Chapter 5

Analysis and Results

5.1 Introduction

This section explains the results and findings of the study undertaken. We will analyse in detail the effectiveness of merger exercise using performance ratios, ROA, ROE and CER. An in-depth analysis will take us through the merger year, t and its predecessor and preceding years, t - 3, t - 2, t – 1 and t + 1, t + 2, t + 3. Higher marginal change in the Revenue component of ROA and ROE, which is $\Delta(R_y-R_{y-1})$[4] that is greater than the marginal change of the base component for those two financial ratios, which are Total Assets $\Delta TA = TA_y - TA_{y-1}$ and Total Equity $\Delta TE = TE_y-TE_{y-1}$, indicate better post merger performance. While negative or decrease CER, indicates better post merger cost efficiency of the merged bank.

As mentioned in Chapter 4 Research Methodology, as a significant one-time cost is incurred during the merger year, t, it is excluded from the analysis. The inclusion of the year of the merger, t, makes it difficult to compare with the results of other years.

5.2 Performance Ratio – Return on Assets, ROA

As this ratio measures the Return On Asset (ROA), the higher the ratio signifies higher return per asset. ROA measures a company's earnings in relation to all of the resources it had at its disposal. Per table 5.1 there is an upward trend from t – 3 to t + 3.

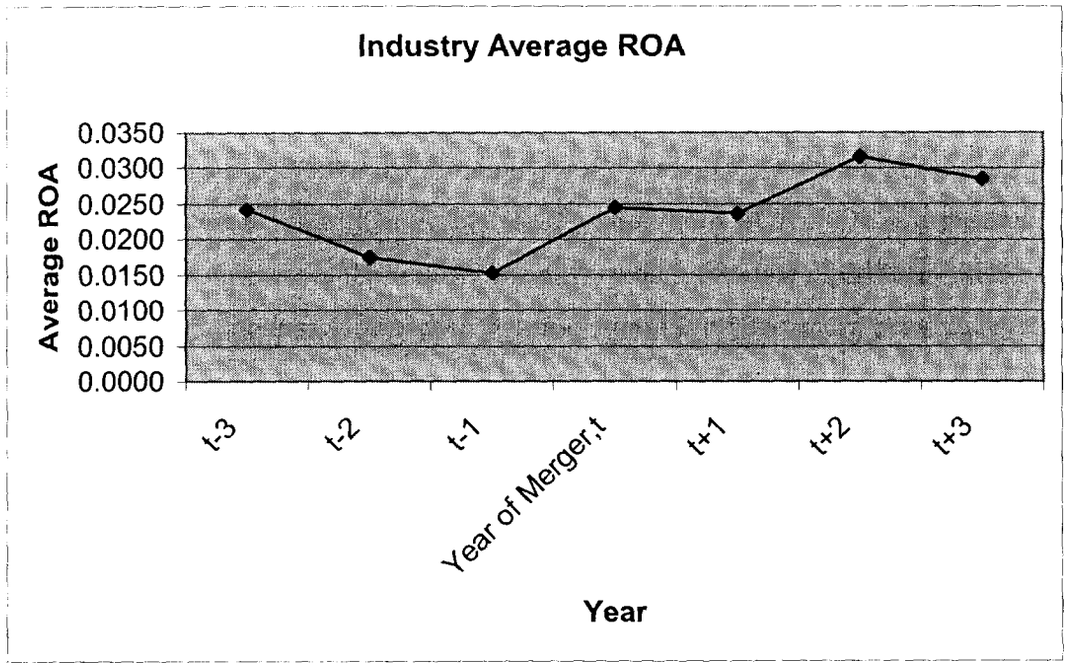
[4] y represents actual year and (y – 1) represents the year before y

Table 5.1: Average ROA for Banking Industry in Malaysia, t-3 to t+3
(where t represents merger year)

Commercial Banks	t-3	t-2	t-1	Year of Merger, t	t+1	t+2	t+3
Maybank	1998	1999	2000	2001	2002	2003	2004
	0.0208	0.0232	0.0318	0.0369	0.0353	0.0412	0.0370
Bumiputra Commerce	1996	1997	1998	1999	2000	2001	2002
	0.0272	0.0251	0.0012	0.0080	0.0249	0.0187	0.0207
RHB Bank[5]	2000	2001	2002	2003	2004	2005	2006
	0.0333	0.0236	0.0307	0.0273	0.0247	0.0000	0.0000
Public Bank	1998	1999	2000	2001	2002	2003	2004
	0.0387	0.0324	0.0403	0.0296	0.0322	0.0378	0.0473
Arab-Malaysian Bank[6]	1997	1998	1999	2000	2001	2002	2003
	0.0151	0.0045	-0.0472	0.0155	0.0202	0.0150	0.0102
Hong Leong Bank	1998	1999	2000	2001	2002	2003	2004
	0.0303	0.0279	0.0295	0.0387	0.0249	0.0499	0.0331
Affin Bank	1997	1998	1999	2000	2001	2002	2003
	0.0147	-0.0126	0.0178	0.0106	-0.0123	0.0208	0.0189
Alliance Bank	1998	1999	2000	2001	2002	2003	2004
	0.0255	0.0234	0.0221	0.0250	0.0268	0.0275	0.0248
Southern Bank	1997	1998	1999	2000	2001	2002	2003
	0.0319	0.0343	0.0316	0.0309	0.0384	0.0408	0.0360
EON Bank[7]	1998	1999	2000	2001	2002	2003	2004
	0.0042	-0.0070	-0.0047	0.0219	0.0207	0.0324	0.0000
Average ROA for Industry	**0.0242**	**0.0175**	**0.0153**	**0.0244**	**0.0236**	**0.0316**	**0.0285**

[5] Analysis of ROA, ROE and CER for RHB Bank Berhad is not possible due to insufficient data for comparison. Only financial data for one post merger period, year 2004, is available.
[6] Analysis of ROA, ROE and CER for AmBank Berhad is not relevant, as this bank was not involved in any merger exercise
[7] Analysis of ROA, ROE and CER for EON Bank Berhad is not possible due to insufficient data for comparison. Only financial data for two post merger period, year 2002 and 2003, are available

Figure 5.1: Average ROA for Banking Industry in Malaysia, t-3 to t+3



A drop in the average ROA is seen between t - 3 to t - 1. Despite the fluctuation trend after merger year, t, the industry average ROA is moving upward and enjoying a higher positive ROA. This finding suggests that mergers are associated with significant change in ROA, which implies that domestic banks are able to reap benefits from the bank mergers.

There are two possibilities to explain the increase of ROA subsequent to the merger activities. It could mean that return increases at a higher rate than assets or that asset base has shrunk at higher rate than revenue.

Our results are consistent with Peristiani (1993) where some improvement in ROA following bank mergers can be seen. On the other hand, it contrasts with Spong and

Shoenhair (1992) which had generally found no improvement in ROA following the merger exercises.

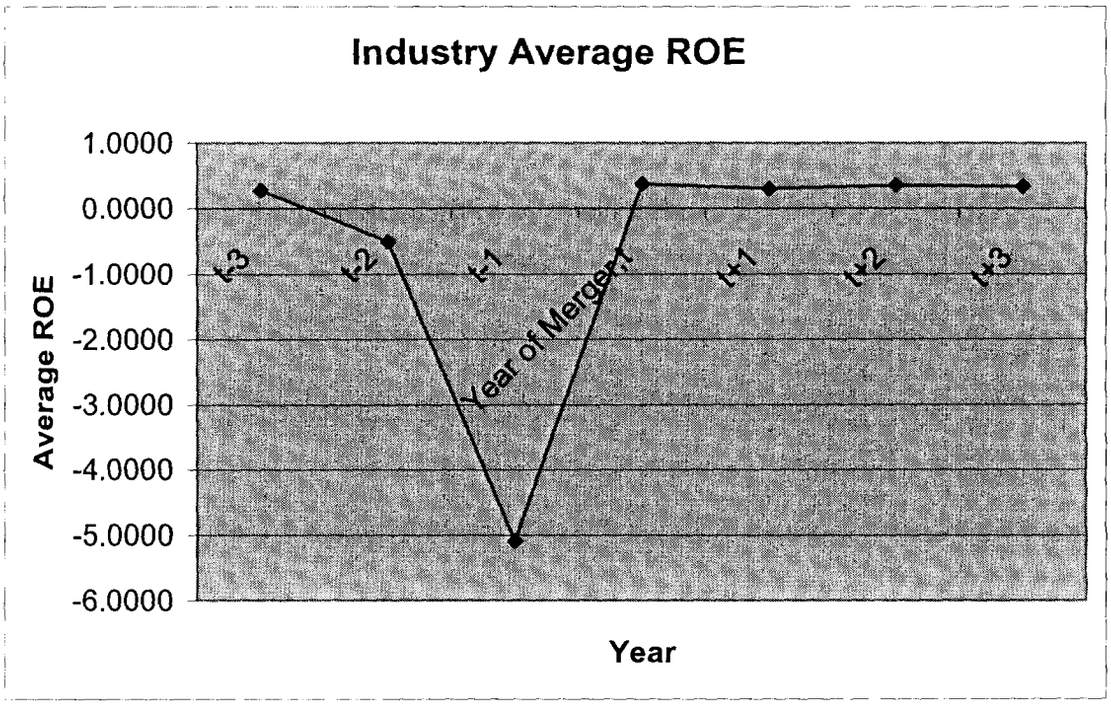
5.3 Performance Ratio – Return on Equity, ROE

The second measure is Return On Equity (ROE). Similar to ROA, ROE is a profitability ratio and this ratio measures the return on equity, which consists of ordinary shares and accumulated profit and loss. The higher the ratio signifies higher return per shareholders' fund. Table 5.2 shows that, prior to the merger, the banking industry as a whole was experiencing negative ROE, as a few banks have suffered a huge loss resulting from the financial crisis.

Table 5.2 Average ROE for Banking Industry in Malaysia, t-3 to t+3
(where t represents merger year)

Commercial Banks	t-3	t-2	t-1	Year of Merger, t	t+1	t+2	t+3
Maybank	1998	1999	2000	2001	2002	2003	2004
	0.2567	0.2749	0.3619	0.4858	0.4301	0.4666	0.4387
Bumiputra Commerce	1996	1997	1998	1999	2000	2001	2002
	0.3978	0.3831	-0.0575	0.1427	0.4164	0.3072	0.3151
RHB Bank	2000	2001	2002	2003	2004	2005	2006
	0.3132	0.2479	0.2943	0.4403	0.4330	0.0000	0.0000
Public Bank	1998	1999	2000	2001	2002	2003	2004
	0.3417	0.2651	0.3057	0.2277	0.2622	0.2928	0.4995
Arab-Malaysian Bank	1997	1998	1999	2000	2001	2002	2003
	0.3216	0.1085	-53.4686	1.2028	0.6648	0.4236	0.2517
Hong Leong Bank	1998	1999	2000	2001	2002	2003	2004
	0.3050	0.3322	0.3156	0.3705	0.2430	0.4264	0.3167
Affin Bank	1997	1998	1999	2000	2001	2002	2003
	0.1780	-1.4285	0.6030	0.1262	-0.2399	0.3287	0.2878
Alliance Bank	1998	1999	2000	2001	2002	2003	2004
	0.3179	0.2795	0.3313	0.2462	0.2657	0.2889	0.2848
Southern Bank	1997	1998	1999	2000	2001	2002	2003
	0.3140	0.2988	0.2510	0.2752	0.3187	0.3128	0.3009
EON Bank	1998	1999	2000	2001	2002	2003	2004
	0.0489	-5.7353	0.1609	0.2428	0.2469	0.3391	0.0000
Average ROE for Industry	**0.2795**	**-0.4974**	**-5.0902**	**0.3760**	**0.3041**	**0.3540**	**0.3369**

Figure 5.2: Average ROE for Banking Industry in Malaysia, t-3 to t+3



As shown in Table 5.2, the severe negative ROE in AmBank Berhad had tampered the performance of banking industry in 1999. This can be seen as a severe drop in ROE prior merger year, t in the Figure 5.2.

5.4 Performance Ratio – Cost Efficiency Ratio, CER

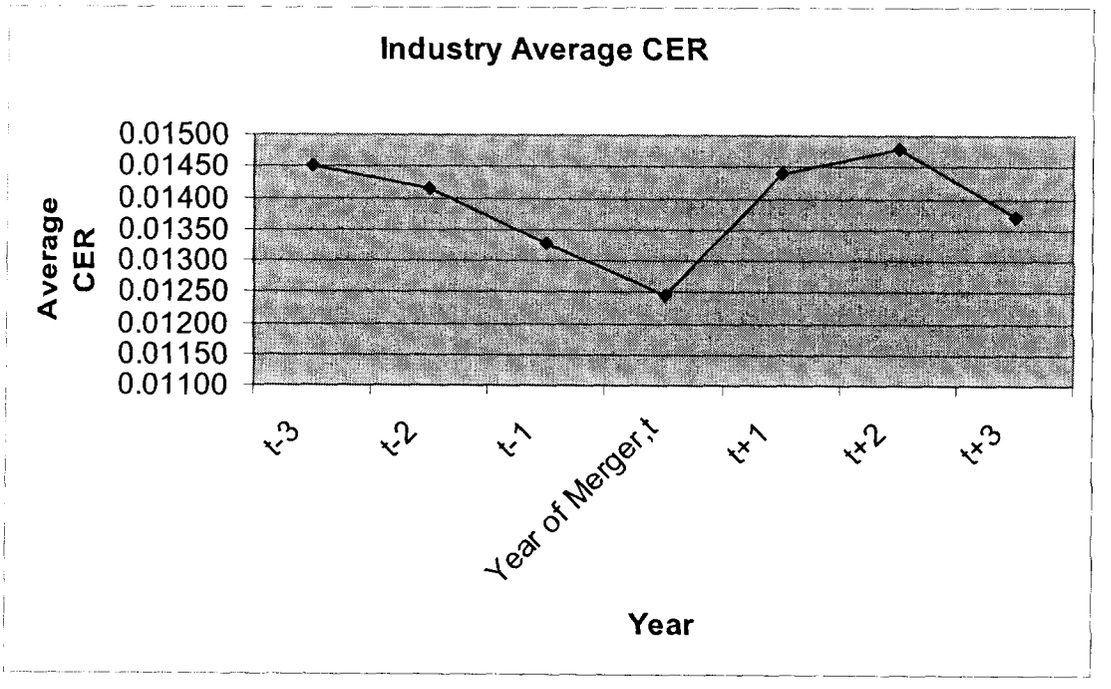
The most frequently cited motivation for bank mergers is that they improve performance by cutting costs. Hence, the cost efficiency ratio is a measure of performance and is perceived as important to find whether bank mergers result in cost savings. However, according to the argument of Berger, Demsetz, and Strahan (1999), the cost ratios that includes interest expenses subject to a problem of reduction in costs per unit of output or assets can reflect either lower interest expenses due to increased market power in setting

deposit interest rates or greater efficiency in input usage. They suggest that cost ratios that exclude interest expenses are not subject to this problem. Therefore, this study follows Cornett and Tehranian (1992) and Rhoades (1998) to examine an operating cost ratio that excludes interest expenses. As the objective of this study is to measure the cost efficiency in input usage subsequent to the merger activity, hence we use cost efficiency in terms of non-interest expenses divided by total assets.

Table 5.3: Average CER for Banking Industry in Malaysia, t-3 to t+3
(Where t represents merger year)

Commercial Banks	t-3	t-2	t-1	Year of Merger, t	t+1	t+2	t+3
Maybank	1998	1999	2000	2001	2002	2003	2004
	0.0115	0.0120	0.0124	0.0127	0.0132	0.0135	0.0138
Bumiputra Commerce	1996	1997	1998	1999	2000	2001	2002
	0.0133	0.0127	0.0129	0.0059	0.0160	0.0167	0.0157
RHB Bank	2000	2001	2002	2003	2004	2005	2006
	0.0137	0.0126	0.0134	0.0121	0.0129	0.0000	0.0000
Public Bank	1998	1999	2000	2001	2002	2003	2004
	0.0190	0.0174	0.0162	0.0145	0.0133	0.0120	0.0093
Arab-Malaysian Bank	1997	1998	1999	2000	2001	2002	2003
	0.0063	0.0070	0.0080	0.0087	0.0106	0.0126	0.0134
Hong Leong Bank	1998	1999	2000	2001	2002	2003	2004
	0.0211	0.0189	0.0126	0.0109	0.0112	0.0114	0.0115
Affin Bank	1997	1998	1999	2000	2001	2002	2003
	0.0099	0.0125	0.0137	0.0169	0.0213	0.0197	0.0182
Alliance Bank	1998	1999	2000	2001	2002	2003	2004
	0.0214	0.0181	0.0144	0.0138	0.0151	0.0156	0.0126
Southern Bank	1997	1998	1999	2000	2001	2002	2003
	0.0178	0.0178	0.0151	0.0132	0.0156	0.0164	0.0151
EON Bank	1998	1999	2000	2001	2002	2003	2004
	0.0110	0.0124	0.0141	0.0156	0.0147	0.0153	0.0000
Average CER for Industry	**0.01450**	**0.01413**	**0.01326**	**0.01244**	**0.01437**	**0.01480**	**0.01371**

Figure 5.3: Average CER for Banking Industry in Malaysia, t-3 to t+3



As can be seen in Table 5.3 and Figure 5.3, there is no improvement in CER for the entire industry after merger year, t. This finding is comparable to the results obtained by Peristiani (1993), whereby there has been no improvement in cost efficiency following bank mergers. However, there is a slightly decrease in CER moving from the pre merger to post merger period.

5.5 Analysis for the Ten Anchor Banks

5.5.1 Public Bank Berhad

As shown in Figure 5.4 and Figure 5.5, both the ROA and ROE for Public Bank Berhad (PBB) have a similar pattern. As the performance is proxied by ROE or ROA, we note that PBB's performance in the pre merger period was not stable. However, after the merger exercise, PBB enjoyed an increasing ROA and ROE, year t onwards.

Figure 5.4: Average ROA for Public Bank Berhad, 1998-2004

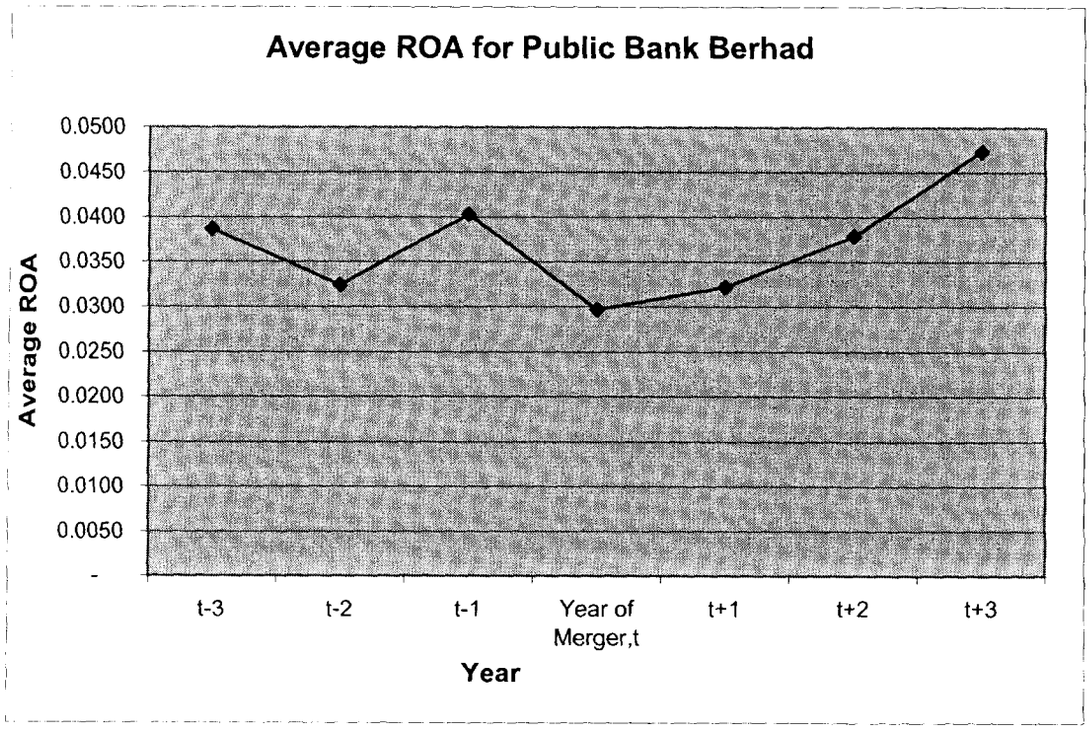
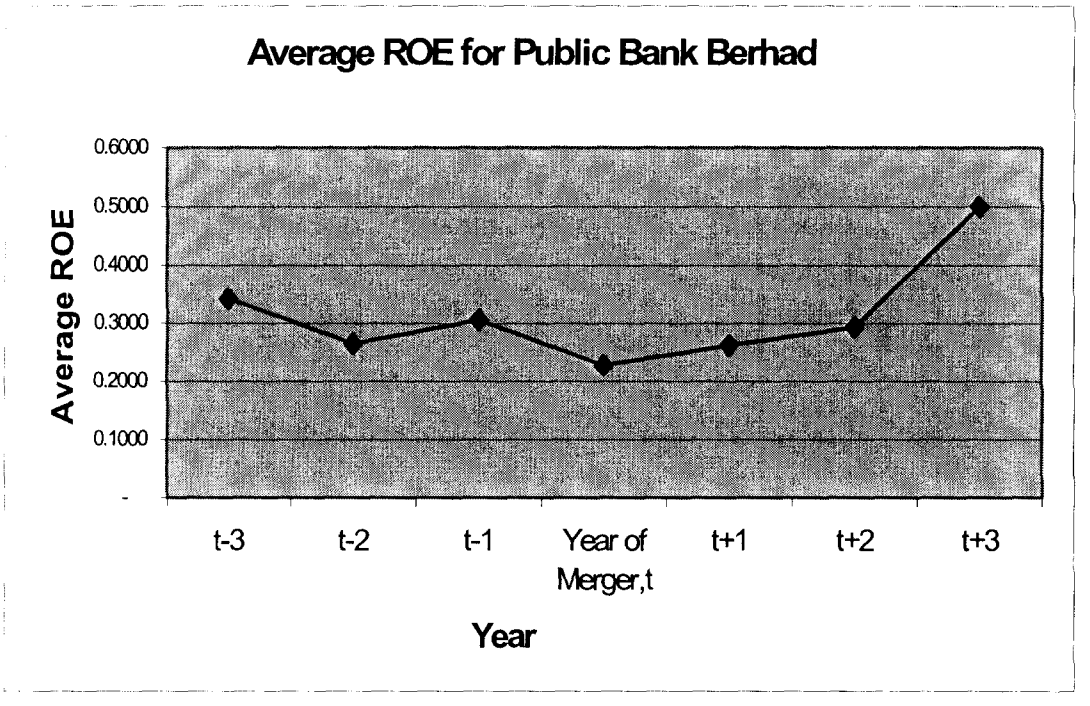


Figure 5.5: Average ROE for Public Bank Berhad, 1998-2004



The effect of managerial synergy from the merger exercise allows PBB to further concentrate on the fee-based income for example, cash management services, trade bills business, sales of unit trusts and share investment facilities. The net income of the bank grew by 92 per cent to RM4.2 billion in 2004 compared to RM2.19 billion in 2003.

In order to further harness gain from business synergies resulting from the merger activity, PBB enhance customer convenience and reduce transaction costs by implementing the *PBeBank.com.* PBB further expanded its scope of services to corporate customers. This is one of the fruitful results from the merger that had enabled PBB to enjoy the effect of differential efficiency.

Figure 5.6 Average CER for Public Bank Berhad, 1998-2004

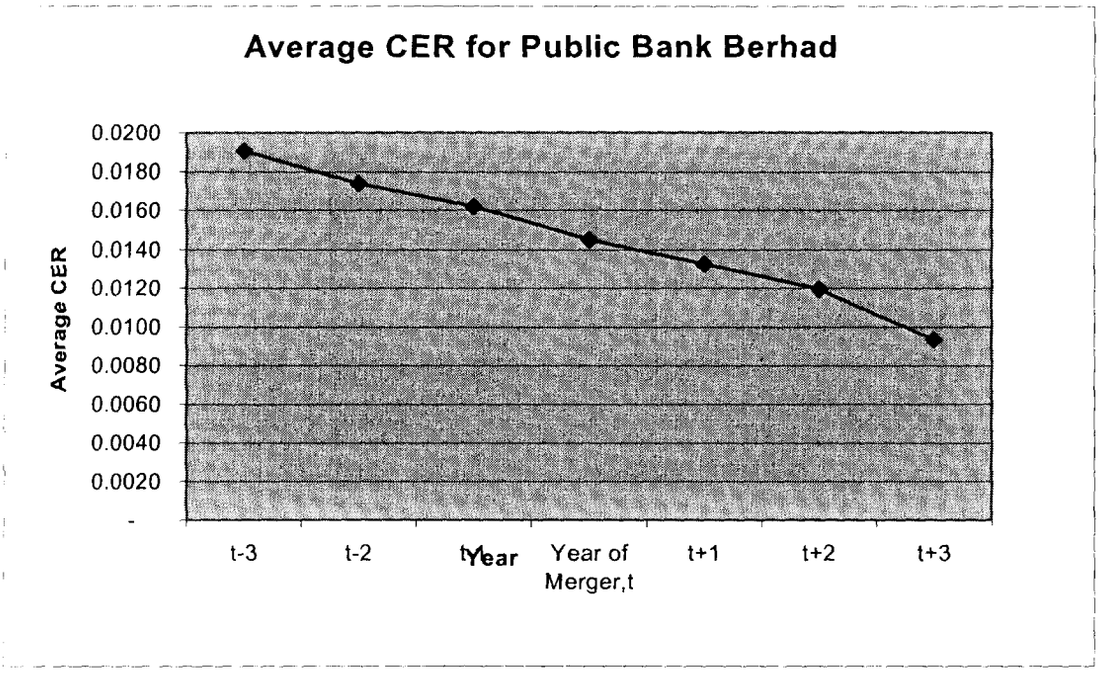
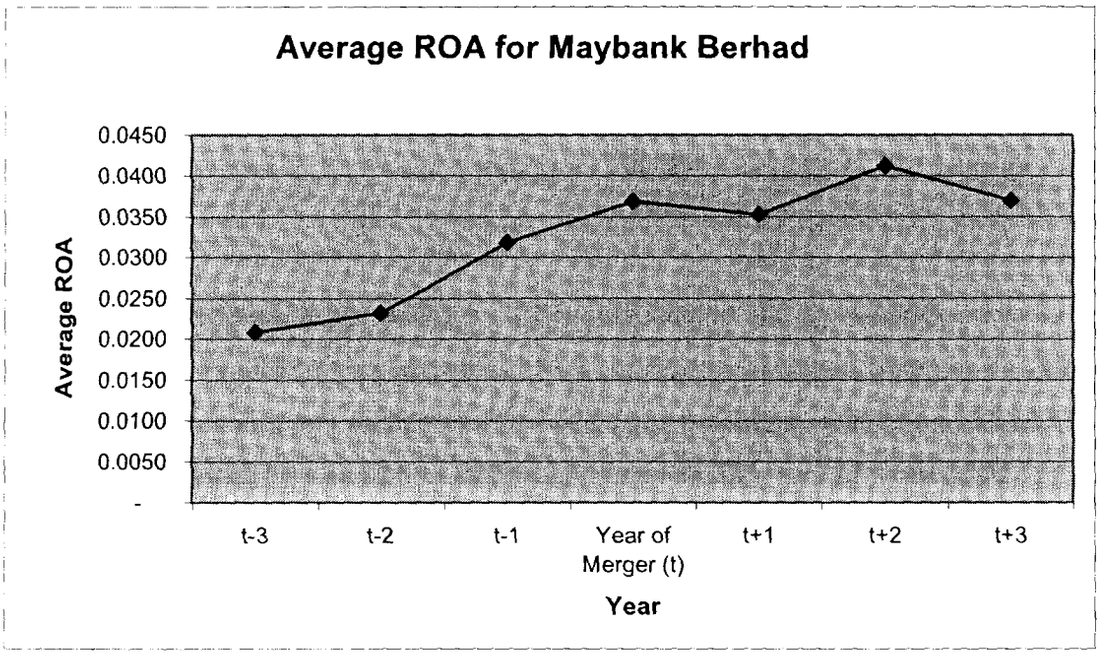


Figure 5.6 shows a downward trend of average CER for Public Bank Berhad from pre merger period to post merger period. The further decrease in CER after the merger implied better asset utilisation thus cost efficiency. The optimum utilisation of resources in PBB due to operating synergy from the merger was achieved with competitive pricing, innovative product packaging, pro active product enhancement as well as improved loan service delivery standards, which includes fast approval turnaround time, efficient documentation and disbursement processes.

5.5.2 Malayan Banking Berhad

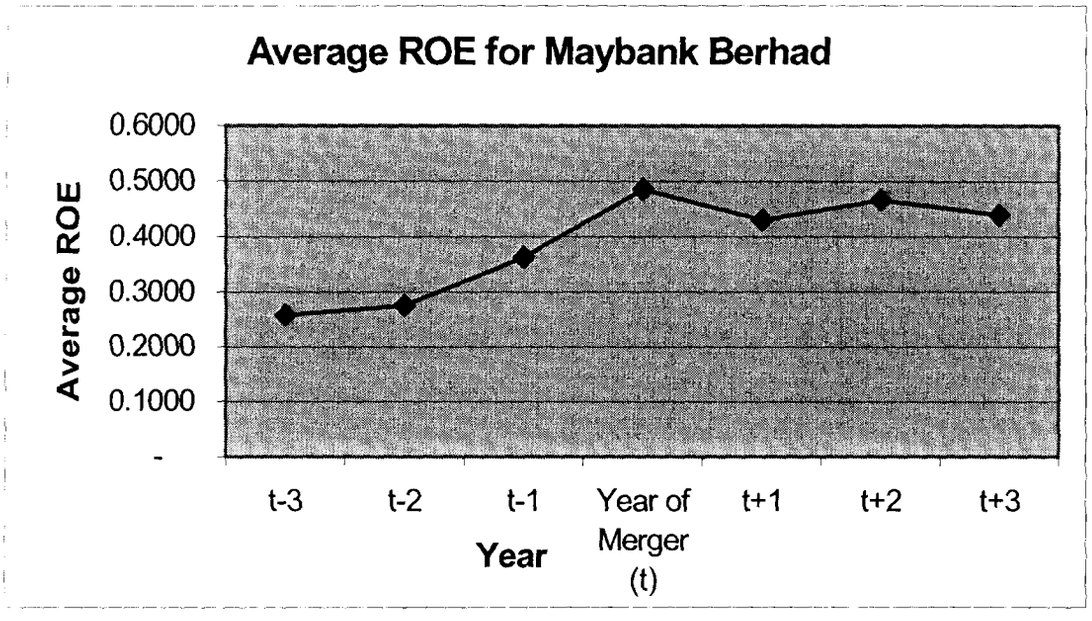
Our results show that Maybank Berhad (MBB) has the opposite results as compared to Public Bank Berhad for both ROA and ROE in the pre merger period. A fluctuating outlook was seen after the merger as shown in Figure 5.7 and Figure 5.8. What came as a surprise was that CER for MBB shown a steady upward movement, as shown in Figure 5.9.

Figure 5.7: Average ROA for Maybank Berhad, 1998-2004



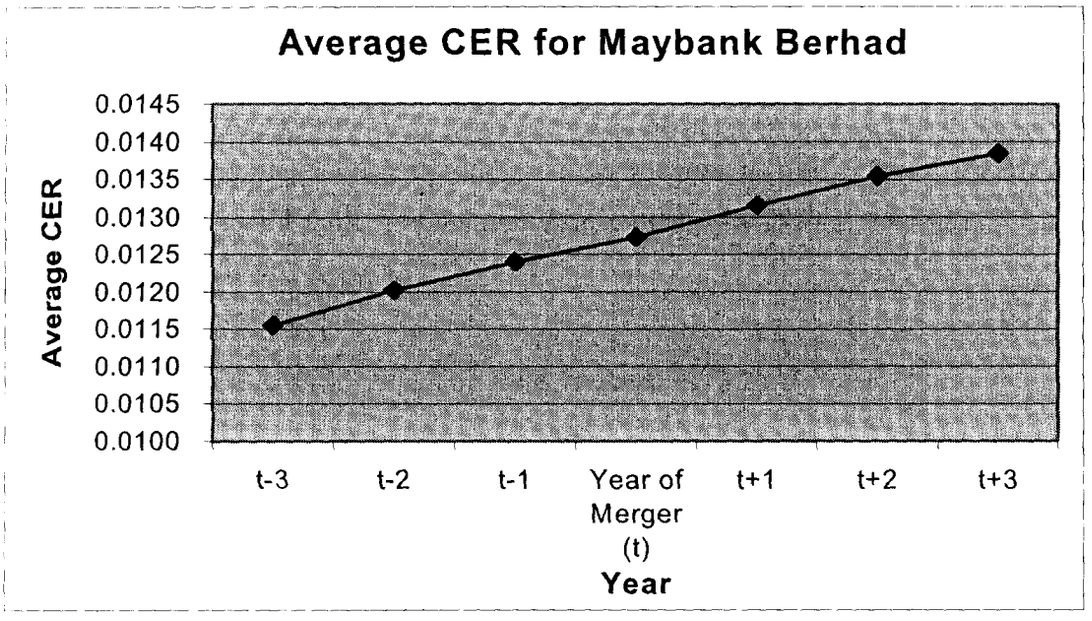
However, this is not concrete enough to draw a conclusion that MBB does not enjoy the benefit of merger as PBB does. The fluctuating trend in the post merger performance, which is proxied by ROA and ROE was due to reduction in the net loan and advances, lower margin, bigger asset base from merger of PhileoAllied Bank Berhad and Pacific Bank Berhad as well as higher shareholders fund from the shares issued under the ESOS.

Figure 5.8: Average ROE for Maybank Berhad, 1998-2004



The poor cost efficiency measured by CER was due to the tremendous increase in overhead expenses. The higher growth of 14.9 per cent in overhead costs for the MBB was mainly due to a much higher cost of business acquisitions, marketing, advertising and promotional expenses as well as further investments made for the future such as staff training, development and technology.

Figure 5.9: Average CER for Maybank Berhad, 1998-2004



Despite its weak financial ratio, MBB still stands out as the leading domestic bank in Malaysia. In fact, MBB has been enjoying the advantages of the merger activities in a non-empirical way. This can be seen in all the awards that MBB has won, especially in post merger period. MBB has added on its display shelf Global Finance Award for Best Consumer Online Securities Trading in Asia Pacific in year 2002, Global Finance Award for Best Internet Bank in Malaysia Finance in year 2001 and other accolades.

5.5.3 Southern Bank Berhad and Alliance Bank Berhad

As per Figure 5.10, Figure 5.11, Figure 5.12, Figure 5.13, Figure 5.14 and Figure 5.15, Alliance Bank Berhad (ABB) and Southern Bank Berhad (SBB) post a similar trend for ROA, ROE and CER in pre and post merger. In fact, results show that the pattern of their ROA, ROE and CER post merger exercises are quite similar as well. There is an upward movement for these performance ratios two year immediately after merger year, t, but a dramatic drop is seen in year t + 3.

Figure 5.10: Average ROA for Southern Bank Berhad, 1997-2003

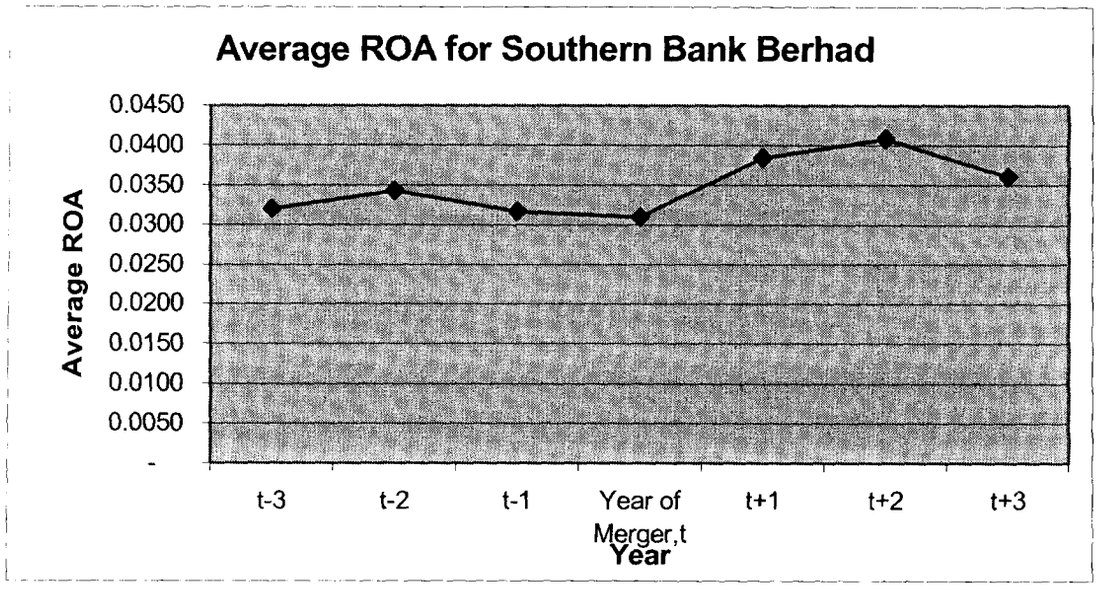


Figure 5.11: Average ROE for Southern Bank Berhad, 1997-2003

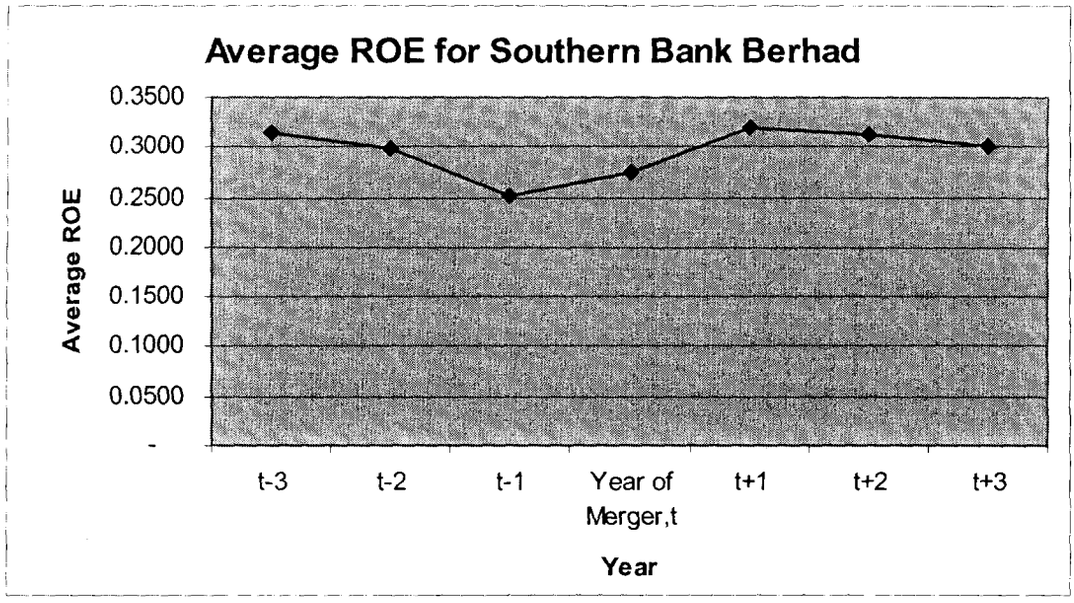


Figure 5.12: Average CER for Southern Bank Berhad, 1997-2003

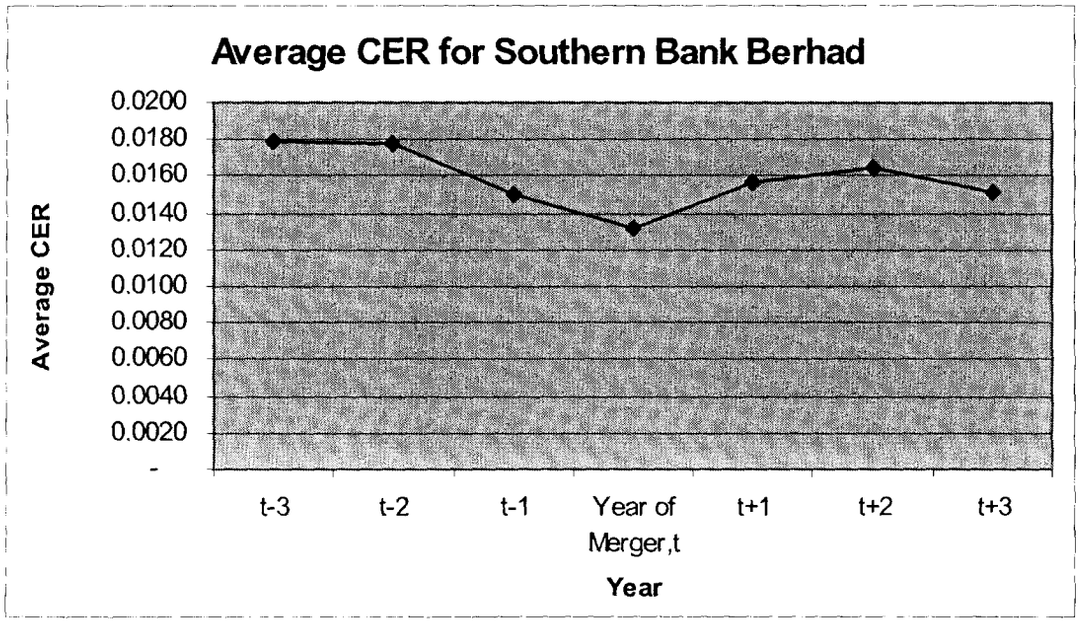


Figure 5.13: Average ROA for Alliance Bank Berhad, 1997-2003

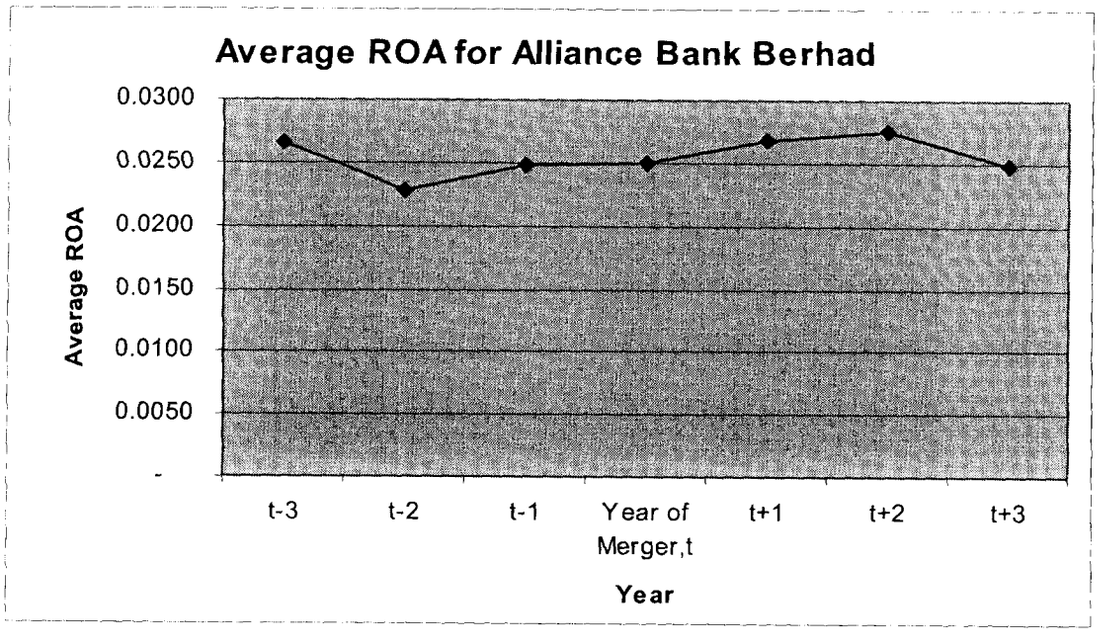


Figure 5.14: Average ROE for Alliance Bank Berhad, 1997-2003

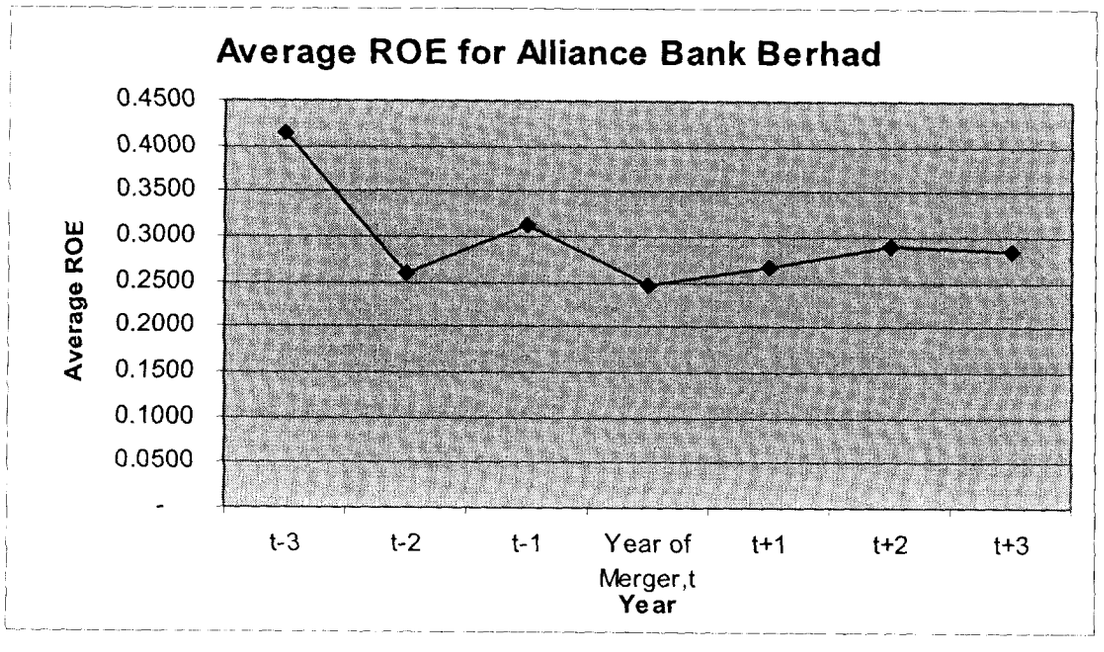
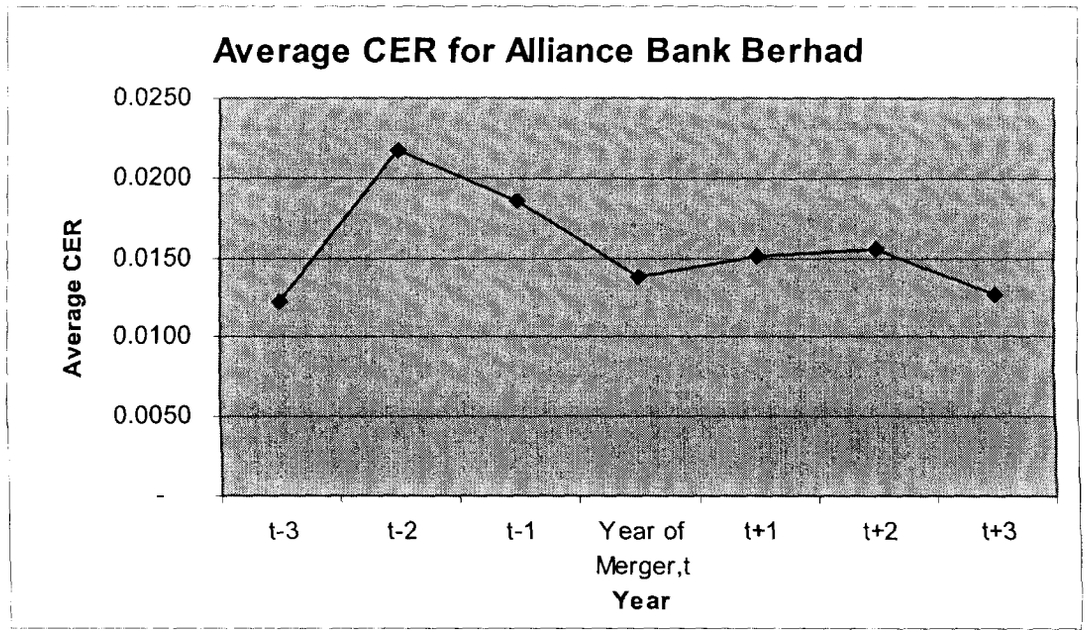


Figure 5.15: Average CER for Alliance Bank Berhad, 1997-2003



The upward trend for both ROA and ROE prove that the integration of the banking operations with their respective merger partners have successfully boosted the performance through operational and managerial synergy.

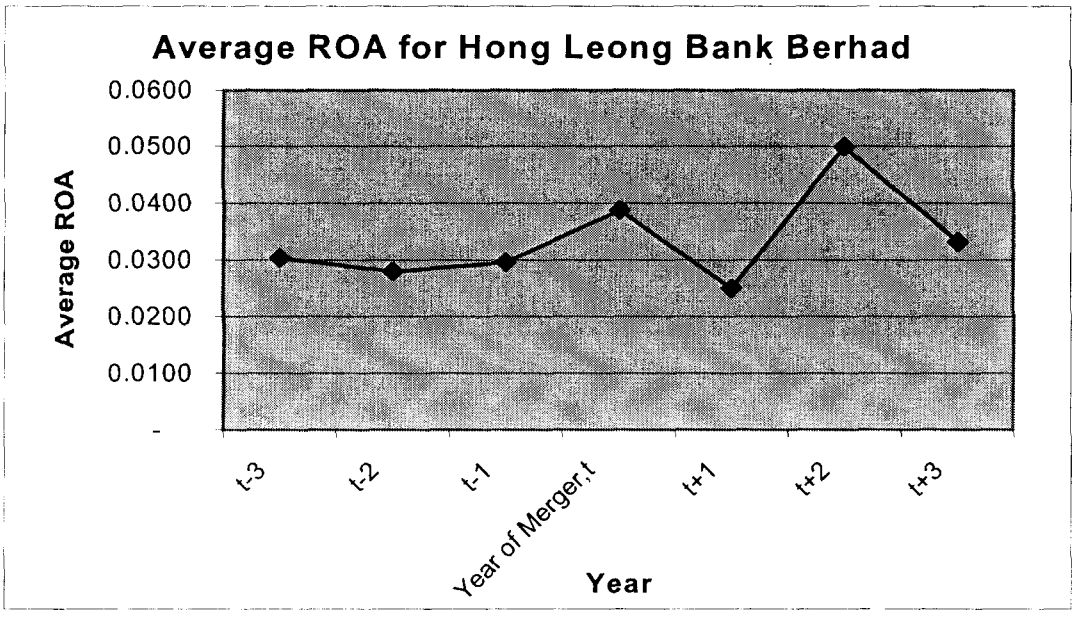
However, the poor cost efficiency in the post merger period as shown in Figure 5.12 and Figure 5.15, as depicted by the upward trend of average CER was affected by the reduction banks' staffing through Voluntary Separation Scheme (VSS). SBB and ABB incurred a significant one-off non-recurring expense on VSS in relation to the mergers. For xample, SBB's staffing was brought down by 13 per cent through a VSS.

At the same time, positive results via a decrease in CER in year t + 3 was caused by the aggressive capitalising on the information technology. The launch of Internet Banking in the merger year had improved the operational efficiency for both SBB and ABB.

5.5.4 Hong Leong Bank, Affin Bank and Bumiputra-Commerce Bank Berhad

Results for Hong Leong Bank (HLB), Affin Bank (AB) and Bumiputra-Commerce Bank (BCBB) are hard to conclude as they fluctuate over the period of studies.

Figure 5.16: Average ROA for Hong Leong Bank Berhad, 1998-2004



ROA and ROE shows signs of improvement in bank performance before the merger exercise. However, after the mergers, results fluctuate and this it is difficult to ascertain if mergers brought along improvement in terms of bank performance. This can be seen in Figure 5.16, Figure 5.17, Figure 5.19, Figure 5.20, Figure 5.21 and Figure 5.22.

Results show, per Figure 5.18, that HLB's CER has improved over the period of studies. Only a slight increase was seen after the merger year, t. After merger, the managerial

efficiency enable HLB to utilised their resource optimally and subsequently generate favorable cost efficiency.

Figure 5.17: Average ROE for Hong Leong Bank Berhad, 1998-2004

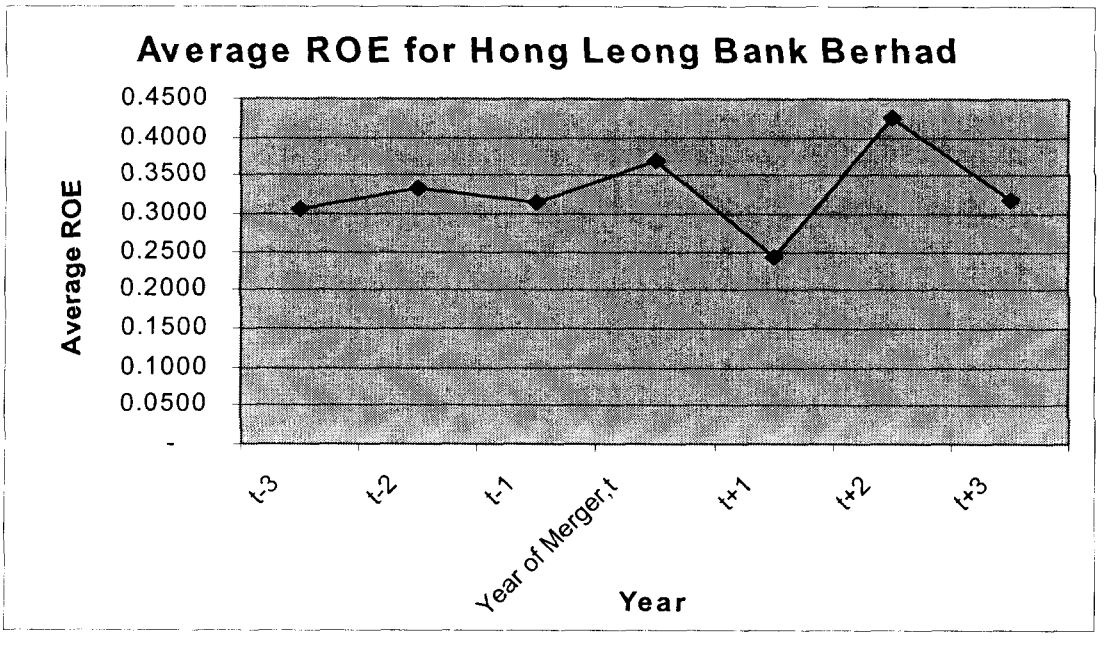


Figure 5.18: Average CER for Hong Leong Bank Berhad, 1998-2004

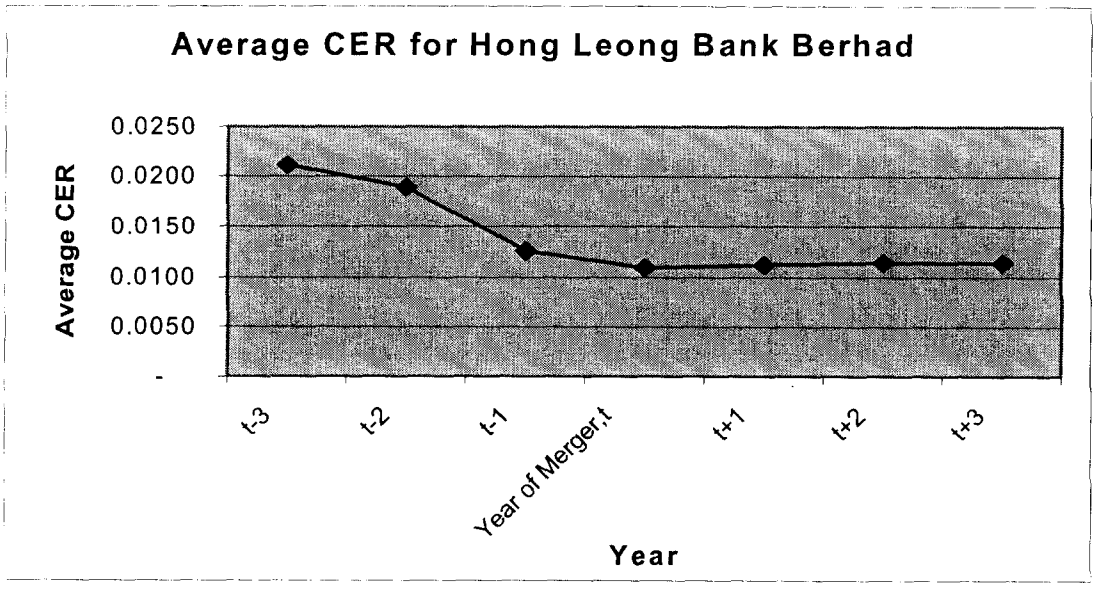


Figure 5.19: Average ROA for Affin Bank Berhad, 1997-2003

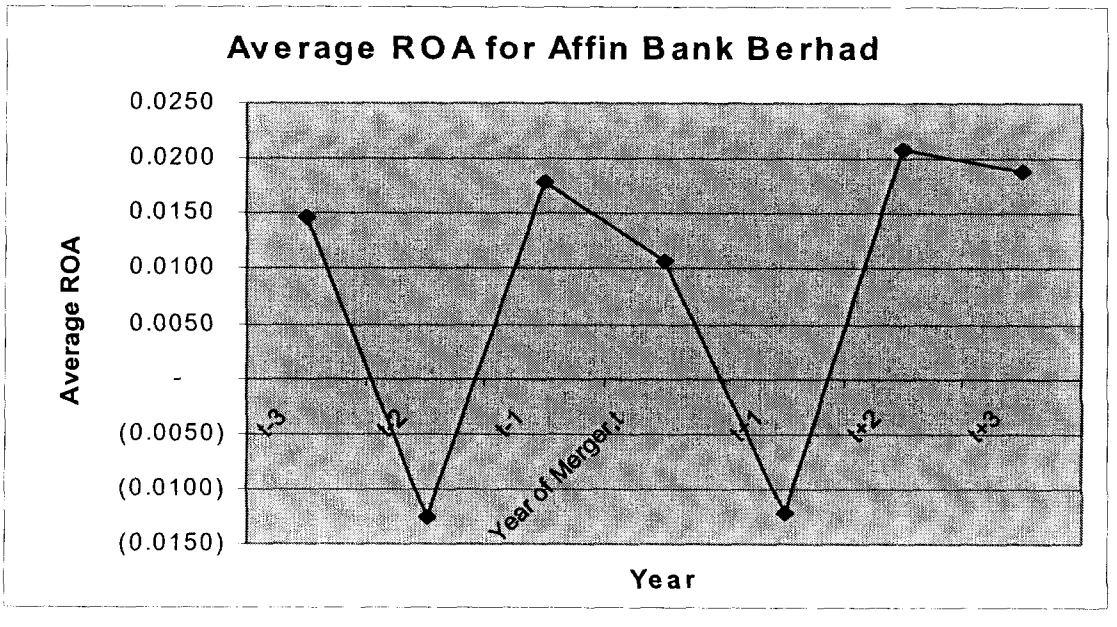


Figure 5.20: Average ROE for Affin Bank Berhad, 1997-2003

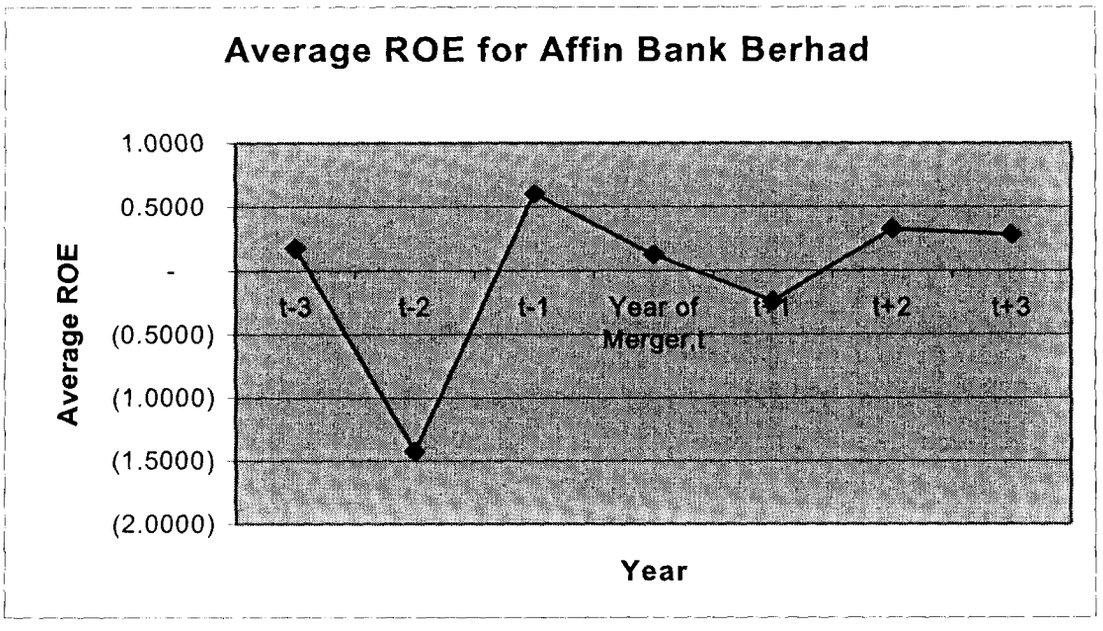


Figure 5.21: Average CER for Affin Bank Berhad, 1997-2003

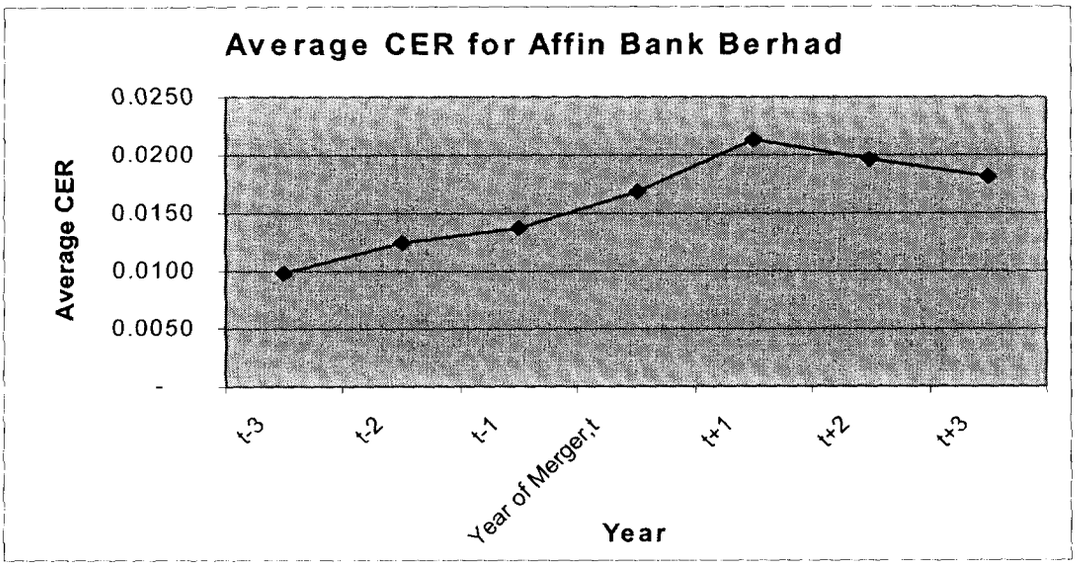


Figure 5.22: Average ROA for Bumiputra-Commerce Bank Berhad, 1996-2002

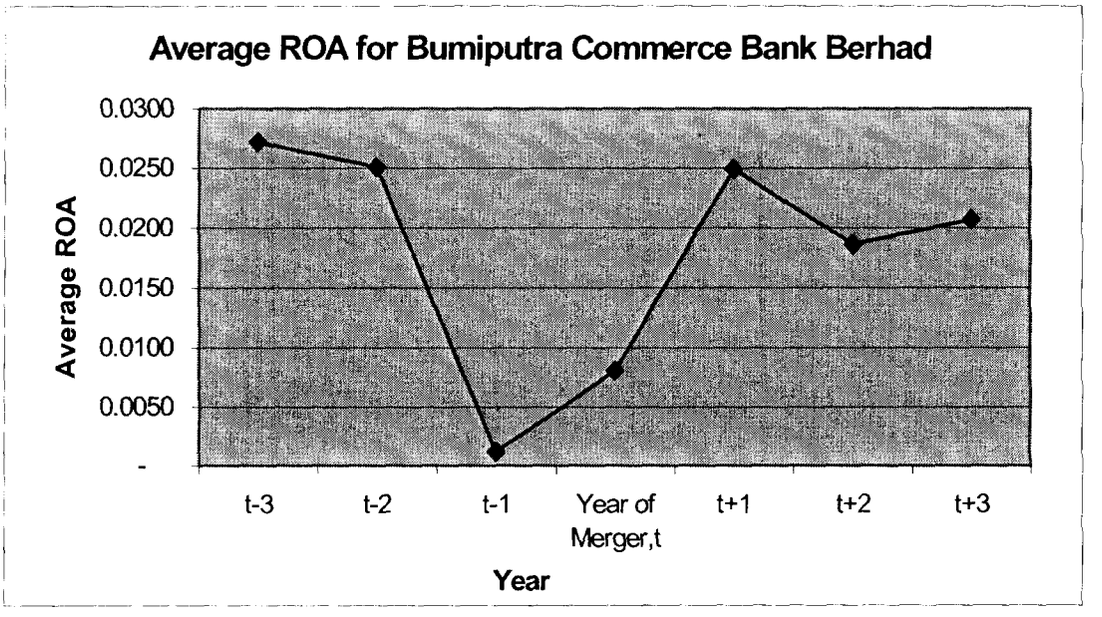


Figure 5.23: Average ROE for Bumiputra-Commerce Bank Berhad, 1996-2002

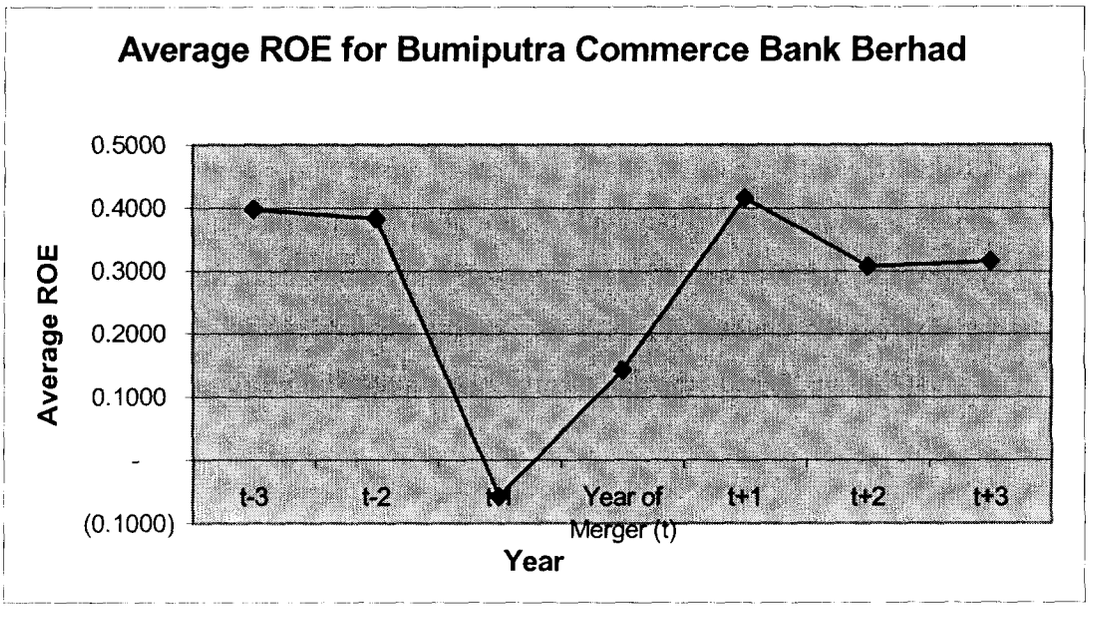
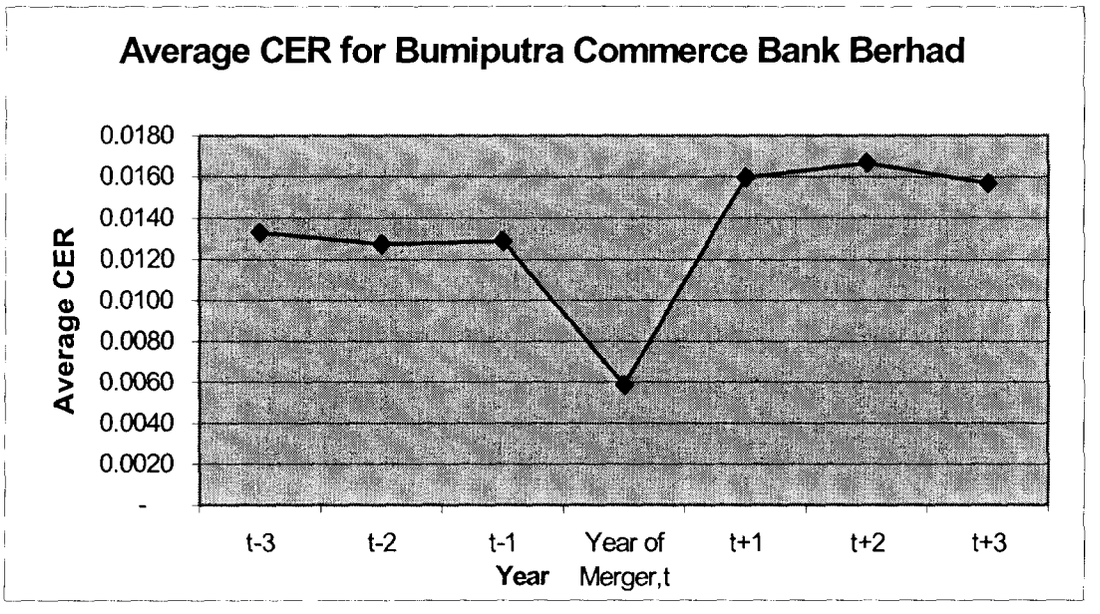


Figure 5.24: Average CER for Bumiputra-Commerce Bank Berhad, 1996-2002



In summary, performance effects measured by employing financial ratios are mixed. ROA is conventionally considered a better indicator of bank's efficiency in asset management, which is consistent with our studies, where as ROE is a more direct measurement of return to stockholders.

Our results displayed a fluctuation of average ROA for banking industry after the merger period, as shown in Table 5.1 and Figure 5.1. This indicates that there is no clear picture of relation between performance and bank mergers. The more stable and positive average ROE after merger for the banking industry, as shown in Table 5.2 and Figure 5.2 indicate improvement in managing the method of financing by the banks' management team.

Our result is consistent with those reported by Cornett and Tehranian (1992). In their argument, the efficient management's choice of debt versus equity financing, which is measured by ROE, rather than the efficient management of assets, which is measured by ROA, is the reason that triggers the merger activities. Therefore, merger activities are

expected to bring an improvement in accounting measures of profitability in terms of ROE, not ROA, for the banking industry as a whole.

The empirical results showed that bank mergers failed to improve cost efficiency of the overall banking industry, as shown in Table 5.3 and Figure 5.3. As Malaysia domestic bank mergers are still at the beginning phase, the one time incurred expenses, for example, VSS and capitalisation of expenses, specifically technology expenses have yet to generate fruitful result for the banking industry as a whole.

5.6 Conclusion

From the result of our research, we can conclude that in the context of Malaysian bank mergers, the improvement in ROE shows that domestic banks are more efficient in deciding the choices of debt against equity financing than management of assets.

With the limitation of the short time frame of study and unavailability of some of the financial data for the period of study, our results may not depict or accurately reflect the performance of the Malaysian bank mergers.

Next chapter highlights some pertinent recommendation which affect the performance of the domestic banks, which is not due to bank mergers solely.