

# Motivations of Australian Small Business Firms to Apply Profit-Loss Sharing Method of Finance

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**Abstract:** This paper records the results of a survey done to discover what factors might motivate small businesses in Australia to obtain funds using the profit-loss sharing (PLS) method of finance. The survey was done in the Sydney metropolitan area in late 1997 covering 385 small businesses. Of the respondents, 59.5% expressed readiness to borrow funds on a PLS basis. Factor analysis, applied to the collected data, suggests that the respondents are willing to obtain funds on this basis due to five main factors namely, business support, risk sharing, risk of default in the traditional system, cost of borrowing, and suitability of the PLS method for business funding.

## **I. Introduction**

Small businesses usually obtain finance from commercial lenders on fixed or variable rates of interest. These businesses, or for that matter any other borrower, have to pay back the principal borrowed along with the stipulated interest at the end of a specified period. They are willing to pay the interest on the loan over and above the principal borrowed because they expect the borrowed amount of capital to make a marginal contribution in their profits greater than or at least equal to the total interest paid. However, businesses

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All statistical outputs of the factor analysis used in this paper are available from the author on request.

are legally liable to pay the interest and the principal regardless of their actual level of earnings. They must make these contracted payments even if they suffer heavy losses in the project.

High rates of interest have been one of the major causes for business bankruptcies in Australia as well as in other developed countries (Castagna, 1981:71; Beaver, 1966:259). The Attorney-General's 1995-1996 Annual Report on bankruptcies suggested that the high rates of interest paid by businesses are the second most important cause for business bankruptcies in Australia, the first being managerial incompetence (IGB, 1996:81). A notable survey on small business failures in Australia by Renfrew and Sheehan concluded that while bankruptcies were not synonymous with financial failures, the *a priori* expectation that financial difficulties were more common in small and recently established non-manufacturing firms was found to be true in the early 1970s (Renfrew and Sheehan, 1985:69). Cumming and Petit (1981:13) found that the interest cost burden was statistically significant for corporate bankruptcies in the UK and Japan during the 1980s. Altman showed that net interest payments as a percentage of income of non-financial corporations increased from approximately 20% in 1978 to over 40% in 1981, and that record high interest rates were the primary cause for an increased level of bankruptcies in the United States during the early 1980s (Altman, 1983:121).

It is well known that business returns fluctuate over time. Business has its cycles which affect profitability and hence, the ability to repay loans and charges. This applies to all businesses, but particularly those small businesses whose earnings are more exposed to lack of business experience, competition and market uncertainty. Given these uncertain economic conditions, interest charges that are not linked to business performance may create financial difficulty and hardship for these firms at times of poor economic conditions. If a method of finance which links the cost of borrowing to business performance and allows risk sharing was available to small businesses, the incidence of hardship and even bankruptcy could be avoided or at least have less impact on business and people. One such method of finance, called profit-loss sharing (PLS), is practised in some predominantly Islamic South-east Asian and Middle Eastern countries. A number of such financial institutions in Western countries including the UK, Denmark, Luxembourg, Switzerland and Australia have been applying this method since the early 1980s (Wilson, 1990:90; DeBelder, 1993:25; Metwally, 1993:113).

The PLS system works as follows: the entrepreneur obtains the required amount of funds from a financier and both parties agree to share the outcome (profit-loss) in some proportions. Hence, the financier is not entitled to a fixed rate of return regardless of what happens to the venture as is the case with the conventional system of finance. There are various ways in which the PLS principle is applied, depending on the borrower's contribution of capital to the project and the lender's contribution to management. The ratio in which the outcome of the project (profit/loss) is shared usually relates to equity, if no management role is played by the lender. However, the borrower is compensated for the entrepreneurship role (Wilson, 1985:3; Khan, 1986:31; Al Hennawi, 1990:51; Siddiqi, 1986:12; Ismail, 1992:213).

The aim of this study is to discover the attitudes of Australian small businesses towards applying the PLS method of finance. The paper is divided into five sections. Section two outlines the main characteristics of the sample of firms used in the study. Section three briefly discusses the factor analysis model used in analysing the collected data. Section four gives the statistical results while the final section summarises the main conclusions drawn from the results.

## II. Main Characteristics of the Sample

The survey of small businesses was conducted in New South Wales (NSW) in the Sydney metropolitan area during August-December 1997, to find out the small businesses' motivations towards PLS method of finance. The respondents were briefed on the main features of this method of finance before filling in the questionnaires. The questionnaire was divided into three parts. The first part concentrated on general information on small businesses and the second part dealt with their views on the traditional methods of finance. The last part was devoted to the firms' views on the PLS method of finance. The data were collected through personal interviews.

The sample size was determined using a proportion of population ( $\pi$ ) equals 0.5; a confidence level of 95% (which corresponds to a  $Z$ -value of 1.96) and an error or precision ( $E$ ) of 0.05. Given these assumptions, the sample size ( $n$ ) is estimated by  $n = \pi(1-\pi)Z^2 / E^2 \cong 385$  firms.

The definition of small businesses as used in this study is that given by the Australian Bureau of Statistics (ABS): a small business is one which employs up to 20 people in non-manufacturing and 100 people in manufacturing industries (ABS, 1995:15). The sample was selected using the

following procedure: (i) All firms listed in the 1997 Telephone Directory Book (Sydney Yellow Pages) were taken as the population base for the study; (ii) 400 small businesses were selected at random from the telephone directory pages using the MINITAB<sup>®</sup> statistical package; (3) If the selected firm was not a small business or refused to participate, the next available one was selected.

This survey covered different types of small business with various levels of assets, amounts of borrowing and years of business experience. Of the sample, 36.4% were engaged in wholesale and retail trade. Small businesses in the manufacturing sector made up 34% of the sample. The remaining firms include a wide variety of small enterprises, in distribution and services.

Other details of the enterprises are as follows (all amounts in Australian dollars):

- (i) About 28% of firms had total assets of less than \$200,000 each. Around 40% had assets between \$200,000 to \$600,000 while 14% had assets between \$600,000 and \$1 million, the remaining 18% of business firms were operating with total assets of more than \$1million. The median asset size was \$500,000.
- (ii) The firms borrowed funds from various financial institutions, using a number of methods of finance. Of those that borrowed funds over a five-year period, 72.1% obtained these funds from commercial banks, 69.8% of which used overdraft as a method of finance. Apart from overdraft, the survey found that business firms also obtained funds through term loan (47.5%), commercial bills (11.5%), fully drawn advance (10.7%), term advance (3.8%) and bridging loan (0.8 %). Other funds were borrowed from finance companies (20.2%), insurance companies (5.7%), merchant banks (5%), building societies (3.4%), the Commonwealth Development Bank (2.3%) and other sources (2.6%) such as borrowing from partners and family members.
- (iii) Of the borrowers, 12.2% borrowed less than \$30,000. Another 12.2% borrowed between \$50,000 and \$70,000. A little more than 11% borrowed between \$100,000 and \$200,000. Amounts between \$200,001 to more than \$500,000 were borrowed by 16.9% of the firms surveyed.
- (iv) Of those small firms that borrowed funds or sought extensions on their existing loans, 39% were successful on all occasions in obtaining

- the required amount of loans or extensions; 23.9% were successful on some occasions and only 1.8% did not succeed at all.
- (v) Although 47% of the entire NSW workforce is employed in small business firms (Australian Bureau Statistics, 1995:51), 61.3% of the respondents employed less than 10 people. 22.1% employed 10 to 19 people while only 16.6% mostly in manufacturing employed 20 to 99 people. The modal size of employment was less than 10 people.
  - (vi) A majority of the businesses surveyed were owned by families (43.4%), followed by joint ventures (27.8%). Sole proprietorship and proprietary limited types of business accounted for 24.7% and 4.2% respectively.
  - (vii) About 87 % of the firms had 1 or 2 partners, while 7.3% of businesses had 3 partners, and 3.6% had 4 partners. Three individual businesses had 7, 12 and 13 partners. respectively.
  - (viii) The survey reveals that most Australian small businesses are not operating in a highly risky environment. In all, 60% did not regard their businesses as high risk, but about 25.5% thought they were operating in conditions prone to losses. The remaining 14.5% did not specify.
  - (ix) Of the firms surveyed, 67.5% leased various assets and other equipment to run their businesses. Among them, 47.3% leased motor vehicles or transport equipment, 29.9% leased machines or capital equipment and 23.6% leased buildings.
  - (x) Business owners of both sexes were represented in the survey, but the proportion of males (at 75.3%) exceeded that of females (24.7%). Obviously, most small businesses in Sydney are operated by men.
  - (xi) The dominant age-group was 20 to 40 (40.8%) while 34.8% were aged between 41 and 50 years while 22.9% were more than 50 years of age. Only 1.6% were less than 20 years.
  - (xii) Most respondents had experience, with 76.1% being in the particular business for more than 5 years. The rest had commercial experience of between 1 to 4 years.
  - (xiii) The survey discovered that a majority (59.5%) of the small businesses expressed a readiness to borrow funds for business using the PLS method of finance, while the rest (40.5%) objected to the use of this system.

### III. Methodology

The basic idea behind factor analysis is to describe a set of variables  $X_1, X_2, X_3 \dots X_n$  in terms of a smaller number of factors to elucidate the relationship between these variables (Muliak, 1972:291). The factor analysis model is expressed as a linear combination of underlying factors in the following equation:

$$Z_i = A_{i1} F_1 + A_{i2} F_2 + A_{i3} F_3 + \dots + A_{im} F_m + V_i U_i$$

where  $Z_i$  =  $i$ th variable with zero mean and unit variance;  $A_{ij}$  = multiple linearly combined coefficients of variable  $i$  on common factor  $j$ ;  $F$  = common factor;  $V_i$  = linearly combined coefficient of variable  $i$  on unique factor  $i$ ;  $U_i$  = unique factor for variable  $i$  and  $m$  = number of common factors.

The unique factors ( $U_i$ ) are correlated with each other as well as with the common factor (Lastovicka, 1991:107; Dillon and Goldstein, 1984:71). These common factors themselves are expressed as a linear combinations of the observed variables in the following form:

$$F_i = W_{i1} X_1 + W_{i2} X_2 + W_{i3} X_3 + \dots + W_{ik} X_k$$

where  $F_i$  = estimate of  $i$ th factor;  $W_i$  = factor score coefficient or weight;  $k$  = number of variables.

It is possible to select weight or factor score coefficients so that the first factor explains the largest portion of the total variance. Then a second set of weights can be selected so that the second factor accounts for most of the residual variance, subject to being uncorrelated with the first factor. That is,  $var(F_1) \geq var(F_2) \geq var(F_3) \geq \dots \geq var(F_n)$  where  $var(F_i)$  denotes the variance of  $F_i$  in the data being considered. This same principle could be applied to selecting additional weights for the additional factors. Thus, factors can be estimated so that their factor scores, unlike the values of the original variables, are not correlated (Manly, 1994:83).

### IV. Statistical Results of the Main Factors Favouring the Application of PLS Method of Finance

The respondents of the survey were asked to indicate their degree of agreement with the following statements using a five-point scale (1=strongly disagree, 2=disagree, 3= neither agree nor disagree, 4=agree and 5=strongly agree):  $S_1$ =Interest rates are too high for small business borrowers;  $S_2$ =Interest payments create difficulties for business during

adverse economic conditions;  $S_3$ =Interest rates (after they are charged) do not recognize ups and downs of business;  $S_4$ =Interest rates may contribute to the phenomenon of bankruptcy during sluggish economic conditions;  $S_5$ =Interest rates create a fixed claim on business assets;  $S_6$ =Lending criteria under the conventional system do not motivate business expansion;  $S_7$ =The PLS method links cost of borrowing to profitability;  $S_8$ =Repayment of debt should vary with economic conditions;  $S_9$ =The PLS method allows the sharing of risk between borrowers and lenders;  $S_{10}$ =The PLS method suits starting business with small capital;  $S_{11}$ =The PLS method could reduce bankruptcy caused by failure to service the debt;  $S_{12}$ =The PLS method does not put a heavy burden on borrowers at times of slow-down in business;  $S_{13}$ =The PLS method would allow small business to obtain funds on a fair basis;  $S_{14}$ =The lender would care more about the borrower under the PLS system because of risk sharing;  $S_{15}$ =Sharing the profits would improve business efficiency;  $S_{16}$ =The PLS method would motivate business expansion;  $S_{17}$ =The PLS method would encourage innovations;  $S_{18}$ =The PLS method would provide business support to management at times of depression;  $S_{19}$ =The PLS method would suit mostly risky business;  $S_{20}$ =The PLS method is more flexible than the conventional method of borrowing;  $S_{21}$ =The PLS method would result in a more effective monitoring of business activities;  $S_{22}$ =Repayment of debt according to the PLS method would be subject to business conditions;  $S_{23}$ =In the PLS method of finance, both the lender and the borrower would be committed to business success;  $S_{24}$ =The cost of borrowing will not be a fixed cost item because the cost will be related to the outcome of the business; and  $S_{25}$ =It would be easier for partners to raise additional funds when existing lenders are also partners in the business.

The above statements are represented by the following twenty five variables:  $V_1$ =High interest charges (*HIC*);  $V_2$ =Risk of default in the traditional system (*RD*);  $V_3$ =Rigidity in the existing system (*RES*);  $V_4$ =Proneness to bankruptcy (*PB*);  $V_5$ =Interest claim on business assets (*ICBA*);  $V_6$ =Lack of motivation in the conventional system (*LM*);  $V_7$ =Cost of borrowing/profitability linkage (*CB*);  $V_8$ =Variable repayments (*VR*);  $V_9$ =Risk sharing (*RS*);  $V_{10}$ =Small capital requirement (*SCR*);  $V_{11}$ =Reduction in bankruptcy (*RB*);  $V_{12}$ =Economic conditions (*EC*);  $V_{13}$ =Terms of borrowing (*TB*);  $V_{14}$ =Care from lenders (*CL*);  $V_{15}$ =Improvement in business efficiency (*IBE*);  $V_{16}$ =Motivation for business expansion (*MBE*);  $V_{17}$ =Encouragement for innovation (*EI*);  $V_{18}$ =Business support in hard

times (*BSHT*);  $V_{19}$ =Suitability of the PLS to risky business (*SRB*);  $V_{20}$ =Relative flexibility of the PLS system (*FPLS*);  $V_{21}$ =Performance monitoring (*PM*);  $V_{22}$ =Suitability to economic conditions (*SEC*);  $V_{23}$ =Commitment to success (*CS*);  $V_{24}$ =Cost variability of finance (*CVF*); and  $V_{25}$ =Future funding prospects (*FFP*).

Factor analysis was performed on these explanatory variables with the primary aim of reducing the data to main underlying factors for which the respondents were prepared to apply the PLS method of finance. A correlation matrix was constructed based on the survey results. The data in this matrix show that there is high correlation among explanatory variables significant at 0.000 level. These variables are also expected to be highly correlated with the same set of factors. This justifies the appropriateness of factor analysis on the survey data (Malhotra, 1996:201).

**Table 1: Bartlett's Test and KMO of Survey Results for Applying Profit/loss Sharing Method of Finance**

KMO	0.930
Bartlett's Test: Approx. Chi-square Significance	4,876.925 0.000

Bartlett's test of sphericity was used to test the null hypothesis that the variables are uncorrelated in the population (Bartlett, 1951:3; Joreskog, 1966:172). The test provided a value of 4,876.925 (see Table 1), which is highly significant at 0.000 level favouring the rejection of the null hypothesis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was calculated with a value of 0.930 indicating that the sample size of this research is highly adequate and the factor analysis is appropriate (Kaiser, 1970:411 and 1974:113).

The application of Principal Components Analysis (Gorsuch, 1990:43 and 1974:171; Muliak, 1990:219; Basilevsky, 1994:179; Borgatta and Meyer, 1986:116) to the survey results is presented in Tables 2 to 4. The initial statistics in Table 2 suggest that there are five factors, each of which has eigenvalues greater than one. These factors account for 61.63% of the total variance. Thus, the 25 explanatory variables can be reduced to only five factors.



**Table 2: Initial Statistics of Survey Results for Applying PLS Method of Finance**

Variables	Eigen-Value	% of Variance	Cumulative %
HIC	9.470	37.880	37.880
RD	2.444	9.775	47.655
RES	1.393	5.573	53.228
PB	1.082	4.328	57.556
ICBA	1.019	4.076	61.632
LM	0.914	3.657	65.289
CB	0.868	3.472	68.760
RS	0.766	3.065	71.826
SCR	0.738	2.952	74.778
RB	0.631	2.522	77.300
EC	0.592	2.367	79.668
CL	0.543	2.170	81.838
IBE	0.510	2.038	83.876
MBE	0.472	1.887	85.763
SRB	0.449	1.794	87.557
PM	0.421	1.684	89.242
SCE	0.397	1.588	90.830
CS	0.368	1.473	92.303
CVF	0.352	1.409	93.713
FFP	0.324	1.294	95.007
VR	0.294	1.175	96.182
TB	0.278	1.114	97.295
EI	0.257	1.030	98.325
BSHT	0.229	0.918	99.243
FPLS	0.189	0.757	100.000

The factor matrix in Table 3 contains the coefficients used to express the standardized variables in terms of the factors. These coefficients, the factor loadings (Lawley and Maxwell, 1967:114), represent the correlation between the factors and the variables. A coefficient with large absolute value indicates that the factor and the variable are closely correlated.

The factor matrix or rotated component matrix obtained by the varimax procedure (Kent and Bibby, 1979:131) suggests that factor 1 has large coefficients for the variables representing the encouragement for innovation, business support at hard times, commitment to success, cost

variability of finance, performance monitoring, motivation for business expansion, relative flexibility of the PLS system, future funding prospects, improvement in business efficiency, suitability to economic conditions and care from lenders. This factor, therefore, may be labelled as 'business support'. Factor 2 has high coefficients on the variables related to the small capital requirement, economic conditions, risk sharing, reduction in bankruptcy and terms of borrowing. Thus, this factor may be labelled as 'risk sharing'.

Factor 3 has relatively high coefficients on the variables representing the risk of default in the conventional system, high interest charges, interest claim on business assets, rigidity in the existing system and proneness to bankruptcy. This factor, therefore, may be labelled as 'risk of default in the traditional system'.

**Table 3: Factor Matrix of Survey Results for Applying PLS Method of Finance**

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
EI	0.717	0.220	0.007	0.401	-0.008
BSHT	0.710	0.309	0.151	0.178	0.006
CS	0.703	0.310	0.103	-0.009	0.007
CVF	0.675	-0.000	0.002	0.233	0.244
PM	0.664	0.379	0.002	0.003	0.174
MBE	0.645	0.333	0.111	0.413	-0.123
FPLS	0.623	0.417	0.001	-0.004	0.270
FFP	0.617	0.362	0.141	0.009	0.003
IBE	0.606	0.196	0.009	0.530	-0.007
SEC	0.601	0.470	0.002	-0.009	0.159
CL	0.569	0.463	0.160	-0.129	0.110
SCR	0.315	0.741	0.009	0.168	0.000
EC	0.344	0.711	0.109	0.009	0.184
RS	0.316	0.684	0.124	0.156	0.003
RB	0.342	0.667	0.153	0.256	-0.006
TB	0.446	0.556	0.008	0.334	0.139
RD	0.110	0.104	0.749	0.230	0.006
HIC	0.166	-0.004	0.672	0.335	-0.116
ICBA	-0.001	0.211	0.640	0.009	0.241
RES	0.169	0.000	0.620	-0.286	-0.146
PB	-0.007	0.259	0.600	0.197	0.430
CB	0.140	0.123	0.150	0.771	0.112
VR	0.003	0.303	0.310	0.576	0.182
SRB	0.375	-0.002	-0.125	0.005	0.611
LM	0.007	0.138	0.326	0.008	0.539

Factor 4 has large coefficients on the variables related to the cost of borrowing/profitability linkage and variable repayments. Thus, this factor may be labelled as 'cost of borrowing'.

Factor 5 has high loads on suitability of PLS to risky business and the lack of motivation in the traditional system. This factor, therefore, may be labelled as 'suitability'.

Finally, in Table 4 the statistics provide relevant information after the desired number of factors have been extracted. It shows the communalities for the variables, along with the variance accounted for by each factor that is retained.

**Table 4: Final Statistics of Survey Results for Applying PLS Method of Finance**

Factors	Variables	Communalities	Eigen Value	% of Variance	Cumulative (%)
1	EI	0.736	9.470	37.880	37.880
2	SCR	0.686	2.444	9.775	47.655
3	RD	0.640	1.393	5.573	53.228
4	CB	0.665	1.082	4.328	57.556
5	SRB	0.533	1.019	4.076	61.632

The reproduced correlation matrix suggests that only 39 residuals fall between 0.1 to 0.18, which indicates an accepted fit for the factor analysis model.

## V. Conclusions

This paper used factor analysis to study the motivations of Australian small businesses for applying the PLS method of finance. The statistical results suggest that:

- (i) A majority of the responding small businesses indicated their readiness to try the PLS principle to meet their financing needs.
- (ii) The large number of variables motivating the small businesses to borrow funds using PLS finance can be condensed to five factors namely, business support, risk sharing, risk of default in the traditional system, cost of borrowing and suitability of PLS for business funding.
- (iii) The business support factor is found to be the dominant motivation for businesses to apply PLS financing. Respondents attached high values to variables such as the encouragement for innovation, motivation for business expansion, business support at hard times, commitment to success by borrowers and lenders, performance monitoring, relative

convenience of the PLS system, future funding prospects, improvement in business efficiency and suitability of this method to economic conditions.

- (iv) Risk sharing with banks and the reduction in the chances of bankruptcy are two prominent reasons for which small businesses liked this method of finance for their businesses.
- (v) Defaulting repayments is the most frightening experience for businesses, especially for the small ones. This is why the respondents attached high scores for the variables related to the risk of default in the traditional system, high interest charges, fixed interest claims on business assets and proneness to bankruptcy.
- (vi) The respondents also attached relatively high scores on the variables related to the profitability linkage to cost of borrowing and the variable repayment in the profit-loss sharing system. These features of this new method do favour most small borrowers.
- (vii) Many risky small businesses are motivated to use the PLS method because any potential business risk is shared with the lender.

## REFERENCES

- Al Hennawi, Mohamed (1990). "Potential Islamic Certificates for Resource Mobilisation", in Mohamed Ariff (ed.), *Developing a System of Financial Instruments*. Jeddah: Islamic Research & Training Institute and Islamic Development Bank.
- Altman, Edgar I. (1983). *Corporate Financial Distress: A Complete Guide to Predicting, Avoiding and Dealing with Bankruptcy*. New York: John Wiley & Sons.
- Altman, Edgar I. (1988). *The Prediction of Corporate Bankruptcy: A Discriminant Analysis*. New York: Garland Publishing, Inc.
- Australian Bureau of Statistics (ABS) (1995). *Small Business in Australia 1995*. Canberra: Government Publishing Service.
- Bartlett, Maurice S. (1951). "The Effect of Standardisation on an Approximation in Factor Analysis", *Biometrika*, 38, pp. 337-344.
- Basilevsky, Alexander (1994). *Statistical Factor Analysis and Related Methods: Theory and Applications*. Toronto: John Wiley & Sons.
- Beaver, William H. (1966). "Financial Ratios as Predictors of Failures", *Empirical Research in Accounting: Selected Studies*, Supplement to the *Journal of Accounting Research*, 71(111), pp. 249-271.
- Borgatta, Edgar F. and Meyer, Henry J. (1986). "A Cautionary Note on the Use of Principal Components Analysis", *Sociological Methods and Research*, 15, pp. 160-168.

- Castagna, Anthony D. (1981). "The Prediction of Corporate Failure: Testing the Australian Experience", *Australian Journal of Management*, 6(1), pp. 67-91.
- Cumming, Caroline and Petit, Walter W. (1981). *The Macroeconomic Determinants of Corporate Bankruptcies in Japan and the U.K.* Research Paper, Federal Reserve Bank of New York.
- DeBelder, Richard T. (1993). "The Changing Face of Islamic Banking", *International Financial Law Review*, 12(11), pp. 23-26.
- Dillon, William R. and Goldstein, Matthew (1984). *Multivariate Analysis: Methods and Applications*. New York: John Wiley & Sons.
- Gorsuch, Richard L. (1974). *Factor Analysis*. London: W.B. Saunders Company.
- Gorsuch, Richard L. (1990). "Common Factor Analysis Versus Component Analysis: Some Well and Little Known Facts", *Multivariate Behavioral Research*, 25, pp. 33-39.
- Inspector-General of Bankruptcy-IGB (1996). *Bankruptcy Act 1966: Annual Report by the Inspector-General in Bankruptcy on the Operation of the Bankruptcy Act 1966, 1 July 1995 to 30 June 1996*. Canberra: Government Publishing Service.
- Ismail, Abdul H. (1992). "Bank Islam Malaysia Berhad: Principles and Operations", in Aidit Ghazali and Syed Omar (eds.), *An Introduction to Islamic Finance*. Kuala Lumpur: Quill Publishers.
- Joreskog, Karl G. (1966). "Testing a Simple Structure Hypothesis in Factor Analysis", *Psychometrika*, 31, pp. 165-178.
- Kaiser, James F. (1974). "Little Jiffy, Mark IV", *Educational and Psychology Measurement*, 34, pp. 111-117.
- Kaiser, James F. (1970). "A Second Generation Little Jiffy", *Psychometrika*, 35, pp. 401-415.
- Kent, John T. and Bibby John M. (1979). *Multivariate Analysis*. London: Academic Press.
- Khan, Mohsin S. (1986). "Islamic Interest-free Banking: A Theoretical Analysis", *International Monetary Fund Staff Papers*, 33, pp 81-97.
- Lastovicka, John L. (1991). "Common Factor Score Estimates in Multiple Regression Problems," *Journal of Marketing Research*, 28, pp. 105-112.
- Lawley, Daniel N. and Maxwell, Albert E. (1967). *Factor Analysis as a Statistical Method*. London: Butterworths.
- Malhotra, Naresh K. (1996). *Marketing Research: An Applied Orientation*. New Jersey: Prentice Hall.
- Manly, Bryn J. (1994). *Multivariate Statistical Methods: A Primer*. London: Chapman and Hall.
- Metwally, Mokhtar M. (1993). *Essays on Islamic Economics*. Calcutta: Academic Publishers.
- Muliak, Stanley A. (1972). *The Foundations of Factor Analysis*. New York: McGraw-Hill Book Company.
- Muliak, Stanley A. (1990). "Blurring the Distinction between Component Analysis and Common Factor Analysis", *Multivariate Behavioral Research*, 25, pp. 53-59.

Renfrew, Kathryn M. and Sheehan, Winston J. (1985). *Financing and Growth of Small Businesses in Australia*. Canberra: Australian Government Publishing Service.

Siddiqi, Mohammad N. (1986). *Islamic Banking in Theory and Practice*. Paper presented at the Workshop on Islam and Economic Development in South East Asia, 5-7 August 1986, Singapore.

Wilson, Rodney (1985). *Islamic Business: Theory and Practice*. London: The Economist Publications.

Wilson, Rodney (1990). "Competition in Islamic Banking", in Rodney Wilson (ed.), *Islamic Financial Markets*. London: Routledge.