


“Growth of Islamic banking in India: discriminant analysis approach”

AUTHORS	Desti Kannaiah Yaaseen Masvood Y. Lokesh Choudary
ARTICLE INFO	Desti Kannaiah, Yaaseen Masvood and Y. Lokesh Choudary (2017). Growth of Islamic banking in India: discriminant analysis approach. <i>Banks and Bank Systems</i> , 12(4), 175-188. doi: 10.21511/bbs.12(4-1).2017.06
DOI	http://dx.doi.org/10.21511/bbs.12(4-1).2017.06
RELEASED ON	Tuesday, 19 December 2017
RECEIVED ON	Thursday, 26 January 2017
ACCEPTED ON	Thursday, 07 December 2017
LICENSE	 This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License
JOURNAL	"Banks and Bank Systems"
ISSN PRINT	1816-7403
ISSN ONLINE	1991-7074
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

25



NUMBER OF FIGURES

0



NUMBER OF TABLES

17

© The author(s) 2025. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10, Sumy,
40022, Ukraine

www.businessperspectives.org

Received on: 26th of January, 2017

Accepted on: 7th of December, 2017

© Desti Kannaiah, Yaaseen Maswood,
Y. Lokesh Choudary, 2017

Desti Kannaiah, Dr., Senior Lecturer,
James Cook University, Singapore.

Yaaseen Maswood, Dr., Assistant
Professor, Faculty of Management
Studies, SRM University, Chennai,
India.

Y. Lokesh Choudary, Dr., Assistant
Professor, Department of Commerce,
Government Arts College,
Nandanam, Chennai, India.



This is an Open Access article,
distributed under the terms of the
[Creative Commons Attribution-Non-Commercial 4.0 International license](https://creativecommons.org/licenses/by-nc/4.0/),
which permits re-use, distribution,
and reproduction, provided the
materials aren't used for commercial
purposes and the original work is
properly cited.

Desti Kannaiah (Singapore), Yaaseen Maswood (India), Y. Lokesh Choudary (India)

GROWTH OF ISLAMIC BANKING IN INDIA: DISCRIMINANT ANALYSIS APPROACH

Abstract

Islamic finance presents a new avenue as a novel alternative to the conventional financial set-up in this country. The purpose of this study is to find out the prospects of Islamic banking in India. The objectives of this study have been met by conducting a survey to elicit the responses from retail customers of both private and public sector banks in four cities of South India. The survey was carried out among both Muslims and non-Muslims to find out about the awareness levels, patronage, motivation and perception towards Islamic banking in India. The results reveal that the respondents have a favorable perception towards Islamic banking, especially from the city of Hyderabad, since it has got a lot of institutions that run courses on Islamic banking.

In the current study, it is found that Islamic banking is having low level of awareness among the respondents. However, the attitude towards adoption of Islamic Banking seems encouraging, as reflected in the study. The findings of this research gain significance due to the fact that this sample represents a segment of the entire population of South India and thus, acts as a pre-cursor to a detailed study involving various other such demographic denominations. The future directions for this research could be carried out by drawing such clusters across the rest of the country. This may help to understand and get a better and broader perspective of the need for Islamic banking and hence, its prospects in India.

Keywords

financial inclusion, foreign remittances, patronage, bank selection, perception, Islamic banking

JEL Classification G21

INTRODUCTION

Islamic banking is any banking activity of a financial institution which operates on the basis of and according to the principles of Islamic law (i.e. "Shariah"). Islamic finance is any finance activity which is carried out within the stipulated principles of Islamic law. The two basic and fundamental sources of Islamic law are the Quran, the holy Book of Muslims and the Sunnah, the Traditions of Prophet Muhammad (Peace and Blessings of Allah be upon Him). In Islam, money is not recognized as a subject-matter of trade, except for some special cases. The last Prophet of Islam, Muhammad (Peace Be Upon Him), was the first to start the principles of Islamic finance, when he started doing his business as a silent partner (Musharakah) with his beloved wife, who was a rich lady and had been earlier widowed twice. He also permitted people to use sale on credit without interest (i.e. "salam") and he encouraged Muslims to give benevolent loans (i.e. "Qard Hasana"). Also, the revelations of the verses Quran clearly prohibited dealing in interest and indulging in gambling. It is from here onwards, the earliest principles of Islamic finance were formulated.

The earliest instances of Islamic banking can be traced back to the time when the Prophet Muhammad (Peace be upon him), himself acted as a trading partner with his wife, who was already a wealthy and a rich business widow at the time of his marriage with her. He used to take her merchandise from Makkah to Syria and bring in rich profits due to his high levels of integrity and business acumen. However, the commencement of the formal Islamic banking system was with the advent of Mit Ghamr Savings Bank in Egypt as early as 1963. It was only during the mid-seventies that the first private commercial bank was established in Dubai. The establishment of regulatory bodies such as Accounting and Auditing Organization for Islamic financial institutions (AAOIFI) in the 1990s and Islamic Financial Services Board (IFSB) in 2002 to oversee the standardization of the banking practices of Islamic methods of finance has also contributed to the growth of Islamic financial institutions across the globe.

The current banking laws in India prohibit the banks from engaging in business ventures with the money from the depositors and hence Islamic banking cannot become operational, as this is the basic method of getting assets in Islamic banks. Thus, this is a bottleneck for the implementation of Islamic banks in India and, therefore, Islamic finance has been a distant dream for the millions of Muslims across this nation so far, due to existing legal and regulatory framework.

In 2005, the Reserve Bank of India set up a commission to study the feasibility of introducing Islamic banking in the country. The Committee had negated the possibility of the introduction of the system with the claim that the existing rules and regulations do not permit it. The Raghuram Rajan Committee, which was set up in 2007, to look into the reforms of the financial sector in India, recommended that measures be taken to permit the delivery of interest-free finance on a large scale including through the banking system and that it was in consonance with the objectives of inclusion and growth through innovation. The perception about Islamic banking in India was greatly changed by these recommendations and paved the way for Shariah-compliant non-banking financial companies.

1. LITERATURE REVIEW

Although the concept and practice of Islamic finance has been in vogue as early as the time of Prophet Muhammad (Peace and Blessings of Allah be upon him), the first formal Islamic banking transaction was conducted in Mit Ghamr in Egypt as late as in 1963 only. Islamic Banking is a banking activity carried out based on the principles laid out in Shariah, i.e. the laws of Islamic jurisprudence. Since Muslims cannot receive or pay interest, they are unable to conduct business with conventional banks. Gerrard and Cunningham (1997), Chapra and Khan (2000) highlighted the need to establish an institution that would help to set regulatory standards and a framework for supervision of Islamic financial institutions. Bagsiraj (2003) in his project, "Islamic financial institution of India: Progress, Problems and Prospects", stated that in India there are about 300 Islamic financial institutions but very little is known about their functioning, socio-economic performance and potential.

Vasu (2005), while discussing the future of Islamic banking and finance in India, discussed the interest free mechanism as an essential feature of the Islamic finance. Rustam et al. (2011) examined the perception of corporate customers towards Islamic banking products and services by using a random sample of 60 corporate customers of six Pakistani Islamic banks and found that the Islamic banking products and services have a good potential within the Pakistani corporate sector. In this study, which involved only Muslims as respondents, 55% indicated their willingness on introduction of Islamic banking system as a replacement to conventional banking system.

In an exploratory research among 103 expatriate workers in Saudi Arabia, of whom majority were Indians, the perception of non-Muslims towards Islamic banking, was studied by Hidayat and Al-Bawardi (2012). In the Indian context, a few studies have been done in this regard. A study by Amin (2012) using a non-probability sampling of 100 respondents from the district of Ahmedabad, Gujarat showed that Gujarati Muslims are not inclined to-

wards following the principles of Shariah while investing. Another study carried out by Muniswamy et al. (2013) among 150 teachers from 10 colleges in Chennai city, revealed that significant difference exists between Muslims and non-Muslims in their willingness to accept Islamic finance.

Khattak and Kashif-Ur-Rehman (2010) investigated the relationship between different demographic variables and the satisfaction and awareness of the customers of the Islamic banking industry by taking a sample of 156 respondents from different cities in Pakistan. Haque (2010) conducted a face-to-face interview of 473 Malaysian customers to study the attitudinal difference of Malaysian customers about Islamic banking and found Malaysian consumers have positive attitude towards Islamic banking and a significant attitudinal difference exists only between Malay & Chinese and between Chinese & Indian, while the overall attitudes of all three races were positive towards Islamic banking. Results of this study also revealed that there are attitudinal differences between males and females.

Haron et al. (1994) surveyed 301 Muslim and non-Muslim commercial bank customers in Malaysia to study their bank patronage factors by collecting data through self-administered questionnaire. Khoirunissa (2003) studied the factors motivating consumers' preference towards saving in Islamic banking by using a purposive sampling of 95 respondents from two Islamic banks in Indonesia. Turkey is a Muslim country with many Islamic financial institutions. In Turkey, customer satisfaction of interest-free banking and bank selection criteria was analyzed by Okumus (2005).

2. METHODOLOGY

2.1. Research gap and problem

Based on the foregone review of literature, it becomes clear that there has been no formal studies conducted to study the patronage behavior of Indians towards Islamic banking, involving both Muslim and non-Muslim retail customers of banks in India. Therefore, this pioneering research is an effort to fill this gap and is carried out to examine the prospects of Islamic banking in India by studying the awareness levels, patronage

factors, perception of the benefits and motivation towards Islamic banking. This study was undertaken to address the following research questions.

- What is the level of awareness of the respondents about Islamic banking and finance?
- What are the main factors that motivate and influence the attitude of the respondents towards the prospects of Islamic banking?
- What is the perception of the respondents towards the future possibility of providing Islamic methods of finance?

2.2. Research objectives

The following objectives were framed in order to get answers to the above questions.

- To examine the level of awareness of the terminologies of Islamic banking and methods of finance among the retail customers of banks in India and its impact on the prospects of Islamic banking.
- To determine the effect of demographic and socio-economic profiles of the respondents on the prospects of Islamic banking.
- To identify the main factors that would motivate and influence the attitude of the respondents towards prospects of Islamic banking.
- To analyze the perception of the retail customers of conventional banks towards the future possibility of providing Islamic methods of finance.

2.3. Research hypotheses

- There is no significant difference between the demographic variables of the respondents and perceptions of male and female with regard to the general perception and awareness of Islamic banking.
- There is no significant difference between those who practice Islamic methods of finance and those who do not with regard to the general perceptions, awareness and patronage towards Islamic banking.

2.4. Sample area and profile of the respondents

For the purpose of this study, four major cities from South India were chosen. These four cities were Chennai, Mallappuram, Bangalore and Hyderabad. The retail customers of both private and public sector banks in these four cities formed the sample for this study. The reason why these cities were chosen is two-fold. Firstly, it was because these four cities have a very large population of Muslims in these states. Secondly, a large part of this population has people in their families working abroad, especially in the Gulf region. This results in a very large percentage of foreign remittances from these cities.

2.5. Sampling method and size

For the purpose of this study, the sampling technique used is convenience sampling. The sample size was determined by using the scientific method by using the standard deviation obtained from the pilot study of the sample of 50 respondents, by allowing the standard error at 5% level. After determining the sample size based on the pilot study, the sample size was fixed at 680. For scrutiny of the sample, incomplete and dual entry questionnaires were removed and for the analysis, 687 questionnaires were considered suitable for analysis and discussion.

2.6. Data collection instrument

The data for this study were obtained through a survey questionnaire, which was designed keeping in mind the research objectives outlined earlier. The questionnaire was structured with seven sections and the responses were sought on a five-point Likert's scale, ranging from "Highly aware" to "Not at all aware" or from "Strongly agree" to "Strongly disagree" for all the sections except the first one. The various variables for the bank selection criteria were determined from a previous study carried out by Erol and El-Bdour (1989), Erol et al. (1990). Also, while exercising the bank selection criteria for Islamic banks, the religious issue was also considered important (Haron et al., 1994; Metawa & Almossawi, 1998).

2.7. Pilot study

A pilot study was initially conducted at Chennai with 50 respondents during April 2014 to test the validity and reliability of the questionnaire. The validity and reliability of all the variables were found to be good enough to carry out the full-fledged study.

2.8. Limitations of the study

- The study is confined to the four cities of South India and so the findings of the study should be placed in proper perspective for application elsewhere.
- The study is based on the current provisions in Banking Regulations Act and a more broad-based study would be needed to determine on the line of amendments in BRA.

3. RESULTS AND DISCUSSION

Inferential statistics is used to study the patronage levels of Islamic banking among the respondents and to find out their perception about and the level of motivation towards adopting Islamic banking practices. This is carried out using tools like regression, factor analysis, and discriminant analysis.

3.1. Data analysis using regression

Regression is the determination of statistical relationship between two or more variables. In simple regression two variables are used. One variable (independent) is the cause of the behavior of another one (dependent). When there are more than two independent variables the analysis concerning relationship is known as multiple correlations and the equation describing such relationship is called as the multiple regression equation. It is thus designed to examine the relationship of a variable Y to a set of other variables $X_1, X_2, X_3 \dots X_n$. The most commonly used linear equation is $Y = b_1 \cdot X_1 + b_2 \cdot X_2 + \dots + b_n \cdot X_n + b_0$,

where Y is the dependent variable, which is to be found; $X_1, X_2, X_3 \dots X_n$ are the known vari-

ables with which predictions are to be made; and $b_1, b_2, b_3 \dots b_n$ are coefficients of the variables.

In this study, the dependent variable is attitude and potential patronage towards Islamic banking (b) and the independent variables are: bottlenecks for implementation, awareness of terminologies of Islamic methods of finance, attractiveness, awareness, awareness of terminologies of Islamic banking, religious reasons, reputation, products and services, cost/benefit, motivation, vicinity/ease of access, perception (a) and are discussed as follows.

Table 1. Model summary

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.688(a)	0.473	0.464	4.586

The multiple correlation coefficient of 0.688 measures the degree of relationship between the actual values and the predicted values of the adjustment. Because the predicted values are obtained

as a linear combination of awareness of terminologies of Islamic banking (X_1), awareness of Islamic methods of finance (X_2), awareness (X_3), religious reasons (X_4), products and services (X_5), vicinity/ease of access (X_6), attractiveness (X_7), reputation (X_8), cost/benefit (X_9), perception (X_{10}), motivation (X_{11}), bottlenecks for implementation (X_{12}), the coefficient value of 0.688 indicates that the relationship between adjustment and the twelve independent variables is quite strong and positive.

The coefficient of determination R-square measures the goodness-of-fit of the estimated Sample Regression Plane (SRP) in terms of the proportion of the variation in the dependent variables explained by the fitted sample regression equation. Thus, the value of R square is 0.473 simply means that about 47% of the variation in adjustment is explained by the estimated SRP that uses awareness of terminologies of Islamic banking (X_1), awareness of Islamic methods of finance (X_2), awareness (X_3), religious reasons (X_4), products and services

Table 2. ANOVA

	Sum of squares	df	Mean square	F-value	P-value
Regression	12724.337	12	1060.361	50.413	0.000(a)
Residual	14176.583	674	21.034	–	–
Total	26900.920	686	–	–	–

Note: a – Predictors: Constant, bottlenecks for implementation, awareness of terminologies of Islamic methods of finance, attractiveness, awareness, awareness of terminologies of Islamic banking, religious reasons, reputation, products and services, cost/benefit, motivation, vicinity/ease of access, perception. b – Dependent variable: attitude and potential patronage on Islamic banking.

Table 3. Coefficients (a)

Variables	Unstandardized coefficients		Standardized coefficients	t-value	P-value
	B	Std. error	Beta		
Constant	1.728	1.041	–	1.659	0.098 NS
Awareness of terminologies of Islamic banking	0.213	0.042	0.174	5.046	0.000**
Awareness of terminologies of Islamic methods of finance	0.067	0.021	0.105	3.201	0.001**
Awareness	0.230	0.042	0.185	5.406	0.000**
Religious reasons	0.075	0.050	0.053	1.521	0.129 NS
Products and services	0.184	0.040	0.186	4.616	0.000**
Vicinity/ease of access	–0.167	0.046	–0.161	–3.598	0.000**
Attractiveness	–0.015	0.059	–0.010	–0.255	0.799 NS
Reputation	0.063	0.080	0.031	0.787	0.432 NS
Cost/benefit	0.113	0.048	0.095	2.372	0.018*
Perception	0.049	0.065	0.038	0.761	0.447 NS
Motivation	0.190	0.050	0.185	3.807	0.000**
Bottlenecks for implementation	0.092	0.058	0.067	1.603	0.109 NS

(X_5), vicinity/ease of access (X_6), attractiveness (X_7), reputation (X_8), cost/benefit (X_9), perception (X_{10}), motivation (X_{11}), bottlenecks for implementation (X_{12}), as the independent variables and R square value is significant at 1% level for X_1 , X_2 , X_3 , X_5 , X_6 and X_{11} ; 5% level of significance for X_9 and not significant for the variables X_4 , X_7 , X_8 , X_{10} and X_{12} , respectively.

The multiple regression equation is

$$Y = 17.28 + 0.213 \cdot X_1 + 0.067 \cdot X_2 + 0.230 \cdot X_3 + 0.075 \cdot X_4 + 0.184 \cdot X_5 - 0.167 \cdot X_6 - 0.015 \cdot X_7 + 0.063 \cdot X_8 + 0.113 \cdot X_9 + 0.049 \cdot X_{10} + 0.190 \cdot X_{11} + 0.092 \cdot X_{12},$$

where the coefficients of X_1 , X_2 , X_3 , X_5 , X_6 , X_7 are 0.213, 0.067, 0.230, 0.184, -0.167, 0.015, respectively, and they represent the highly significant impact on attitude and potential patronage towards Islamic banking as constant. The estimated positive sign implies that adjustment score would give a cumulative increase by 0.213 for every unit increase in attitude and potential patronage towards Islamic banking and the coefficient value is highly significant at 1% level. Similarly for the independent variables X_9 , moderate level of impact is observed with coefficient values at 5% level of significance.

On the other hand, it is noted that for the independent variables X_4 , X_7 , X_8 , X_{10} and X_{12} represents partial effect on the attitude and potential patronage towards Islamic banking and is not significant at 5% level of significance.

3.2. Data analysis using factor analysis

Grouping the variables gives more clarity both on the subject and on the decision mechanism design. In view of this, researchers grouped the items into different groups using Principal component analysis with Varimax and Kaiser normalization. This part of the research is aimed at grouping the "Products and services" and "Vicinity" of Islamic banking as one of the variables in patronage factors. The results of the analysis are presented below.

The products and services, vicinity/ease of access and attractiveness as patronage factors on Islamic banking variables factors consist of 17 variables. Therefore, the data reduction is done through the application of factor analysis by principal component method and the following results are obtained.

Table 4. KMO and Bartlett's test for products and services, ease of access and attractiveness as patronage factors in Islamic bank selection criteria

Kaiser – Meyer – Olkin measure of sampling adequacy		0.936
Bartlett's test of sphericity	Approx. chi-square	7704.065
	Df	136
	Sig.	0.000**

It is found from Table 4 that KMO measure of sampling adequacy is 0.936, Bartlett's test of sphericity with approximate chi-square value 7704.065 and $P = 0.000$ are statistically significant at 5% level which implies that the sample size is adequate to ascertain the motivating factor and this leads to the variance verification for all 17 variables.

It is found from Table 5 that the 17 variables exhibit the variables from 0.618 to 0.798. This implies the range of variations defined between 61% to 79% is adequate for factor segmentation from the variables. This leads to the factor formation as stated in the table below.

It is found from Table 7 that the 11 variables are reduced to three predominant factors. It is also found that the 17 variables exhibit the total variance of 65.385%. It is also ascertained that the three factors individually possess the variances of 27.684%, 24.848% and 16.311%. This leads to the variable loadings for each factor of products and service, ease of access and attractiveness as patronage factors on Islamic banking.

The prime factors considered during the selection of Islamic banking system by the customers in the market have emerged as three factors, namely: easy of access to the branches; attractiveness in terms of the interiors and the hours of operation and products; services in terms of wide range of offerings, locker services and assistance in terms

Table 5. Communalities for service quality, ease of access and attractiveness as patronage factors in Islamic bank selection criteria

	Initial	Extraction
I will invest my money in Islamic bank only if it provides fast and efficient services	1.000	0.629
I will invest my money in Islamic bank if it provides a wide range of products and services	1.000	0.725
I will invest my money in Islamic bank if it provides locker services	1.000	0.618
I will invest my money in Islamic bank if it involves least documentation process	1.000	0.658
I will invest my money in Islamic bank if it provides financial planning assistance and financial counseling	1.000	0.700
I will invest my money in Islamic bank if its personnel are friendly and courteous	1.000	0.686
I will invest my money in Islamic banks if there is speed of processing items	1.000	0.678
I will invest my money in Islamic bank if it is near to my home/workplace	1.000	0.549
I will invest my money in Islamic bank if it provides wide electronic communication system like internet banking and SMS alerts	1.000	0.701
I will invest my money in Islamic banks if there is availability of enough parking space nearby it	1.000	0.685
I will invest my money in Islamic banks if there is an extensive branch network	1.000	0.798
I will invest my money in Islamic banks if there is an extensive ATM network	1.000	0.766
I will invest my money in Islamic banks if there is access to public transport	1.000	0.711
I will invest my money in Islamic bank only if the external appearance of the bank is good	1.000	0.793
I will invest my money in Islamic bank if it has got different partitions of counters for the various services	1.000	0.621
I will do business with an Islamic bank if its hours of operation are attractive	1.000	0.627
I will invest my money in Islamic banks if the interiors are good	1.000	0.758

Note: Extraction method: Principal component analysis.

Table 6. Total variance explained for service quality, ease of access and attractiveness as patronage factors in Islamic bank selection criteria

Component	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	8.277	48.687	48.687	8.277	48.687	48.687	4.706	27.684	27.684
2	2.191	12.886	61.573	2.191	12.886	61.573	4.224	24.848	52.532
3	1.236	7.270	68.843	1.236	7.270	68.843	2.773	16.311	68.843
4	0.651	3.827	72.670	–	–	–	–	–	–
5	0.617	3.631	76.301	–	–	–	–	–	–
6	0.508	2.991	79.292	–	–	–	–	–	–
7	0.437	2.568	81.860	–	–	–	–	–	–
8	0.425	2.503	84.362	–	–	–	–	–	–
9	0.402	2.364	86.727	–	–	–	–	–	–
10	0.370	2.174	88.900	–	–	–	–	–	–
11	0.340	1.998	90.899	–	–	–	–	–	–
12	0.308	1.809	92.708	–	–	–	–	–	–
13	0.295	1.735	94.443	–	–	–	–	–	–
14	0.267	1.569	96.012	–	–	–	–	–	–
15	0.239	1.407	97.418	–	–	–	–	–	–
16	0.231	1.358	98.776	–	–	–	–	–	–
17	0.208	1.224	100.00	–	–	–	–	–	–

Note: Extraction method: Principal component analysis.

Table 7. Rotated component matrix (a) for service quality, ease of access and attractiveness as patronage factors in Islamic bank selection criteria

	Component			Factor name
	1	2	3	
Q19.2	0.822	0.172	0.142	Products and service factor
Q19.7	0.782	0.254	0.038	
Q19.5	0.777	0.294	0.103	
Q19.6	0.773	0.288	0.072	
Q19.1	0.758	0.219	0.080	
Q19.3	0.754	0.155	0.158	
Q19.4	0.714	0.241	0.299	
Q20.5	0.267	0.827	0.102	Access factor
Q20.4	0.300	0.827	0.157	
Q20.6	0.261	0.777	0.198	
Q20.2	0.317	0.738	0.236	
Q20.3	0.205	0.723	0.347	
Q20.1	0.231	0.569	0.416	Attractiveness factor
Q21.1	0.056	0.205	0.865	
Q21.4	0.096	0.127	0.856	
Q21.3	0.257	0.422	0.619	
Q21.2	0.246	0.482	0.573	

Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser Normalization. a – Rotation converged in six iterations.

of financial planning and friendliness of the personnel. The same factors have emerged in the previous studies on banking selection criteria. Hence, the Islamic banking is no different in terms of the requirements of the customers.

3.3. Data analysis using discriminant analysis

Discriminant analysis is used to distinguish among the various religions on the basis of the perceptions about and prospects of Islamic banking in India. The general perceptions on Islamic banking, awareness of the terminologies of Islamic banking and the awareness of terminologies on Islamic methods of finance are categorized to assess the prospects of Islamic banking in the sample area. Similarly, for the purpose of banking selection criteria, 10 factors are assessed and the level of importance for each considered by the respondents while exercising the choice of bank is measured. The tests of equality of group means measure each independent variable's potential before the model is created. Wilks' lambda, F statistic and its significance level are presented in Table 8.

It has been observed that the dimensions such as: perceptions on Islamic banking, awareness of terminologies of Islamic banking, awareness of terminologies of Islamic methods of finance, awareness, religious reasons, products and services, vicinity/ease of access, attractiveness, reputation, cost/benefit, perception, motivation and bottlenecks for implementation have higher impact on prospects of Islamic banking in India at 0.05 significance levels. Arrived value of Wilks' lambda is significant to test the discriminant model, and if the F-test shows significance at 0.05 confidence levels, then the individual independent variables are assessed to see which differ significantly in mean by group and these are used to classify the dependent variable.

The ranks and natural logarithms of determinants printed are those of the group covariance matrices. In ANOVA, an assumption is that the variances were equivalent for each group but in discriminant analysis the basic assumption is that the variance-co-variance matrices are equivalent. Box's M tests the null hypothesis that the covariance matrices do not differ between groups formed by the de-

Table 8. Discriminant analysis of different dimensions with respect to prospects of Islamic banking in India

Dimensions	Wilks' lambda	F-value	P-value
General perceptions on Islamic banking	0.850	60.380	0.000**
Awareness of terminologies of Islamic banking	0.709	140.060	0.000**
Awareness of terminologies of Islamic methods of finance	0.948	18.669	0.000**
Awareness	0.904	36.311	0.000**
Religious reasons	0.872	50.357	0.000**
Products and services	0.947	19.122	0.000**
Vicinity/ease of access	0.983	5.784	0.003**
Attractiveness	0.967	11.778	0.000**
Reputation	0.942	21.066	0.000**
Cost/benefit	0.944	20.108	0.000**
Perception	0.865	53.548	0.000**
Motivation	0.845	62.661	0.000**
Bottlenecks for implementation	0.881	46.070	0.000**

Table 9. Box's test of equality of covariance matrices along with log determinants

Religion	Rank	Log determinant	Box's M value	F-value	P-value
Muslim	13	35.680	601.185	3.041	0.000**
Christian	13	35.165			
Hindu	13	35.797			
Pooled within groups	13	36.558			

pendent variable. The log determinant is not significant so that the null hypothesis that the groups do not differ can be retained. The log determinants appear similar and Box's M is 601.185 with $F = 3.041$ which is significant at $p < 0.000$ (Table 9).

The canonical correlation is the multiple correlation between the predictors and the discriminant function. With only one function it provides an index of overall model fit which is interpreted as being the proportion of variance explained (R^2). Arrived canonical correlation of 0.596 and 0.130 suggests the model explains variation in the grouping variable.

Wilks' lambda indicates the significance of the discriminant function. The above indicates the first test function, a highly significant function ($p < 0.000$) and provides the proportion of total variability not explained, i.e. it is the converse of the squared canonical correlation. So we have 63.4% unexplained. It also indicates the second test function, not significant function ($p > 0.000$) and provides the proportion of total variability explained, it is the converse of the squared canonical correlation. So we have 98.3% explained.

The interpretation of the discriminant coefficients (or weights) is like that in multiple regression. Table 12 provides an index of the importance of

Table 10. Eigenvalues

Function	Eigenvalue	% of variance	Cumulative %	Canonical correlation
1	0.550(a)	97.0	97.0	0.596
2	0.017(a)	3.0	100.0	0.130

Note: First two canonical discriminant functions were used in the analysis.

Table 11. Wilks' lambda

Test of function(s)	Wilks' lambda	Chi-square	Df	Sig.
1 through 2	0.634	308.510	26.0	0.000
2	0.983	11.534	12.0	0.484

Table 12. Standardized canonical discriminant function coefficients

Classification different dimensions	Function	
	1	2
Perceptions on Islamic banking	0.127	-0.042
Awareness of terminologies of Islamic banking	0.742	0.141
Awareness of terminologies of Islamic methods of finance	-0.077	0.274
Awareness	0.129	0.212
Religious reasons	0.214	0.326
Products and services	-0.037	0.808
Vicinity/ease of access	-0.100	0.018
Attractiveness	0.215	-0.612
Reputation	0.009	0.242
Cost/benefit	-0.006	-0.089
Perception	0.014	-0.083
Motivation	0.186	-0.875
Bottlenecks for implementation.	0.012	-0.123

each predictor like the standardized regression coefficients (beta's) did in multiple regression.

Function 1

The sign indicates the direction of the relationship. The following dimensions score was the strongest predictor while high prospects of Islamic banking in India importance as a predictor.

- Perceptions on Islamic banking
- Awareness of terminologies of Islamic banking
- Awareness
- Religious reasons
- Attractiveness
- Reputation
- Perception
- Motivation
- Bottlenecks for implementation

The above variables with large coefficients stand out as those that strongly predict allocation to the prospects of Islamic banking in India.

Function 2

The sign indicates the direction of the relationship. The following dimensions score was the strongest predictor, while high prospects of Islamic banking in India importance as a predictor.

- Awareness of terminologies of Islamic banking
- Awareness of terminologies of Islamic methods of finance
- Awareness
- Religious reasons
- Products and services
- Vicinity/ease of access
- Reputation

Table 13. Structure matrix

Dimensions	Function	
	1	2
Awareness of terminologies of Islamic banking	0.863(*)	0.179
Motivation	0.572(*)	-0.443
General perceptions on Islamic banking	0.567(*)	0.024
Perception	0.532(*)	-0.215
Religious reasons	0.517(*)	0.114
Bottlenecks for implementation	0.495(*)	-0.119
Awareness	0.439(*)	0.140
Reputation	0.335(*)	-0.024
Cost/Benefit	0.327(*)	-0.052
Products and services	0.315(*)	0.298
Awareness of terminologies of Islamic methods of finance	0.312(*)	0.240
Vicinity/Ease of access	0.175(*)	-0.026
Attractiveness	0.245	-0.302(*)

Table 14. Canonical discriminant function coefficients

Dimensions	Function	
	1	2
General perceptions on Islamic banking	0.022	−0.007
Awareness of terminologies of Islamic banking	0.172	0.033
Awareness of terminologies of Islamic methods of finance	−0.008	0.029
Awareness	0.027	0.044
Religious reasons	0.052	0.079
Products and services	−0.006	0.131
Vicinity/ease of access	−0.017	0.003
Attractiveness	0.054	−0.153
Reputation	0.003	0.081
Cost/benefit	−0.001	−0.017
Perception	0.003	−0.018
Motivation	0.033	−0.156
Bottlenecks for implementation	0.003	−0.029
Constant	−5.031	0.061

The above variables with large coefficients stand out as those that strongly predict allocation to the prospects of Islamic banking in India.

Function 1

$D = (0.022)$ general perceptions on Islamic banking + (0.172) awareness of terminologies of Islamic banking + (-0.008) awareness of terminologies of Islamic methods of finance + (0.027) awareness + (0.052) religious reasons + (-0.006) products and services + (-0.017) vicinity/ease of access + (0.054) attractiveness + (0.003) reputation + (-0.001) cost/benefit + (0.003) perception + (0.033) motivation + (0.003) bottlenecks for implementation – (-5.031)

Function 2

$D = (-0.007)$ general perceptions on Islamic banking + (0.033) awareness of terminologies of Islamic banking + (0.029) awareness of terminologies of Islamic methods of finance + (0.044) awareness

+ (0.079) religious reasons + (0.131) products and services + (0.003) vicinity/ease of access + (-0.153) attractiveness + (0.081) reputation + (-0.017) cost/benefit + (-0.018) perception + (-0.156) motivation + (-0.029) bottlenecks for implementation – (0.061)

Group centroids table inferred that, the respondents belonging to Muslim religion have a mean of 0.480 and 0.006, while Christian and Hindu have a mean of −0.936, −0.506, −1.183 and 0.102, respectively. Cases with scores near to a centroid are predicted as belonging to the Muslim religion group (see Table 15).

The classification results reveal that 68.9% of respondents were classified correctly into predicted group membership. This overall predictive accuracy of the discriminant function is called the “hit ratio”. Muslim religion respondents were classified with slightly better accuracy (77.4%) than Hindu and Christian (49.1% and 46.2%, respectively) (see Table 17).

Table 15. Functions at group centroids

Religion	Function	
	1	2
Muslim	0.480	0.006
Christian	−0.936	−0.506
Hindu	−1.183	0.102

Table 16. Classification of different dimensions with respect to religion

Classification of different dimensions with respect to religion	Religion		
	Muslim	Christian	Hindu
General perceptions on Islamic banking	0.133	0.106	0.096
Awareness of terminologies of Islamic banking	0.353	0.094	0.071
Awareness of terminologies of Islamic methods of finance	0.059	0.056	0.075
Awareness	0.616	0.555	0.575
Religious reasons	0.223	0.109	0.144
Products and services	0.082	0.023	0.105
Vicinity/ease of access	0.076	0.098	0.104
Attractiveness	0.318	0.320	0.214
Reputation	0.082	0.036	0.085
Cost/benefit	0.174	0.185	0.174
Perception	-0.102	-0.097	-0.109
Motivation	0.310	0.343	0.240
Bottlenecks for implementation	0.062	0.072	0.054
Constant	-25.321	-18.682	-17.542

Table 17. Classification results (a)

	Religion		Predicted group membership			Total
			Muslim	Christian	Hindu	
	Count					
Original	Count	Muslim	374	57	52	483
		Christian	11	18	10	39
		Hindu	32	52	81	165
	%	Muslim	77.4	11.8	10.8	100.0
		Christian	28.2	46.2	25.6	100.0
		Hindu	19.4	31.5	49.1	100.0

SUGGESTIONS, CONCLUSION AND FUTURE RESEARCH

Suggestions and conclusion

Although Islamic banks can offer many benefits, it has to be tangibly felt by at least a few so that others could adopt the same. In order for this to happen, a lot of promotional activities need to be undertaken to create awareness among the masses. In order to attract potential customers to its fold, it needs to have in place the state-of-the-art IT infrastructure not only to reach out to the customers but also to giving the customers the comfort of doing banking operations without commuting to the banking premises. Islamic banks are regulated by both the Central bank and “Shariah” Board. The present regulatory framework in India does not permit the functioning of a full-fledged Islamic bank in the current scenario.

Islamic banking presents a window of opportunity to a country like India, where a significant percentage of the population is still unbanked due to the religious prohibitions of the conventional banking systems. Therefore, Islamic banking, if implemented, will not only result in the financial inclusion of the marginalized sections of the society but also bring about socio-economic empowerment of the nation by way of poverty reduction. While such a scenario presents an opportunity, it also has its challenges. Lack of trained and skilled manpower to manage and administer the new set up and the lack of awareness of the benefits of the system among the masses might delay the early onset of this sunrise industry. Once the challenges are overcome, India will surely stand to gain, as it can attract a lot of foreign remittances and thereby fulfill its dream of becoming an Asian financial hub.

Scope for further research

The future directions for this research could be carried out by drawing similar clusters across the rest of the country. This may help to get a better and broader perspective of the need for Islamic banking vis-a-vis its prospects in India. The results of the present study are reflective of what would be found in another sample area which does not have any established Islamic banking entity.

Also, now that there are efforts being made towards the establishment of such institutions by the various Muslim bodies of this country, it would be interesting to find out about the attitudes of Muslims in particular, and others in general, if such Islamic finance options are made available to them.

REFERENCES

1. Amin, U. (2012). Islamic Banking in India: Religious and Socio-Economic Perspectives Affecting Muslim Investors of Ahmedabad District in Gujarat. *Chief Patron. International Journal of Research in Commerce, IT and Management*, 2(1), 116-121. Retrieved from http://ijrcm.org.in/article_info.php?article_id=1258
2. Awan, H. M., & Shahzad Bukhari, K. (2011). Customer's criteria for selecting an Islamic bank: evidence from Pakistan. *Journal of Islamic Marketing*, 2(1), 14-27. Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/17590831111115213>
3. Bagsiraj, M. G. I. (2003). *Islamic Financial Institution of India: Progress, Problems and Prospects*. Jeddah: King Abdulaziz University.
4. Chapra, M. U., & Khan, T. (2000). *Regulation and supervision of Islamic banks*. Jeddah: Islamic Development Bank, Islamic Research and Training Institute.
5. Erol, C., & El-Bdour, R. (1989). Attitudes, behavior, and patronage factors of bank customers towards Islamic banks. *International Journal of Bank Marketing*, 7(6), 31-37.
6. Erol, C., Kaynak, E., & Radi, E. B. (1990). Conventional and Islamic banks: patronage behavior of Jordanian customers. *International Journal of Bank Marketing*, 8(4), 25-35.
7. Gerrard, P., & Barton Cunningham, J. (1997). Islamic banking: a study in Singapore. *International Journal of Bank Marketing*, 15(6), 204-216.
8. Haque, A. K. M. (2010). Islamic banking in Malaysia: a study of attitudinal differences of Malaysian customers. *European Journal of Economics, Finance and Administrative Sciences*, 18, 7-18.
9. Haron, S., Ahmad, N., & Planisek, S. L. (1994). Bank patronage factors of Muslim and non-Muslim customers. *International Journal of Bank Marketing*, 12(1), 32-40.
10. Hidayat, S. E., & Al-Bawardi, N. K. (2012). Non-Muslims' perceptions toward Islamic banking services in Saudi Arabia. *Journal of US-China Public Administration*, 9(6), 654-670. Retrieved from https://www.researchgate.net/publication/266478556_Non-Muslims%27_Perceptions_Toward_Islamic_Banking_Services_in_Saudi_Arabia
11. Jamshidi, D., Hashemi, K., Hussin, N., Wan, H. L., & Mossafa, S. (2014). Investigating critical factors influencing acceptance and marketing strategies of Islamic banking services in Malaysia. *International Journal of Accounting Research*, 1(10), 41-49. Retrieved from http://arabianjbmr.com/pdfs/AC_VOL_1_10/5.pdf
12. Khan, K. A. (2013). Emerging Islamic Banking: Its need and scope in India. *Pacific Business Review International*, 5(7), 84-91.
13. Khattak, N. A., & Kashif-Ur-Rehman (2010). Customer satisfaction and awareness of Islamic banking system in Pakistan. *African Journal of Business Management*, 4(5), 662.
14. Khoirunissa, D. (2003). Consumers' preference toward Islamic banking (case study in bank Muamalat Indonesia and bank Bni Syariah). *Jurnal Iqtisad*, 4(2).
15. Marimuthu, M., Wai Jing, C., Phei Gie, L., Pey Mun, L., & Yew Ping, T. (2010). Islamic banking: selection criteria and implications. *Global Journal of Human-Social Science Research*, 10(4).
16. Metawa, Saad A., & Mohammed Almosawi (1998). Banking behavior of Islamic bank customers: perspectives and implications. *International Journal of Bank Marketing*, 16(7), 299-313.
17. Muniswamy, S., Soundararajan, G., & Ramaswamy, R. (2013). Islamic Finance in India: A study on the perception of College Teachers in Chennai. *Journal of Islamic Economics, Banking and Finance*, 9(3), 131-147. Retrieved from https://www.salaamgateway.com/en/story/islamic_finance_in_india_a_study_on_the_perception_of_college_teachers_in_chennai-salaam21092016141712/
18. Okumuş, H. Ş. (2005). Interest-free banking in Turkey: a study of customer satisfaction and bank selection criteria. *Journal of Economic Cooperation*, 26(4), 51-86.
19. Pandu, A., & Hussain, M. G. (2012). A Suitable Lawful Structure for Introduction of Islamic Banking in India: An Outline. *Indian Journal of Finance*, 6(2), 13-18.

20. Rasheed, H., Aimin, W., & Ahmed, A. (2012). An Evaluation of Bank Customer Satisfaction in Pakistan, Comparing Foreign and Islamic Banks. *International Journal of Academic Research in Business and Social Sciences*, 2(7), 177.
21. Rustam, S., Bibi, S., Zaman, K., Rustam, A., & Haq, Z. U. (2011). Perceptions of Corporate Customers Towards Islamic Banking Products and Services in Pakistan. *The Romanian Economic Journal*, 41, 107-123.
22. Saqib, L., Farooq, M. A., & Zafar, A. M. (2016). Customer perception regarding Sharia'h compliance of Islamic banking sector of Pakistan. *Journal of Islamic Accounting and Business Research*, 7(4). Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/JI-ABR-08-2013-0031>
23. Singh, D. J., & Yadav, D. P. (2013). Islamic Banking in India-Growth and Potential. *International Journal of Marketing, Financial Services & Management Research*, 2(4).
24. Vasu, B. (2005). Islamic Banking – Banking for a change. The Indian Express, October 2, 2005.
25. Wajdi Dusuki, A., & Irwani Abdullah, N. (2007). Why do Malaysian customers patronize Islamic banks? *International Journal of Bank Marketing*, 25(3), 142-16.