Islamic Banking Users Are Hungry for Service Quality

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Abstract

Islamic banking is growing tremendously since its inception in the past three decades. The products and services offered by the Islamic banking industry either in its assets or liability sides are competitive with the products and services of the conventional banking. The growth of the Islamic banking in tandem with the conventional banking give alternative to the consumers, thus comparison between these two systems could be made by the consumers in selecting their banking providers. Therefore, this study is conducted to analyze the factors influencing banking preferences of Islamic Banking and Conventional users using factor analysis and logistic regression. Result shows that there are three factors contribute to the banking selection preferences for Islamic banking and conventional banking users. In conclusion, the Islamic banking users are looking forward for a better service quality since this factor is significant negative compared to the service quality from the conventional banking.

1. Introduction

Worldwide, the Islamic banking is currently in enormous growth. Islamic banking is governed by the *shariah* laws with the objective of achieving fairness and balance between the parties in an agreement. This makes it a huge different from conventional banking as conventional banking does not have the element of religion or belief in the governance. In terms products, both type of banks offered equivalent facilities. This provides consumers with a wide range of choices in selecting a bank that best suit their needs and economic benefits. Researchers have identified several factors of consumers' preferences of bank selection, for example, the cost and benefit (Metawa & Al-Mossawi, 1998), (Abbas, M.A.A., H., & S., 2003), service quality (Ahmad &

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Haron (2002), staff factors (Laroche *et al* (1986), and mass media advertising (Haron, Ahmad *et al* (1994), Othman & Owen (2002). This research is motivated by the fact of choices the consumers have in their hands. Although there are many researches have been conducted to discover the preferences of consumers in selecting banks, this research tries to uncover the factors influencing between Islamic banking and conventional by using factoring analysis and logistic regression. The objectives of the study are to identify the banking users' behaviors selection; to highlight the factors that gave higher impacts to the selection of Islamic Banking and to highlight the factors that gave higher impacts to the selection of Conventional Banking. Even though there are several researches that have been conducted based on the selection of Islamic and conventional banking. However, most of the researches conducted on the banking selection respondents selected are based to certain specific locations or states because of cost and time constraints. In overcoming the problems, online questionnaires were used in ensuring that the respondents could be from various states in Malaysia. In addition, the author would identify the factors that contribute to the banking selection using a different method as compared to the previous researchers. It is expected that the result from this research is consistent with result from the previous literature.

2. Literature Review

Naser et al (1999) in their study, has made an attempt to assess the degree of customer awareness and satisfaction towards an Islamic bank in Jordan. A sample of 206 respondents took part in this study. The analysis of their responses revealed a certain degree of satisfaction of many Islamic banks facilities and products. The respondents expressed their dissatisfaction with some of the Islamic banks services. Although the respondents indicated that they are aware of a number of specific Islamic financial products like *murabaha*[i], *musharaka*[ii] and *mudaraba*[iii], the study shows that they do not deal with them.

Erol, and El-Bdour, (1989) who conducted a research in Jordan, showed that the customers were actually more profit-oriented than religious-oriented. In other words, religious motive was not a dominant factor to consider *shari'ah* bank. Another study conducted by Ahamad and Haron (2002) on business attitudes towards Islamic banking found that economic factors, such as profitability and the quality of services, were more significant for Malaysian corporate customers than religious reasons. However, one qualifying factor could be that the majority of respondents were non-

Muslims who were generally less aware of the existence of Islamic banks and the substitutability of Islamic finance methods for conventional bank products and services. In fact, most respondents, both Muslim and non-Muslim, had a low level of knowledge about Islamic finance, especially for most of the business financing methods. As with the work on individual consumer preferences in Malaysia, this study recommended that Islamic financial institutions in Malaysia need to better market their products and services.

A research conducted in the Indonesia by Iwan Triyuwono et al. (2000) revealed that there were seven factors that contribute to the selection of Islamic banking which are information and rational consideration, religious and moral orientation, age and life cycle stage, preference group (family), location, life style, and belief and attitude.

A research conducted by Asyraf Wajdi Dusuki and Nurdianawati Irwani Abdullah (2006) revealed that the selection of Islamic banks appears to be predominantly a combination of Islamic and financial reputation and quality service offered by the bank. Other factors perceived to be important include good social responsibility practices, convenience and product price. This is based on a sample of 750 respondents from four different regions in Malaysia. The Islamic banking criteria ranking as perceived by the respondents are analyzed using Friedman Test and exploratory factor analysis is employed.

Nor Azurah Md. Kamdari, Remali Yusuf and Shaherah Abdul Malik (2007) have investigated the Islamic banking selection comparing Bank Islam (M) Bhd and other conventional banks users in Malacca comprising of 300 total respondents. The factors identified by them are reputation/ images, location, service quality, convenience and confidently for BIMB users. Overall, their findings revealed that customers and depositors of Islamic banks in Malacca have generally positive views of selection factors. One of the most important reflections of their positive attitude is that reputation and image factor are shown as important criteria in their banking selection. However their scope of study is limited to only Islamic banking users in a small state in Malaysia. Other research in the banking selection criteria are Erol and El Bdour, (1989), (1990); Haron, Ahmad et al., (1994); Gerard and Cunningham, (1997); Metawa and Almossawi., (1998); Naser, Jamal et al., (1999); Othman and Owen., (2001), (2002); Ahmad and Haron, (2002), Abbas, Hamid et al., (2003) as tabulated in the following table.

Table 1: Criteria in Banking Selection

Literature	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
Naser, Jamal *et al* (1976)	+	+	+	+	+	+	+	+	n/a	n/a
Aven (1979)	n/a	n/a	n/a	n/a	n/a	+	n/a	n/a	n/a	+
Ringgal (1980)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	+
Tan & Chua (1986)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	+	n/a	n/a
Laroche *et al* (1986)	n/a	+	n/a	n/a	+	+	n/a	+	n/a	+
Kaynak (1986)	n/a	n/a	+	+	n/a	n/a	n/a	n/a	n/a	n/a
Javalgi *et al* (1989)	n/a	+	+	+	n/a	n/a	n/a	n/a	n/a	+
Erol & El Bdour (1989)	-	+	+	+	+	+	+	+	-	n/a
Haron, Ahmad *et al* (1994)	-	+	+	+	+	+	+	+	+	n/a
Gerrard & Cunningham (1997)	+	+	+	+	+	+	+	+	+	n/a
Metawa & Almossawi (1998)	+	+	n/a	n/a	n/a	+	n/a	+	n/a	n/a
Othman (2001)	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	n/a
Othman & Owen (2002)	+	+	+	+	n/a	+	+	n/a	+	n/a
Ahmad & Haron (2002)	-	+	+	+	+	+	n/a	n/a	n/a	n/a
Abbas, Hamid *et al* (2003)	+	+	n/a	+	+	+	+	+	n/a	n/a
Nor Azurah *et al* (2007)	n/a	n/a	+	+	n/a	+	+	n/a	n/a	+

Notes: + indicate positive result; +/- indicate equivocal results, - indicates negative result and n/a indicates variables were not investigated.

A: Religious factor
B: Cost and Benefit
C: Service Quality
D: Size and Reputation
E: Staff Factors
F: Convenience
G: Confidentiality
H: Friends' and Relatives' Influences
I: Mass Media Advertising
J: Location

(Source Adapted and Improvised from Nor Azurah Mad Kamdari, Remali Yusuf and Shaherah Abdul Malik, 2007)

3. Research Methodology

The methods employ in this paper are rarely used in economics and finance research but are widely used in the medical research, sociology, marketing and international business. The methods are underutilized in applied behavioural research of economics and finance as well as Islamic finance mainly because lack of interest and initiatives from the researchers or because of the dynamics and robustness of the methods making the combination of these methods are popular in other areas. This study employs the exploratory factor analysis[iv]. Factor analysis will be used to reduce and consequently group the independent variables. Primary data will be collected for the purpose of analysis which will be further discussed in the collection of data section.

Nasser et al (1998) used logistic regression and factor analysis. [v] Qian et al. (2004) explore methods to develop uncorrelated variables for epidemiological analysis models. Both of the methods are also used in the Preventive Veterinary Medicine research conducted by Thorne and Hardin[vi] (1997). The methods were also employed in microbiology and diary veterinary research was conducted by Kramsky et al. (2000), Grant et al. (2001), Berghausa et al. (2005), and Collins and Morgan (1992).

In addition, in the area of diabetes care, Wang[vii] et al. (2004) also uses the same methods. Not limited to diabetes, the same methods are also employed in cardiovascular research was conducted by Nakamura[viii] et al. (2006). Geriatric Psychiatry researchers (2003) also employ the factor analysis and logistic regression in their research.

A research conducted by Iwan Triyuwono et al. (2000) used factoring analysis as well as logit/tobit analysis in determining the relationship of the Islamic banking selection in Indonesia.

Exploratory Factor Analysis (EFA) seeks to uncover the underlying structure of a relatively large set of variables. The researcher's *à priori* assumption is that any indicator may be associated with any factor. This is the most common form of factor analysis. There is no prior theory and one uses factor loadings to intuit the factor structure of the data. The main applications of factor analytic techniques are: (1) to *reduce* the number of variables and (2) to *detect structure* in the relationships between variables, that is to *classify variables*. Therefore, factor analysis is applied as a data reduction or structure detection method (the term *factor analysis* was first introduced by Thurstone, 1931).

Factor analysis is a co-relational technique to determine meaningful clusters of shared variance. Factor analysis begins with a large number of variables and then tries to reduce the interrelationships amongst the variables to a few numbers of clusters or factors. Factor analysis finds relationships or natural connections where variables are maximally correlated with one another and minimally correlated with other variables and then groups the variables accordingly. After this process has been done many times a pattern appears of relationships or factors that capture the essence of all of the data emerges. Therefore factor analysis refers to a collection of statistical methods for reducing correlational data into a smaller number of dimensions or factors (Imam Ghozali, 2006).

The factor analysis is used to define customers' selection criteria of Islamic banks in Malaysia which is in line with the analytical style used by Haron et al. (1994), Gerard and Cunningham (1997, 2001); Almossawi (2001), and Nor Azurah Kamdari, Remali Yusuf and Shaherah Abdul Malik (2007). Exploratory factor analysis with varimax rotation is conducted because the varimax criterion centers maximizing possible simplification are reached if there are only 1s and 0s columns (Hair et al, 2006). The Kaiser-Meyer-Olkin (KMO) is to quantify the degree of intercorrelations among the variables and the appropriateness of factor analysis (Hair et al, 2006) In addition, Bartlett's Test of sphericity measure the presence of correlations among the variables.

Two methods are available for rotation of factors, orthogonal and oblique rotation. The former ensures the factors produced will be unrelated to each other, while the latter produces factors, which are correlated (Hair et al., 1998). However, no specific rule has been developed to guide the researchers in selecting a particular orthogonal or oblique rotational technique. In this study, Varimax orthogonal rotation is used because the study seeks to ensure that the factors produced will be independent or unrelated to each other.

Logistic regression applies maximum likelihood estimation after transforming the dependent into a logit variable (the natural log of the odds of the dependent occurring or not). In this way, logistic regression estimates the probability of a certain event occurring. Logistic regression has many analogies to OLS regression: logit coefficients correspond to beta coefficients in the logistic regression equation, the standardized logit coefficients correspond to beta weights, and a pseudo R^2 statistic is

available to summarize the strength of the relationship. Unlike OLS regression, however, logistic regression does not assume linearity of relationship between the independent variables and the dependent, does not require normally distributed variables.

Press and Wilson (1978) make the case for the superiority of logistic regression for situations where the assumptions of multivariate normality are not met a compared to multiple discriminants. They conclude that logistic and discriminant analyses will usually yield the same conclusions, except in the case when there are independents which result in predictions very close to 0 and 1 in logistic analysis.

Logistic regression also does not assume homoscedasticity, and in general has less stringent requirements. It does, however, require that observations are independent and that the independent variables be linearly related to the logit of the dependent. The success of the logistic regression can be assessed by looking at the classification table, showing correct and incorrect classifications of the dichotomous, ordinal, or polytomous dependent. Also, goodness-of-fit tests such as model chi-square are available as indicators of model appropriateness as is the Wald statistic to test the significance of individual independent variables.

Collection of Data

Questionnaires were posted on the internet and emails were sent to the potential respondents redirecting them to the website. Then, the data were downloaded from the website database and were converted to SPSS compatible data form. The data were used for analysis using the factoring analysis and logistic regression. There are approximately 209 respondents who have participated in the survey comprise from the Islamic banking and conventional banking users. However, in this research we excluded the user who uses both banking. Therefore only 191 respondents will be used in this research. The number of samples is adequate for factor analysis since it is at least 5 times greater than the numbers of variables (Hair et al, 2006). In this case, the ratio of respondents to variables is 8:1. The demographic profiles of the respondents are illustrated in the table 3.1.

Table 2: Distribution of Respondents (n = 191)

		Valid Percent
Banking Preferences	Islamic Banking	62.7
	Conventional Banking	8.6
	Both	28.7
Gender	1) Male	41.1
	2) Female	58.9
Age Group	1) Below 20	1.4
	2) 21-25	45.5
	3) 26-30	20.1
	4) 31-35	19.1
	5) 36-40	5.7
	6) 41-45	4.3
	7) 46-50	2.9
	8) Above 50	1
Marital Status	1) Single	55.5
	2) Married	44
	3) Divorced	0.5
Monthly Income	1) Below RM2000	44
	2) RM 2001 - 2500	11
	3) RM 2501-3000	9.6
	4) RM 3001- 3500	10
	5) RM 3501 - 4000	6.2
	6) RM 4000 - 4500	5.3
	7) RM 4501 - 5000	2.9
	8) Above 5001	11
Education level	School	4.3
	Postgraduate	21.5
	University	74.2
State	Selangor	29.7
	Wilayah Persekutuan	16.3
	Negeri Sembilan	15.8
	Kelantan	7.2
	Pahang	5.3
	Perak	4.3
	Johor	3.8
	Kedah	3.8
	Pulau Pinang	3.8
	Terengganu	3.3
	Melaka	3.3
	Perlis	1.4
	Sabah	1.4
	Labuan	0.5

Based on Table 2, it is found that almost two third of the respondents prefer to have Islamic banking, while 29% prefer to have both Islamic and conventional banking and less than 10% opt for conventional banking alone. Majority of the respondents are female (59%) compared to male (41%). Respondents are primarily at the age range of 21-25 (45%), followed by 26-30 (20%) and 31-35 (19%), and small percentage from 36-40 (6%), 41-45 (4%), 46-50 (3%), below 20 and above 50 (1% respectively).More than half of the respondents are still bachelor (55%), while 44% of them are married and the rests are divorced. Based on their income, majority of them (44%) earn below RM2000 monthly, followed by RM2001-2500 and above RM5001 (11% respectively), RM2501-3000 and RM3001-3500 (10% respectively), RM3501-400 (6%), RM4000-4500 (5%) and RM4501-5000 (3%). Three quarter of the respondents are university graduates, while 21% possess postgraduate studies and the rests finished their secondary school. Out of 191 respondents, 30% of the respondents are from Selangor followed by Kuala Lumpur and Negeri Sembilan, and the rests of the states in Malaysia.

4. Findings

This section will highlight the factors that contribute practically to the selection of banking users. Overall there are five factors that are found to be contributing practically but do not necessary significant to the Islamic banking and conventional selection factors using component analysis.

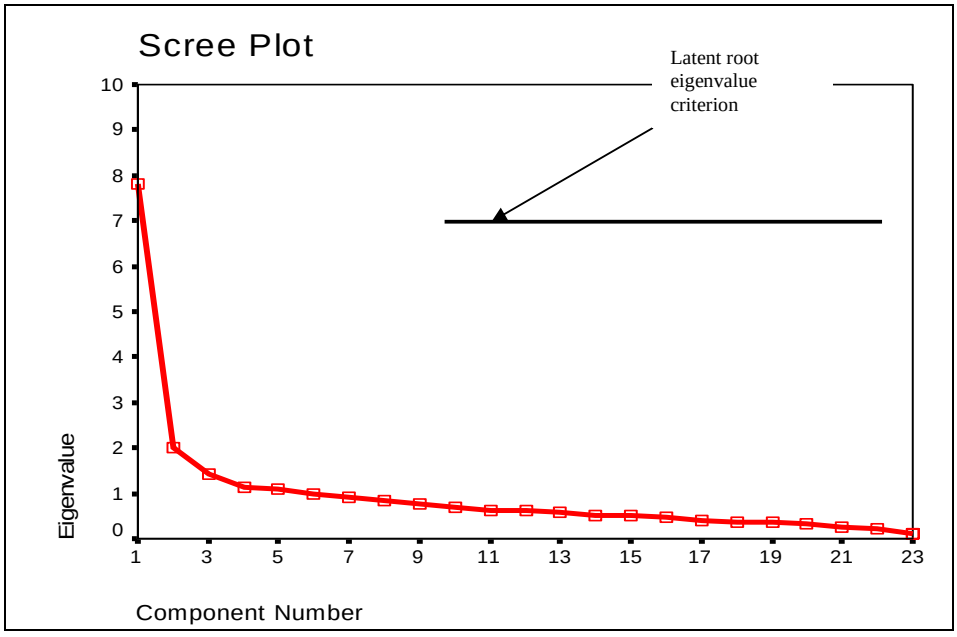
The Measurement of Sampling Adequacy (MSA) Test is 0.878 which is higher than 0.5 which enable the factor analysis to be further analyzed. Furthermore the Bartlett's Test of Sphericity is significant at 0.00 levels which mean that there are intercorrelations among the variables.

Table 3: Overall Measures of Intercorrelation

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.878
Bartlett's Test of Sphericity	Approx. Chi-Square	2042.93
	df	253
	Sig.	.000

In extracting the numbers of factors, latent root criterion is used. This is the most commonly used technique and simple to apply either to component analysis or common factor analysis. In this criterion, only the factors having latent roots or eigenvalues of greater than 1 will be considered as significant. All factors which are having eigenvalues lower than one will be disregarded. This could be shown in the Scree Plot as below.



However, the total variance explained by the five factors does not exceed the minimum requirement needed of 0.60. The overall percentages of the five factors are 59% which do not pass the minimum requirement of 0.6 but the 1% difference could be ignored.

The factor loadings for the variables of the five factors are also significant and positive except for X10, X23, X4 and X7 because their factor loadings are lesser than 0.5. Overall the communalities for significant factors are above than 0.5 except for X9, X15 and X19. Even though these here variables have low communalities but they are greater than one half of variance of each variable. Therefore all the three variables would be remained in the analysis.

Table 4: Rotated Component Matrix

	Promotion	Customer Service	Pricing	Service Quality	Convenience	Communalities
X10						0.52
X23						0.46
X4						0.40
X7						0.57
X8			0.76			0.65
X6			0.70			0.67
X1		0.81				0.69
X3		0.70				0.60
X2		0.62				0.55
X20		0.57				0.61
X11	0.77					0.70
X12	0.74					0.74
X5	0.65					0.51
X9	0.63					0.47
X13	0.53					0.52
X15	0.52					0.46
X19	0.52					0.48
X22					0.70	0.63
X21					0.52	0.48
X17				0.70		0.68
X16				0.69		0.65
X18		0.58		0.55		0.73
X14				0.54		0.50

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 8 iterations.

Based on the varimax rotated component analysis, there are five factors that were extracted by the techniques. The researchers have used their intuitions in naming the factors and the factors are named promotion, customer service, pricing, accessibility and service quality.

All of the five factors would be analyzed in order to determine the factors that contribute significantly in the selection of banks using logistic regression whereby banking users who prefer Islamic banking will be categorized as 1 and users who select the conventional banking will be categorized as 0. The Hosmer and Lemeshow test is significant at 0.07 since Chi Square is 14.45. It means that the data is fit with

the model. Furthermore the overall accuracy for the model is approximately 89.3 percent which is considered reliable. Factors that are deemed significant by this procedure are promotion, convenience and service quality. The promotion and convenience are positively significant to the Islamic banking selection whereby the service quality is negatively significant to the Islamic banking selection or in other word more towards the conventional banking. The model is as follows:

Table 5: Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
Promotion	.74	.316	5.526	1	.02	2.1	1.13	3.91
Service Quality	-.73	.295	6.027	1	.01	.5	.27	.86
Convenience	.81	.315	6.663	1	.010	2.3	1.22	4.17
Constant	-2.45	.368	44.899	1	.000	.1		

a Variable(s) entered on step 1: FAC5_1.

b Variable(s) entered on step 2: FAC4_1.

c Variable(s) entered on step 3: FAC1_1.

$$\text{Ln } p/1\text{-}p = -2.467 + 0.744 \text{ (Promotion)} - 0.725 \text{ (Service Quality)} + 0.812 \text{ (Convenience)}$$

Or

$$p/1\text{-}p = e^{-2.467 + 0.744 \text{ (Promotion)} - 0.725 \text{ (Service Quality)} + 0.812 \text{ (Convenience)}}$$

The result shows that if other variables are constant and the banking industry increase its promotion, the Islamic banking selection will increase by a factor of 2.1. If promotion and convenience factors are constant and the banking industry increase its efforts in service quality, the Islamic banking selection will increase by a factor of 0.5 only. However, if convenience factor is set not to be constant and the other two are constant, then the increase of effort by the banking industry in providing convenience will increase the Islamic banking selection by a factor of 2.3.

While many researches did not include promotion factor in selecting Islamic banking in their study, this paper achieved a result that it is a significant factor and it is alliance with the study conducted by Othman and Owen (2002). For the positively significant convenience factor, other studies that have the same outcome are by Naser, Jamal *et al* (1976), Erol & El Bdour (1989), Abbas, Hamid et al (2003), and Nor Azurah *et al* (2007). In terms of service quality, this study found that consumers

prefer the services provided by the conventional banking. It is not agreeable with Naser, Jamal *et al* (1976), Othman & Owen (2002), Ahmad & Haron (2002) and Nor Azurah *et al* (2007).

5. Conclusion

The conventional banking has long been established in the banking industry globally. However, the growth of Islamic banking industry in Malaysia and around the world is inevitable. To ensure their competitiveness and stability, and to be in line with the emerging Islamic banking, local and foreign banks are competing with each other in introducing Islamic banking products to their consumers. They are aware on the importance of providing *shariah* compliance products to cater the demand from the public, businesses and government agencies. Islamic banking is becoming more universal since it is accepted not merely because of religious factor. This study compares the consumers' preferences towards Islamic and conventional banking using five identified factors namely promotion, customer service, pricing, accessibility and service quality. The findings show that there are 3 significant factors influencing the Islamic and conventional banking consumer behaviors. The factors are promotion, convenience and service quality. However, only promotion and convenience factors contribute positive significant to the Islamic banking preferences. The study also shows that consumers prefer to have conventional banking because of its service quality. Since the Islamic banking is still in its growth stage as compared to the conventional banking industry, the banking users will use the long established service quality from the conventional banks. The Islamic banking, in order to remain its competitive should consider upgrading its service quality at par with the conventional banking. If the Islamic banks could increase its service quality, the banking users' behaviors towards the conventional banking might be promising to the Islamic banking providers.

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[i] One of the most controversial type of transaction, it is a contract of sale in which payment is made some time after delivery of the goods transacted. Used as the basis of modern Islamic banking since the amount charged for deferred payment is in excess of the current market price (usually by an amount approximately equivalent to the prevailing rate of interest).

[ii] This simply refers to a partnership. This is like a joint-venture agreement which stipulates the conditions of a partnership. For this joint-venture to be in line with Islamic law, both parties must participate in profits and losses, not just in profits. This technique can be used for short-term financing.

[iii] Mudarabah (also called Qirad) = this is a profit and loss sharing contract. In it, one party provides capital and the other manages the enterprise. If there is loss, the provider of capital bears the financial loss while the worker loses his labor. If there is profit, both parties share it in proportions agreed upon at the time of the contract.

[iv] The term *factor analysis* was first introduced by Thurstone (1947) in 1931.

[v] Naser et al. uses logistic regression for modeling the observation-to-indicator ratio needed for the standard error scree[v] procedure (SEscree) to correctly identify the number of factors existing in generated sample correlation matrices which were derived from factor analysis. The factor analysis and logistic regression are used to examine associations between respiratory health outcomes and multiple household risk factors.

[vi] They conducted a research in identifying the prevalence of par tuberculosis on cattle.

[vii] Research in identifying the metabolic syndrome and Incident Type 2 Diabetes in a Chinese Population.

[viii] Research in identifying risk factors that may induce adverse outcome defined as permanent neurological dysfunction and mortality after aortic arch surgery.
