance because of more knowledge gathering.

Further, in the case of ROA with Meeting Frequency, coefficient is -0.271, test of p-value is 0.0001< 0.05. This result depicts that, Meeting Frequency has a significant negative impact on ROA and an increasing in meeting frequency will reduce the ROA by 27%. Meantime, in the case of ROE, Coefficient is -0.977, test of p-value is 0.0000< 0.05. Significant negative impact relationship exists between Meeting Frequency and ROE and ROE will have 98% negative impact due to the increases in Meeting Frequency. So Meeting Frequency has significant impact on the firm performance of financial institutions. H<sub>1B</sub> is accepted and means that, increasing Meeting Frequency will result poor financial performance, because of increases in cost of management.

Result shows that, a significantly positive impact exists between Audit Committee Size and ROA. Because, in the case of ROA, Coefficient is 1.357, test of p-value is 0.0000< 0.05. It means that, if Audit Committee Size is increased by one member, that will give 137% increases to the ROA. At the same time, in the case of ROE, Coefficient is 3.940, test of p-value is 0.0000< 0.05. It explains that, if Audit Committee Size is increased by one member, that will give 394% increases to the ROA. So Audit Committee Size has significantly positive impact on the firm's performance. Therefore H<sub>1C</sub> is accepted and means that, increasing Audit Committee Size will result high financial performance, because detailed discussion on the financial statement of the companies will lead to get more ideas regarding the reports and it will guide to increase the firm's performance.

Based on the results, that researcher found, there is a significant relationship between the corporate governance mechanism and firm performance. Meanwhile, Board Size, Meeting Frequency and

Audit Committee Size have significant impact on the performance of financial institution in Si Lanka. Increases in Board Sizeand Audit Committee Size give positive impact to the firm's financial performance and Meeting Frequency negative impact. So H<sub>0</sub> is rejected and H<sub>1</sub> is not rejected.

### CONCLUSION AND RECOMMENDATION

This study examined the whether the corporate governance factors have any significant impact on the firm performance of financial institutions in Sri Lanka after the adoption of corporate governance best practices.

On the basis of findings, it is documented that corporate governance practices of Board Size, Meeting Frequency and Audit Committee Size have significant impact on firm performance and Board Size and Audit Committee are positively related with firm's performance but Meeting Frequency has negative relation. Further, researcher can conclude that, corporate governance can be improved in Sri Lanka by companies maintain their board size to nine directors, meetings to once a month and audit committees to four members.

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