

# **THE MALAYSIAN EMPLOYEES PROVIDENT FUND'S MEMBERS' INVESTMENT SCHEME: SURVEY OF FUND SELECTION, PERFORMANCE AND PERCEPTIONS**

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## **Abstract**

This study examines whether the Employee Provident Fund members investment scheme (EPF-MIS) introduced by EPF could provide better performance than the EPF retirement plan itself. Statistics have revealed that the average retirement savings of EPF members currently are inadequate and many members may find themselves with insufficient funds if the issue of adequacy of savings is not addressed. To partly address the above-mentioned issues, EPF introduced the investment withdrawal scheme in 1996 to enhance retirement savings. However, participating members were concerned when it was reported that members had suffered losses of about RM600 million in unit trust investments, contradicting the good performance of the unit trust funds industry. Thus, this paper attempts to revisit these issues by conducting a structural survey analysis on EPF members' investment in unit trusts, based on strategies, unit trust performance and members' perceptions. This study involved 310 respondents, covering all states in Malaysia. Collectively, findings revealed that members' experiences of investment performances in unit trusts were mixed. The highest return on members' investment was 10% and lowest return was negative 5%. This provides evidence to show that there are possibilities of the participating members' earnings falling below the 2.5% guaranteed minimum return for EPF. From the opportunistic point of view, there are also possibilities for members to generate higher returns than the average performance of EPF investment of 5% with appropriate fund selection strategies as discussed in this paper. It is concluded that members' investment

performance is influenced by their level of knowledge of unit trust investment, information source as well as fund selection criteria. Additionally, financial consultants play a critical role in assisting EPF members with their investment decision making, since the majority of them are relying on services and advice rendered by financial consultants. Recommendations are drawn on EPF members' perceptions and industry best practices, and given for future research.

**Keywords:** *Employees Provident Funds, Members Investment Scheme, Unit Trust, Performance and Perceptions, Structural Survey Analysis*

## **INTRODUCTION**

### *Research Background and Rationale*

This study concerns an area of interest to all Employees Provident Fund (EPF) members on their decisions related to the effective management of their EPF retirement fund in the light of the change in life expectancy and accelerating cost of living. According to <sup>2</sup>Lau (2007), today, less than 5% of Malaysians are prepared for retirement, and they fail to take into consideration inflation rates and rising medical costs. <sup>3</sup>Keng and Ong (2001), argued that, with regard to retirement financial planning, most working Malaysians are depending on monthly contribution to EPF, with an average contribution rate of around 23% (i.e employee – 11% and employer 12%) of their gross salary every month to their retirement savings with EPF.

The historical dividend rate payment of EPF to its members has been relatively low, averaging at 5.89% for the past 55 years (<sup>4</sup>EPF dividend rates between 1952 and 2009) and <sup>5</sup>Azlan (2008), states that the average retirement savings for EPF members currently are inadequate and with Malaysians having a longer life span as well as inflation and escalating medical costs, many members may find themselves with insufficient funds if the issue of adequacy of savings is not addressed. In addressing the above-mentioned issues, EPF introduced the investment withdrawal scheme which was launched in November 1996. <sup>6</sup>Lock (2001) argues that the scheme has brought notable advantages. First, it gives members the prospect of higher returns on fund savings for old age. Second, it enables members' savings to grow faster. Third, it gives members more control over the management of their retirement savings. Last but not least, in being allowed to invest through more than one approved fund management company, investing members can spread out their investment risks.

However, there were some concerns after the publication of <sup>7</sup>two articles in Utusan Melayu dated 6 and 7 August 2006. The articles reported that EPF members had suffered losses of about RM600 million in unit trust investments

but there was no evidence provided to support this statement. In response, <sup>8</sup>Ya'acob (2006) from Federation of Malaysian Unit Trust, stated that, a quick survey among some members indicated that wholesome investors had lost money, the percentage quoted (80 percent) remained unsubstantiated. Additionally, the industry players have questioned the accuracy of the numbers, pointing out that no industry statistics have been maintained since the EPF Members Investment scheme was launched in 1996. Contradicting the above statement, <sup>9</sup>Lipper Fund Rankings (2010) reported that as at 30th August 2010, the average return from Malaysian conventional equity funds for 5 years was 58.97%, 3 years, 3.68% and 1 year, 15.61%, all of which were well above the historical average of the dividend of 4.95% EPF paid out to members (2001-2009).

Based on the above information, we were motivated to conduct this research involving a survey of EPF members with the objective of providing empirical evidence on EPF members' participation and experience with unit trust investment schemes. Specific research objectives are as follows:

1. Survey of EPF members' awareness and retirement financial planning approaches;
2. Profiling the EPF members' retirement savings conditions;
3. Survey on EPF members awareness of and participation in the investment withdrawal scheme;
4. Analysis of members' investment in unit trust funds with specific attention to fund selections, investment performance and perceptions. The findings would also provide some insights into the current problems encountered by the regulators, industry players and most important, to the EPF members' in managing their retirement savings towards securing financial security in old age.

The next section presents the empirical findings from a review of related literature. Section III describes the research methodology specifically data collection and data analysis methods. Section IV, presents the results and discussion of the structured questionnaire analysis. Finally, Part V summarizes and concludes this research paper.

### *Review of the Private Retirement Funds in Malaysia*

The employee Provident Fund (EPF) is a social security institution formed according to the Laws of Malaysia, EPF Act 1991 (Act 452) which provides retirement benefits for members through management of their savings in an efficient and reliable manner. EPF investments are carried out based on guidelines approved by the EPF Investment Panel as well as the Minister of Finance in selected cases. Under Section 27 of the EPF Act 1991, the guaranteed minimum dividend rate is 2.5% per year on members' savings.

Although the returns on such instruments are quite low, the principal value of members' contribution is guaranteed.

Empirical evidence revealed that EPF invests more than 75% of its investment funds in instruments closely linked to trends in the interest market rate, notably Malaysian government securities (MGS), followed by corporate loans/bonds, stocks and money market instruments. Looking at the trend for the past 10 years, it is clear that EPF asset allocation has undergone several changes particularly in investment in MGS. EPF, in managing its investment risks, will ensure that its investments are in line with the defined tactical asset allocation strategy. With the set benchmark, EPF funds will be distributed in a tactical manner, depending on the interest rate and risk profile for each asset class. As the market interest rate was at a low rate during the past few years, the returns on EPF investments were also affected. Based on EPF annual report FYE 2006, historically, the lowest dividend declared was 2.5% in the 1952-1959 period, while the highest dividend, 8.5%, was paid in the 1983-1987 period. Thereafter, the EPF dividends were on a declining trend, as testified by the latest 5 years average (2005-2009) dividend paid, which was only 5.22%. Over a nine-year period, (i.e 2001-2009), EPF on average invested 67.16% in fixed income securities instruments namely in Malaysian government securities, loans and bonds, 22.12% in equities, 9.23% in money market instruments and 0.59% in real properties market. Higher allocation on low risk instruments is consistent with their prudent investment philosophy to protect members' savings for retirement funds.

Table 1.1: Statistical Summary of EPF Investment Asset Allocations

Year	Total	MGS		Loans & Bonds		Equities		Money Market		Property	
		RM	(%)	RM	(%)	RM	(%)	RM	(%)	RM	(%)
2001	184.58	68.34	37.02	44.80	24.27	40.62	22.01	29.51	15.99	1.31	0.71
2002	199.39	72.98	36.60	52.80	26.48	45.66	22.90	26.49	13.29	1.46	0.73
2003	217.06	84.68	39.01	62.57	28.83	47.11	21.70	21.35	9.84	1.35	0.62
2004	237.10	92.54	39.03	74.39	31.37	47.42	20.00	21.25	8.96	1.50	0.63
2005	259.91	97.81	37.63	94.30	36.28	49.63	19.10	16.58	6.38	1.59	0.61
2006	285.92	98.70	34.52	100.24	35.06	54.90	19.20	30.43	10.64	1.65	0.58
2007	313.01	103.3	33.03	121.55	38.86	66.88	21.38	19.26	6.16	1.78	0.57
2008	342.01	96.16	28.12	137.25	40.13	87.95	25.72	19.03	5.56	1.62	0.47
2009	371.26	63.11	17.00	152.96	41.20	100.43	27.10	23.21	6.25	1.55	0.42
Average			33.55		33.61		22.12		9.23		0.59

Source: EPF Annual Report (2001-2009)

On the investment return, based on table 1.2 below, EPF generated an average investment return of 8.45% per annum from 2001 to 2009. At the same time

they paid an average yearly dividend rate of 4.95% per annum. This is translated into an average yearly dividend payout of 0.66%.

Comparing the historical EPF's 9- year average dividend of 4.95% per annum (2001 – 2009) and 5- year unit trust funds average returns (2005 – 2009), it could be seen that investment in unit trust funds generated good returns across categories of funds. Equity funds generated the highest average return of 58.97%, bond funds generated a moderate return of 21.56% and money market funds generated an average return of 10.22%. Detailed analysis of unit trust performance in Malaysia will be explained in the other sections of this paper.

Table 1.2: Statistical Summary of EPF Return on Investment and Dividend Rate

Year	Total Assets (RM Billion)	Total Investment (RM Billion)	Total Return ( %p.a )	Dividend Rate (%p.a)	Dividend Ratio (%p.a)	Inflation Rate (%p.a)	Real Return (%p.a)
2001	187.02	184.57	3.08	5.00	1.62	1.40	3.60
2002	202.18	199.39	8.03	4.25	0.53	1.80	2.45
2003	220.16	217.05	8.86	4.50	0.51	1.20	3.30
2004	240.36	237.11	9.24	4.75	0.51	1.40	3.35
2005	263.83	259.91	9.62	5.00	0.52	3.00	2.00
2006	290.21	285.92	10.01	5.15	0.51	3.00	2.15
2007	318.29	313.01	9.40	5.80	0.62	2.00	3.80
2008	346.12	342.01	9.26	4.50	0.49	5.40	-0.90
2009	375.46	371.26	8.55	5.65	0.66	0.60	5.05
<i>Average</i>			<i>8.45</i>	<i>4.95</i>	<i>0.66</i>	<i>2.20</i>	<i>2.38</i>

Source: EPF Annual Report (2001-2009) and BNM Report

Table 1.3 summarizes the members' retirement fund statistics for the period of 2001 to 2009. This latest 9 years record shows that there is continuous improvement in EPF members' average savings at the retirement age of 54 years old. EPF's objective is to enable members to accumulate a minimum of RM120,000 savings at retirement age. As at end-2009, male members managed to surpass the target with an average savings of RM159,252.85, while, female members accumulated only RM101,694.63, below the targeted threshold level. Is this amount sufficient for funding life expenses after retirement? This question remains debatable and many argue that this amount will not last long and is not sufficient to fully finance life expenses post retirement. On these premises, the authors were motivated to study the efficiency of these two retirement plans.

Table 1.3: Active Members' Average Savings at Age 54

Year	Male			Female		
	No. of Members	Total Savings (RM)	Average Savings (RM)	No. of Members	Total Savings (RM)	Average Savings (RM)
2001	25,535	2,289,377,130.42	89,656.44	10,146	467,759,686.81	46,102.87
2002	24,823	2,522,229,750.89	101,608.58	10,156	570,939,118.45	56,216.93
2003	27,342	2,887,880,477.55	105,620.67	11,896	737,951,939.80	52,033.62
2004	27,490	3,100,573,810.02	112,789.15	12,045	815,279,414.25	67,686.13
2005	29,342	3,583,920,639.26	122,143.02	13,539	1,001,462,777.08	73,968.74
2006	32,482	4,208,471,625.54	129,563.19	14,955	1,218,571,361.80	81,482.54
2007	32,557	4,522,020,101.65	138,895.48	15,944	1,354,532,480.79	84,955.62
2008	35,415	5,332,180,263.65	150,280.40	17,607	1,705,344,177.95	96,856.03
2009	36,387	5,794,733,416.85	159,252.85	18,552	1,886,638,751.19	101,694.63

Source: EPF Annual Reports (2001-2009). Note: active members refer to members who continued to pay contributions.

#### *Analysis of EPF Investment Withdrawal Scheme and Members Participations*

EPF allows qualified members to make their own investment using part of their EPF savings for

potentially higher returns. A scheme of some promise for EPF members with large savings was launched in November 1996. Under the scheme, fund members who have a balance in excess of RM50,000 in their Account I (the EPF savings for retirement years) are offered an alternative means of investing excess funds through fund management institutions approved by the Minister of Finance. Prior to this, all funds mobilized and held by the EPF were invested only by the EPF. This alternative has therefore opened up possibilities of higher returns on the savings of those members eligible and willing to take advantage of this scheme. The most important thing to note about the scheme is that all of members' investments held by the fund management company together with all the returns on them remain part of the member's Account I and will not be allowed to be withdrawn before the member reaches the pre-determined retirement age of 55.

Effective 1 November 2007, EPF under its "Beyond Savings" strategic initiative amended the member's investment withdrawal eligibility. A member needs to have a basic savings amount at the predetermined age levels. Any amount in excess of the basic savings can be invested in products offered by appointed external fund managers. This new structure allows members to participate in the investment withdrawal scheme at a much earlier age than before. Amounts in excess of the 'basic sum' can be invested in products offered by approved Investment Institutions. Investment withdrawals are

applicable to members who have savings of at least RM5,000 more than the basic savings required in Account I, and have not reached 55 years of age. For qualified members, they can invest part of this savings in unit trusts through external fund managers appointed by the Ministry of Finance. The amount of savings that can be invested must not be less than RM1,000 and not more than 20 per cent of the amount exceeding the required basic savings in Account I. Investments can be made at intervals of three months from the date of the last transfer, subject to the availability of the required balance in the Account. Basic Savings is an amount of savings to be put aside in Account I progressively at various pre-determined age levels so as to enable a member to accumulate a minimum savings of RM120,000 at age 55 years.

Table 1.4: Basic Saving Amount

Age	Basic Savings	Age	Basic Savings	Age	Basic Savings
18	1,000	31	20,000	44	59,000
19	2,000	32	22,000	45	64,000
20	3,000	33	24,000	46	68,000
21	4,000	34	26,000	47	73,000
22	5,000	35	29,000	48	78,000
23	7,000	36	32,000	49	84,000
24	8,000	37	34,000	50	90,000
25	9,000	38	37,000	51	96,000
26	11,000	39	41,000	52	102,000
27	12,000	40	44,000	53	109,000
28	14,000	41	48,000	54	116,000
29	16,000	42	51,000	55	120,000
30	18,000	43	55,000		

Source: EPF website as at 1st October, 2010.

Members' participation in the unit trust investment has been on the rising trend since it was introduced in early 1996. For the 9 years (i.e 2001 – 2009) under review, the number of members who participated in this scheme increased from 133,928 in year 2001 to 427,455 in year 2009, while the amount of members' funds invested in unit trust through this scheme grew from RM1.469 billion in year 2001 to RM3.313 billion in year 2009. This trend shows that members are aware of the investment scheme and also that many eligible members have participated in this scheme.

Figure 1.5: EPF investment Withdrawal Statistics

Year	Total EPF Active Members	No. of Members Participated in EPF-MIS	Value of Members' Investment Scheme
2001	n/a	133,928	1,469,000,000
2002	n/a	124,689	1,174,862,842
2003	n/a	136,769	1,280,096,142
2004	n/a	184,657	1,897,382,594
2005	5,260,844	223,003	2,177,703,754
2006	5,293,808	234,635	2,186,441,390
2007	5,409,153	296,235	3,295,636,853
2008	5,706,192	415,853	3,326,934,575
2009	5,792,366	427,455	3,313,065,285

Source: EPF Annual Reports (2005 – 2009). Note: n/a denotes data not available.

### *The Unit Trust Industry in Malaysia*

#### *Historical Development of Unit Trust Industry in Malaysia*

Malaysia introduced the unit trust concept relatively early compared to its Asian neighbors, when, in 1959, a unit trust was first established by a company called Malayan Unit Trust Ltd. The development of this industry can be presented in chronological order as follows:

*The Formative Years: 1959 -1979* - The first two decades in the history of the unit trust industry were characterized by slow growth in the sales of units and lack of public interest. Only five unit trust management companies were established, with a total of 18 funds introduced over that period. The industry was regulated by several parties including the Registrar of Companies, The Public Trustee of Malaysia, Bank Negara Malaysia and the Ministry of Domestic Trade and Consumer Affairs. The 1970s also witnessed the emergence of state government sponsored unit trusts, in response to the Federal Government's call to mobilise domestic household savings.

*The Period from 1980 to 1990* - This period marks the entry of government participation in the Unit Trust Industry and the formation of a Committee to regulate the unit trust industry, called the Informal Committee for Unit Trust Funds, comprising representatives from the Registrar of Companies (ROC), the Public Trustee of Malaysia, Bank Negara Malaysia (BNM) and the Capital Issues Committee (CIC). The 1980s marked a significant development in the history of the industry when the Skim Amanah Saham Nasional (ASN) was launched by Permodalan Nasional Berhad (PNB) in 1981. The 1980s also



witnessed the emergence of more unit trust management companies, which were subsidiaries of financial institutions.

*The Period from 1991 to 1999* - This period saw greater product innovation and deregulation of the industry. This period witnessed the centralisation of industry regulation, with the establishment of the Securities Commission on 1 March 1993, coupled with the implementation of the Securities Commission (Unit Trust Scheme) Regulations in 1996. Extensive marketing strategies adopted by the ASN and ASB (Amanah Saham Bumiputera), played key roles in marketing unit trusts to all Malaysians. Although the pace of growth of local unit trust funds has moderated since the financial crisis of 1997-1998, it has nevertheless maintained its upward trend.

*The Period from 2000 to current* - The industry recorded a double digit growth for the first 7 years, growing from RM43 billion in Net Asset Value (NAV) in Year 2000 to RM169 billion as at 31 December 2007. However, this strong growth was punctuated by the extraordinary financial crisis in 2008. As a percentage to Bursa Malaysia market capitalisation, its total assets under management grew from 14.35% in 2006 to 20.25% in 2008. As at Oct 31, 2009, it stood at 20.34%. Going forward, the unit trust industry is expected to continue its rapid growth as supported by growing clients' support.

Table 1.6: Summary of Statistics of Unit Trust Funds in Malaysia As At 30 June 2010

No. of Management Companies*	39
<i>Total No. of Approved Funds*</i>	575
- Conventional	419
- Islamic-based	156
<i>Total No. of Launched Funds</i>	561
- Conventional	410
- Islamic-based	151
<i>Total Units in Circulation (billion Units)</i>	288.08
- Conventional	230.439
- Islamic-based	57.641
<i>Total No. of Accounts#</i>	14,332,110
- Conventional	12,563,391
- Islamic-based	1,768,719
<i>Total NAV (RM billion)</i>	207.114
- Conventional	184.429
- Islamic-based	22.685
Bursa Malaysia Market Capitalisation (RM billion)	1,044.35
% of NAV to Bursa Malaysia Market Capitalisation	19.83%

Source: adapted from FMUTM, available at [http://www.fmutm.com.my/quick\\_statistics\\_details.asp](http://www.fmutm.com.my/quick_statistics_details.asp)

*EPF-Approved Unit Trust Funds and EPF-MIS Funds Evaluation Methodology (FEM)*

As at the end of June 2010, out of 561 local unit trust funds available for investors, 232 funds were approved by the EPF under EPF-MIS (FMUTM, 2010). The funds spread over major asset classes such as equity, bonds, mixed assets and money market, all of which invest 100% locally. Application must be made to the EPF for assessment of funds eligibility under EPF-MIS. To further enhance the EPF-MIS framework, effective 1, September 2010, EPF implemented the new EPF-MIS fund evaluation methodology (FEM). The funds evaluated must fulfill the following criteria (i) must have at least three years' track record; (ii) must not have more than 30% foreign exposure, and; (iii) its three years' simple average consistent return must be above 1.66%.

Table 1.7: Unit Trust Funds Approved Under the EPF-MIS

No.	Company Name	No. of Funds	No.	Company Name	No. of Funds
1	Affin Fund Management Bhd	5	14	ING Funds Bhd	10
2	Alliance Investment Management Bhd	7	15	Kenanga Unit Trust Bhd	2
3	Amanah Mutual Berhad	9	16	MAAKL Mutual Bhd	18
4	Amanah Saham Nasional Bhd	7	17	MIDF Amanah Asset Management Bhd	2
5	AmInvestment Services Bhd	11	18	OSK-UOB Unit Trust Management Bhd	14
6	Apex Investment Services Bhd	6	19	Pacific Mutual Fund Bhd	11
7	ASM Investment Services Bhd	4	20	Permodalan BSN Bhd	1
8	Avenue Invest Bhd	7	21	Pheim Mutual Fund Bhd	2
9	BIMB Unit Trust Management Bhd	4	22	Prudential Fund Management Bhd	11
10	CIMB-Principal Asset Management Bhd	20	23	Public Mutual Bhd	27
11	CMS Trust Management Bhd	8	24	RHB Investment Management Bhd	11
12	Hong Leong Asset Management Bhd	12	25	TA Investment Bhd	8
13	Hwang DBS Investment Management Bhd	5			

Source: FMUTM, 27 August 2010.

In December 2009, there were further enhancements on the service quality related to EPF investment withdrawal. Several Member Companies had successfully implemented the online electronic system that enables the electronic submission and processing of the withdrawal of EPF savings, by EPF members, to invest in unit trusts. By the first half of 2010, the whole industry would have been linked to the EPF electronically, for transactions under the EPF-Members Investment Scheme (EPF-MIS). With the implementation of this online electronic processing of EPF withdrawal applications, the processing time has improved significantly, from the previous 3 to 4 - week lead-time, down

to a 2- day lead-time. This has greatly enhanced business efficiency, reduced member company funding costs, improved customer relationship and market integrity. With the successful launch of this online EPF withdrawal application system, the Federation will continue to appeal to the EPF for the abolishment of the annual administration fee, currently charged by EPF, amounting to 0.125% of the NAV of funds under management, under the EPF-MIS.

*Analysis of Relative Unit Trust Investment Performance in Malaysia*

Lipper, a Thomson Reuters company, is a global leader in supplying mutual fund information, analytical tools, and commentary. Lipper's benchmarking and classifications are widely recognized as the industry standard by asset managers, fund companies and financial intermediaries. Table 1.8 below represents the analysis of relative unit trust investment performance in Malaysia. The Lipper Ratings for Total Return reflect fund historic total return performance relative to peers.

Table 1.8: Lipper Fund Rankings for Malaysian Unit Trust as at July 30, 2010<sup>11</sup>

Unit Trust Category	Total Return (%)			Rank
	1 Year 31/07/09 – 30/07/10	3 Year 31/07/07 – 30/07/10	5 Year 29/07/05 – 30/07/10	
Equity MYR				
▪ <i>Conventional Funds</i>	15.61	3.68	58.97	1
▪ <i>Islamic Funds</i>	12.86	-0.67	48.98	
Mixed Assets MYR				
▪ <i>Conventional Funds</i>	6.96	-0.41	48.98	2
▪ <i>Islamic Funds</i>	8.49	3.0	48.74	
Bond MYR				
▪ <i>Conventional Funds</i>	5.73	9.32	21.56	3
▪ <i>Islamic Funds</i>	5.71	11.63	20.11	
Money Market MYR				
▪ <i>Conventional Funds</i>	2.03	8.14	14.18	4
▪ <i>Islamic Funds</i>	1.76	6.99	10.22	

Based on the Lipper fund ranking as at 30 July 2010, the performance of Malaysian's local unit trust funds investment revealed mixed results. Based on 5 years' cumulative returns data, unit trust investment returns ranged from the lowest return of -0.41% to the highest return of 58.97%. This supports the empirical evidence that unit trust investment carries different risks and return profile than the EPF investments.

Based on this unit trust performance review, yearly unit trust performance ranged from 1.76% for money market funds to 15.61% for equity funds. However, the overall cumulative return in year 3 showed decreases across all classes of funds. This supports the notion that investment in unit trust requires

active management. Investors may need to regularly switch their investments to other funds for better yields. However, overall buy and hold strategy yields higher returns for those placed for 5 years.

## **Literature Review**

The following literature review provides empirical support on issues related to EPF-MIS, unit trust investment performance and investors' fund selection criteria.

### *Review of Literature Related to Issues on EPF-MIS*

Malaysia's EPF, which was established in 1951, is the oldest provident fund (PF) scheme in the world. It is a fully funded scheme and can be considered as one of the most successful PFs in the world (Thillainathan, 2004). The problems with EPF-MIS can be grouped into two; (i) the EPF dividend returns to contributing members are relatively low and are insufficient to grow the members' retirement funds competitively, and (ii) some members experienced losses in the unit trust investment scheme. The following studies provide some answers to the above issues.

The EPF fund management and investment activities are influenced by both internal and external factors. Thillainathan (2004) provides support for this statement and states that the constraints on EPF performance are imposed by the nature of the EPF scheme, by regulation and by financial markets which are under-developed. Additional support provided by Suresh (2002) shows that with the low retirement age, a longer life expectancy and the erosion of the informal safety net for the aged, the Fund's protection is becoming inadequate. This is aggravated by the fact that many permitted pre-retirement withdrawal schemes undermine old age savings and that the Fund's returns on investment are declining.

With regard to EPF-MIS, Lock (2001) drew attention to EPF's responsibility to ensure that the retirement savings of EPF members that have been invested or will be invested through the fund management companies will remain reasonably intact and earn at least a reasonable rate of return. At the moment, it appears that the EPF has no organized and systematic means to monitor the performance of these investments. Likewise, Fazilah (2003) states that various withdrawal schemes have more or less eroded the chances of a better retirement for EPF members, since members are actually more concerned about meeting their own contingency needs rather than having a comfortable retirement. The analysis showed that, none of members would be able to obtain

a replacement rate of at least 40 per cent of their last drawn salary and they conclude that, EPF members' savings will not be sufficient to provide them with the same lifestyle that they have been enjoying prior to their retirement. Furthermore, Keat Seng (2003), concludes that the EPF retirement benefits are not capable of replacing the income the individual had in employment and they were never meant to do so. Additionally, it does not explicitly safeguard against erosion in value of savings because of inflation and it does not try to accommodate individual specific needs arising from the fact that individual living expenses and lifespan may be different in the future.

Comparative analysis between pension and mutual funds provided by Collins (2003) states that although mutual and pension funds have similarities in some investment aspects, their business objectives and organizational structures are different. He also points out that there are differences between mutual fund expenses and pension fund expenses. The mutual fund expenses include the management fee, transfer agent fee and other ancillary expenses, while, for pension fund expenses only the portfolio management fees and administrative fees are charged.

### *Review of Literature Related to Unit Trust Investment Performance*

Past research on unit trust investment performance has revealed that returns were not consistent due to pressures from both internal and external factors and the unit trust performance fell below the general market performance. Some of empirical support is discussed below.

On international markets, Chua and Koh (1985) studied the performance of unit trusts in Singapore for the period of 1980 – 1984 and they concluded that the unit trusts under-performed the share market, were poorly diversified, inconsistent in their performance over time and the actual return and risk characteristics were not entirely consistent with the stated objectives in their prospectus. Likewise, Ariff (1996) provided evidence to show that the average returns of all unit trusts over 19 years were merely 7 per cent compared to the market average estimated at about 16.5 per cent capital gains and unknown dividends.

Specific to Malaysian markets, Shamsher and Annuar (1996) conducted a study of fifty four unit trusts, both local and foreign managed unit trust funds for the period of 1988 – 1992 and the result showed that, the average returns on investment in unit trusts in Malaysia were well below the actual market returns. The degree of diversification of the portfolio was below expectations and performance was not consistent over time, as was also the case in

other markets. The actual returns and risk characteristics of the funds were inconsistent with their stated objectives. Additionally, the findings on the foreign managed unit trusts were similar to their local counterparts. For instance, Halim et.al, (2000), evaluated the performance of the Unit Trust Industry in Malaysia over a period of 10 years, 1984 – 1994. Empirical evidence from a study of price changes showed that, in general, unit trust funds could not outperform the market even though some expectations were apparent. They further examined some characteristics of portfolios of unit trust funds such as return and risk parameters, stability of beta, and the level of diversification and consistency of performance ranking were investigated. They found that beta was relatively stable; portfolios were not well diversified and performance was not consistent over time. Empirically, factors that influenced the under performance of unit trust investment relative to the general market performance were, (i) undiversified portfolios, (ii) fund manager's poor timing ability, (iii) the general market and economic performances.

This finding is also supported by Fauziah and Mansor (2007) who examined the unit trust performance in Malaysia over the period of 1991-2001. The results show that on average the performance of Malaysian unit trust fell below market portfolio and risk free returns and there was no persistency in performance as there was no significant inter-temporal correlation between past and current performance.

Similarly, Low (2007) measured the Malaysian unit trust funds' performance during up and down market conditions by comparing it to market benchmark. He examined whether selectivity and timing performance of fund manager were sensitive to the choice of market benchmarks. The two benchmarks used were the Kuala Lumpur Composite Index (KLCI) and the Exchange Main Board All-Share (EMAS) Index. The findings indicated that, on average, the funds displayed negative overall performance with either the KLCI or the EMAS Index. In addition, there was little variation in the manager's market-timing and selectivity performance across alternative market benchmarks. It is also reported that a manager's poor timing ability contributed significantly to the fund's overall negative performance.

In terms of asset allocation, Ibbotson and Kaplan (2000) confirmed the importance of asset allocation in determining variability of returns. They found out that asset allocation could explain around 40 to 90 percent of fund return variation. To reinforce this, Brinson, Singer and Beebower (1991) found that asset allocation could determine at least 90 per cent of variability in returns across time for a typical fund. Extending their findings, Ibbotson and Kaplan (2000) noted that asset allocation policy could explain approximately 40 percent of variation in returns among funds and even 100 percent of returns from a

fund on average. Furthermore, they stated that, a fund's total return could be broken down into two components, asset allocation return and active return. While asset allocation return is attributable to the targeted market, active return is due to other factors.

### ***Review of Literature Related to Unit Trust Information Source and Selection Criteria***

Studies which examined the attributes and selection criteria used by investors to choose unit trusts are still limited. In Malaysia, Bala and Matthew (2003) conducted a survey on the relative importance of factors considered important in the selection of mutual funds by financial advisors in Malaysia. Bala and Matthew (2003) argued that the perception of the financial advisors could reflect the choice of mutual funds among their clients since they are the ones actually advising and convincing them. The results of the survey point to three important factors influencing the choice of mutual funds - notably past performance, size of funds and costs of transaction. Factors related to fund managers and investment style, however, were not considered to be relatively important. However, these findings are debatable due to the fact that intuitively fund manager's capabilities and investment strategies are expected to indirectly influence fund performances.

Table 2.1: Attributes of Unit Trust Funds to Financial Advisors

Attribute Factors	Choice
Previous Performance of Funds*	Consistent growth over the last 5 years Impressive record last year Above normal growth over the last 3 years
Qualification of Fund Manager	Professional qualifications Post-graduate qualifications
Experience of Fund Manager	Less than 7 years More than 7 years
Investment Style of Fund Manager	Conservative Aggressive
Size of Funds*	Small (around 200,000 units in circulation) Medium (around 200,000 units – 1,000,000 units in circulation) Large (above 1,000,000 units in circulation)
Affiliation of Mutual Fund	Linked to government agency Linked to a financial institution
Number of Funds Managed	Specialized in one fund Diversified funds
Cost of Transaction*	5% of NAV 7.5% of NAV 10% of NAV

Source: Adapted from Bala R., and Matthew C.H. Y. (2003)



Another study conducted in the United States (US) by Noel et. al. (2004) analyzed the information sources and investor selection criteria related to purchase decision of mutual funds. Data were collected via a survey of 298 affluent US-based consumers with mutual fund investments. The summary of the variables tested are as follows. The sign \* denotes significant important factors.

Table 2.2: Mutual Fund Purchase Decisions

Importance of Information Sources in Mutual Funds Investments	Importance of Selection Criteria in Mutual Fund Investments
Performance rankings*	Investment performance record*
Recommendations of business associates*	Responsiveness to enquiries*
Advertising-magazines*	Reputation of fund manager*
Advertising-national papers*	Confidentiality*
Books or newsletters	Management fees of funds*
Financial advisors-commission based	Investment management style*
Seminars	Scope (number of funds in the family of funds
Financial advisors-fee based	Additional features (e.g. checking, brokerage services)
Direct mail	Community services orientation of fund manager
Recommendations of friends and/or family	
Advertising-radio	
Advertising-television	

Source: Adapted from Noel, C., Gavan J.F., and Rick, W., (1994)

### *Research Design and Conceptual Framework*

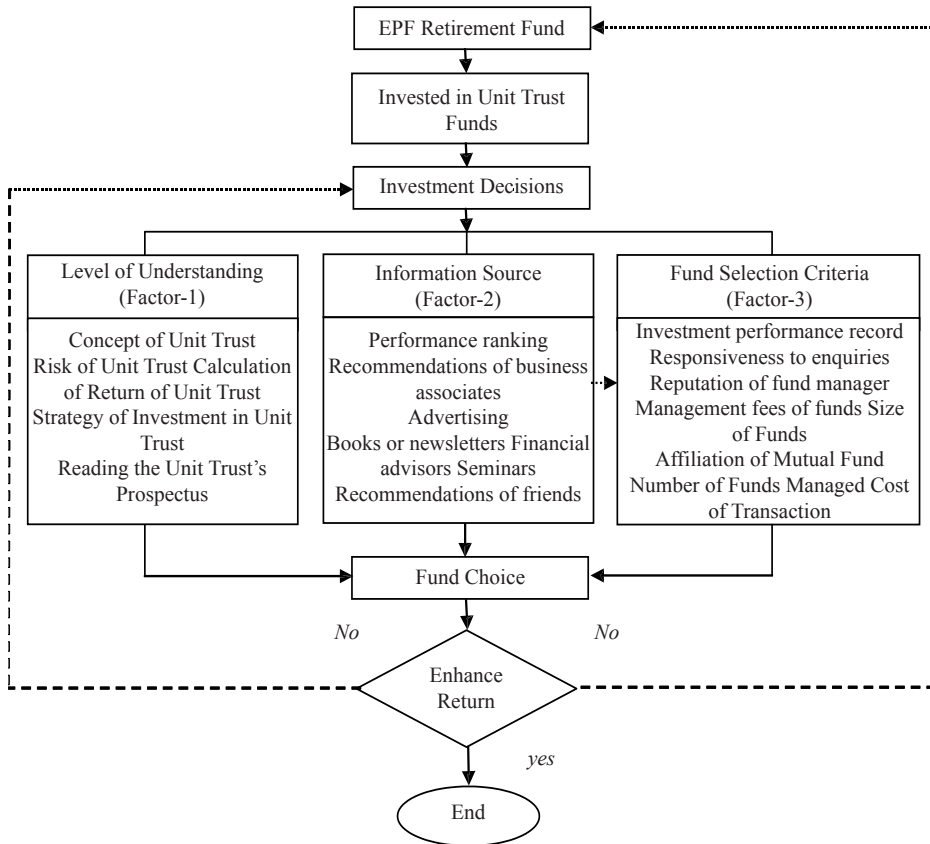
The following conceptual framework was constructed based on a review of research problems and relevant information gathered from past papers related to issues investigated.

The situational issue is that members of EPF can participate in EPF-MIS to enhance their retirement fund returns. Participating in the EPF-MIS means members are allowed to invest the eligible amount in their account 1 in EPF-approved unit trust funds. In making the investment, members are fully responsible for selecting their preferred unit trust funds. Investment risk liability is transferred solely to the respective members.

Level of understanding about unit trust investment (factor-1), Information sources (factor-2) based on Bala and Matthew (2003) and fund selection criteria (factor-3) based on Noel et. al (1994) are expected to influence the choice of unit trust funds and directly affect the investment performance. Investing in unit trust funds requires active investment on the part of the investing



Figure 2.1: EPF Investment Withdrawal Scheme and The Unit Trust Fund Purchase Decisions



members. Their unit trust investment needs to be evaluated on a regular basis. The central focus will be on whether the chosen fund yields a reasonable return, better than the EPF guaranteed return of 2.5% or average return of 5%. If the unit trust investment yields high returns, then members can continue holding and managing them. However, if the unit trust return is not better than 2.5%, members have two options; either to re-evaluate the investment decision criteria (i.e factor-2 and factor-3) or let EPF manage the retirement funds.

## Research Design and Methodology

### Research Questions

RQ1: What are EPF members' awareness of, participation in and experience of EPF-MIS?

RQ2: Does the level of understanding (factor-1) of unit trust investment mechanism influence members' EPF-MIS return?

RQ3: Does the information source (factor-2) of unit trust investment influence member's EPF- MIS return?

RQ4: Do selection criteria (factor-3) of unit trust investment influence member's EPF-MIS return?

### **Data Collection and Instrument Design**

#### *The Questionnaire Design*

A structured questionnaire was designed to obtain primary data from the respondents. Questions on information source (factor-2) about unit trust investment were refined from Bala and Matthew (2003) and questions on unit trust fund purchase decisions (factor-3) were adapted from Noel et. al. (1994). The questionnaire was subjected to a small-scale pilot study for refinement and improvement of its reliability. We designed a bilingual questionnaire (English-Bahasa Melayu) to facilitate understanding. We employed an online questionnaire service provided by SurveyMonkey accessed through <http://www.surveymonkey.com>. The questionnaire comprised three sections, as summarized below:

Table 3.1: The Structured Questionnaire Design

Section	Category	Remarks
Section A	Respondent Profile	This section obtains information on respondents' demographic profile.
Section B	EPF Savings Information & Retirement Planning	This section concentrates on Profiling the EPF members' retirement savings information and awareness of retirement planning.
Section C	Experience & Perception on EPF Investment in Unit Trust	This section analyses members' experience and perceptions of participating in EPF investment in unit trust funds with specific attention to the following aspects; <ol style="list-style-type: none"> <li>a. <i>Members' participation in the EPF withdrawal scheme.</i></li> <li>b. <i>Member' experience of EPF investment withdrawal scheme.</i></li> <li>c. <i>Level of understanding of unit trust investment mechanism.</i></li> <li>d. <i>Source of unit trust investment information.</i></li> <li>e. <i>Fund's selection criteria for choosing unit trust funds.</i></li> </ol>

### *Sampling and Distribution Strategy*

#### **Snowball Sampling**

The defined population chosen for the study was the total number of both private and public employees contributing to the EPF and had participated in the EPF-MIS. As at 31, December 2009, the total number of active EPF members was 5,792,366. Only 427,455 (7.38%) had participated in the EPF- MIS (EPF, 2009). The snowball sampling was decided to be the most appropriate for this study which focused only on a specific group (i.e EPF members who had participated in the EPF-MIS). The sample was drawn from both private and public employee population in Malaysia.

For the private sector, we e-mailed the online questionnaire to all EPF approved fund managers through the communications department and asked them to forward the questionnaire to all unit trust consultants under their supervision. Thereafter, the Unit trust Consultants forwarded the questionnaire to their respective clients. We also e-mailed the questionnaire to all local banks in Malaysia targeting their personal financial consultants through the corporate communications department. For the public sector, we e-mailed the online questionnaire to all employees of Universiti Teknologi MARA (UiTM) throughout Malaysia and to a few Government Linked Companies (GLCs) employees.

## **Data Analysis and Discussion**

### *Reliability Analysis*

The Cronbach's alpha ( $\alpha$ ) is a statistical method used to measure the reliability of research instruments (Rahim, 2009). This method determines reliability by looking at the internal consistency of the research instrument such as questionnaire items presented in the Likert scale. Cronbach's Reliability index ranges from 0.0 to 1.0. A higher index is preferred to obtain a high reliability of questionnaire items. Table 4.1 below summarises the reliability analysis of a pilot test done on the responses provided by the first 20 respondents. Since the reliability index of 0.953 obtained in the pilot test was satisfactory, we did not make any adjustments to the final questionnaire.

Table 4.1: Reliability Statistics

Pilot Testing ( <i>Before Adjustment</i> )		Full Sampling ( <i>After Adjustment</i> )	
Cronbach's Alpha	No. of Items	Cronbach's Alpha	No. of Items
.953	23	.953	23

### ***Respondents Demographics Analysis***

The response from a total of 310 respondents from all 14 States in Malaysia who participated in the survey is summarised in table 4.2 below:

Table 4.2: Respondent's State of Resident Analysis

State of Resident	Response Percent	Response Count	Rank
Johor	5.6%	17	8
Kuala Lumpur	1.0%	3	12
Kedah	7.2%	22	4
Kelantan	6.9%	21	5
Melaka	4.3%	13	10
Negeri Sembilan	2.3%	7	11
Pahang	0.3%	1	13
Penang	7.2%	22	4
Perak	5.9%	18	7
Perlis	6.6%	20	6
Sabah	24.6%	75	1
Sarawak	12.1%	37	2
Selangor	11.1%	34	3
Terengganu	4.9%	15	9

The highest numbers of respondents came from three states namely Sabah (24.6%), Sarawak (12.1%) and Selangor (11.1%). The respondents were grouped into two: EPF account holders (70.1% or 213 respondents) and non-EPF account holders (29.9% or 91 respondents). The majority (86.8%) of the respondents were younger than 49 years old, and most (83.4%) were public sector employees. The biggest number of respondents was Malay (71.5%), followed by other Bumiputera (21%), Chinese (5.9%) and Indian (1.6%). Table 4.3 below summarizes the demographic profile of the respondents.

Table 4.3: Respondents' Demographic Factor Analysis

Demographic Factors	Response Percent	Response Count	Rank
<i>Gender</i>			
Male	42.6%	130	2
Female	57.4%	175	1
<i>Age Group</i>			
Below 30	25.3	77	2
Between 30-39	37.8	115	1
Between 40-49	23.7	72	3
Above 50	13.2	40	4
<i>Race</i>			
Malay	71.5	218	1
Chinese	5.9	18	3
Indian	1.6	5	4
Others Bumiputra Ethnic	21.0	64	2
<i>Education Level</i>			
PhD	5.9	18	4
Master/Professional	58.2	177	1
First Degree	20.4	62	2
Diploma	10.2	31	3
Others	5.3	16	5
<i>Occupation Sector</i>			
Public Sector	83.4	251	1
Private Sector	14.0	42	2
Self-Employed	2.7	8	3
<i>Position Held</i>			
Clerical	4.7	14	4
Officers	32.6	98	2
Managers	10.0	30	3
Senior Managers	2.7	8	5
Others	50.2	151	1

### *Respondents' Retirement Planning and EPF Savings Condition*

All of the respondents (100%) stated that they had financial planning for the following reasons; old age financial security (79.5%), future health expenses (76.7%), future children's education (66.7%), old age financial freedom (57%), and (8.5%) cited other reasons. The following table 4.4 summarizes the respondents' total retirement savings versus their EPF retirement savings. The findings revealed that a large portion of the respondents (48.8%) had a total

retirement savings of RM50,000 and below and the majority of them (48.1%) relied on EPF savings for retirement.

Table 4.4: Respondents' Total Retirement Savings Vs. EPF Savings

Range of Savings	Total Retirement Savings		Total EPFs Savings	
	Response Percent	Response Count	Response Percent	Response Count
Below RM10,000	24.0%	61	18.1%	43
RM10,000 to RM50,000	24.8%	63	30.0%	71
RM51,000 to RM100,000	11.0%	28	16.0%	38
RM101,000 to RM200,000	18.9%	48	7.6%	18
RM201,000 to RM500,000	8.7%	22	6.8%	16
RM501,000 to RM1,000,000	5.1%	13	0.4%	1
Above RM1,000,000	1.6%	4	1.7%	4
Not Applicable	5.9%	15	19.4%	46

The following table 4.5 summarises the respondents' retirement savings options. This finding revealed that majority of the respondents (53.9%) kept their money in EPF for retirement savings.

Table 4.5: Retirement savings options

Popular Savings Options	Response Percent	Response Count	Rank
EPF Savings	53.9%	138	1
Deposits with Banks	43.4%	111	3
Other Deposits	9.4%	24	8
Unit Trust	41.8%	107	4
Company Shares	3.5%	9	10
Properties	28.9%	74	5
Other Investments	19.5%	50	6
General Insurance	12.9%	33	7
Life Insurance	44.1%	113	2
Other Insurance	12.9%	33	7
Others	7.0%	18	9
Not Applicable	1.2%	3	

### *Data Filtering Analysis*

Data filtering involved reducing the sample size by focusing on EPF members who had participated in EPF-MIS only, the central focus of this research. The following table summarises the data filtering analysis process.

Table 4.6: Summary of Data Filtering Process

	Whole sample	Cut-1	Cut-2	Cut-3
Descriptions	Total sample which comprised EPF and non-EPF members.	Total sample of EPF members only.	Total sample of EPF members who had participated in EPF-MIS only before treatment of missing values.	Total sample of EPF members who had participated in EPF-MIS only after treatment of missing values.
Total Respondents	310	215	64	58
Percentage	100%	69.35%	20.65%	18.71%

The final sample only consisted of 58 EPF members who had participated in EPF-MIS.

#### ***Respondents' Awareness of, Participation in and Experience of EPF-MIS***

From the initial sample of 130, a total of 170 respondents (79.8%) indicated that they were aware of the EPF-MIS. However, only 64 respondents (20.65%) had participated in the EPF-MIS. However, after the filtering process, the total final sample of respondents who had participated in EPF-MIS was only 58 respondents. The summary of the 58 EPF members' investment in unit trust funds is tabulated below;

Findings from this research revealed that the majority of the respondents (42.9%) were relying on unit trust's financial consultants for investment advice, drawing attention to the important role of financial consultants in managing these members' investments. The balance of (16.8%) made their investment decisions on their own. The majority of the respondents (21%) had been investing in EPF-MIS for more than 5 years.

The most popular types of unit trust funds chosen by the respondents were conventional equity funds (26.5%) followed by Islamic equity funds (28.2%), Islamic balanced funds (13.3%), conventional balanced funds (5.5%), Islamic bonds funds (5.0%), conventional bonds funds (3.3%). Money market funds ranked the lowest in terms of popularity. This is in line with the risks and return profile of these different types of unit trust funds.

The performance of the respondents' funds was found to be mixed. 37 respondents (63.9%) reported generating profit in their investment while 21 respondents (36.1%) reported experiencing losses in their unit trust investments.

Table 4.7: Members' Investment in Unit Trust Statistics

Questions	Response Percent	Response Count
<i>Where did you buy these Unit Trust Funds?</i>		
Financial Consultants	70.7%	41
Others	29.3%	17
<i>How long have you been investing in unit trust scheme?</i>		
Less than a year	3.4%	2
Between 1 - 2 years	39.7%	23
Between 3 - 5 years	22.4%	13
More than 5 years	34.5%	20
<i>Amount of Members' Investment in Unit Trust</i>		
Below RM10,000	39.7%	23
RM10,000 to RM50,000	36.2%	21
RM51,000 to RM100,000	15.5%	9
RM101,000 to RM200,000	8.6%	5
<i>Types of your unit trust investment?</i>		
Conventional - Equity Fund	26.5%	48
Conventional - Balanced Fund	5.5%	10
Conventional - Bonds Fund	3.3%	6
Conventional - Money Market Fund	2.2%	4
Islamic - Equity Fund	28.2%	51
Islamic - Balanced Fund	13.3%	24
Islamic - Bonds Fund	5.0%	9
Islamic - Money Market Fund	1.7%	3
<i>Average yearly return of your Unit Trust Investment?</i>		
Negative Return (Below -5%)	24.1%	14
Negative Return (Between -5% to -10%)	10.3%	6
Negative Return (Between -11% to -15%)	0.0%	0
Negative Return (Between -16% to -20%)	0.0%	0
Negative Return (Between -21% to -30%)	1.7%	1
Negative Return (Above -30%)	0.0%	0
Positive Return (Below 5%)	12.1%	7
Positive Return (Between 5% to 10%)	29.3%	17
Positive Return (Between 11% to 15%)	12.1%	7
Positive Return (Between 16% to 20%)	5.2%	3
Positive Return (Between 21% to 30%)	3.4%	2
Positive Return (Above 30%)	1.7%	1

For positive returns, the majority of the investing respondents (29.3%) reported earning a positive return between 5% and 10% and 12.1% of them, generating positive returns of between 11% and 15%, and another 12.1%, generating positive returns of below 5%. The survey indicated that 10.3% of the respondents suffered negative earnings returns of between 5% to 10% and 24.1% had returns of below 5%.



Financial consultants play an important role since the majority of the respondents relied on their advice. The following table summarises investing members' experiences of dealing with their financial consultants with regard to their EPF-MIS. On average, investing members have indicated 'mildly agree' (scale 4) on the importance of duties of financial consultants (i.e questions E1\_1, E1\_2 and E1\_3) during investment negotiation. Members also mildly agreed on their satisfaction over the financial consultants' after sales-services (i.e questions E1\_5 and E1\_6). Additionally, members strongly agreed on regularly having received their unit trust investment performance reports.

Table 4.8: Frequency Statistic of Members' Experience in EPF-MIS

Code	Experience with financial consultants	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree
E1_1	Your financial consultant has briefed you in detail about risks and returns of investing your EPF savings in Unit Trust Funds	20	24	6	6	2
E1_2	Your financial consultant has clarified the characteristics and mechanism of investing in Unit Trusts	18	26	6	6	2
E1_3	Your financial consultant regularly briefs you and gives recommendations regarding your current investment performance	14	27	8	7	2
E1_4	You have regularly received your investment statement and report	24	20	6	7	1
E1_5	You are satisfied with the after-sales service given by your financial consultant	15	23	7	7	6
E1_6	You are satisfied with the return on your EPF investment in Unit Trust Funds	17	23	10	5	3

Table 4.9 summarises the mean differences of experiences of losses group (0) and profitable group (1). Collectively, on average, the profitable group (those who made profits on their unit trust investments) recorded high mean scores on their pre and post experience dealing with their respective financial consultants compared to the losses group (those who experienced losses in their unit trust investment).

### Data Exploratory Analysis

The exploratory data analysed the relationship of members' unit trust investment performance (returns) with the level of understanding on unit trust investment (factor-1), information sources (factor-2) and fund selection criteria (factor-3). Table 4.10 below summarises the exploratory data exploratory analysis.

Table 4.9: Descriptive Statistics - Experience in EPF-MIS

Code	Losses Group (0)		Profitable Group (1)	
	N	Mean	N	Mean
E1_1	21	3.8571	37	3.9730
E1_2	21	3.7619	37	3.9730
E1_3	21	3.5238	37	3.8919
E1_4	21	3.9048	37	4.0811
E1_5	21	3.6667	37	3.6486
E1_6	21	3.4286	37	4.0000

Table 4.10: Summary of factor-1, factor-2, and factor-3

Level of Understanding (factor-1)		Information Source (factor-2)		Funds' Selection Criteria (factor-3)	
Code	Factors	Code	Factors	Code	Factors
F1_1	Concept of Unit Trust Investment	F2_1	Performance ranking	F3_1	Past Performance /Return
F1_2	Risk associated with Unit Trust Investment	F2_2	Recommendation of Business Associates	F3_2	Performance Consistency
F1_3	Concept and Calculation of return of investment in Unit Trust	F2_3	Advertising	F3_3	Size of Funds
F1_4	Strategies in Unit Trust Investment	F2_4	Books or Newsletters	F3_4	Reputation of the Unit Trust Company
F1_5	Reading the Unit Trust Prospectus	F2_5	Financial Advisors	F3_5	Price per unit of the Funds
		F2_6	Seminar	F3_6	Fund Managers & Investment Style
		F2_7	Recommendations of friends/family	F3_7	Financial Consultant Recommendations
		F2_8	Direct mail	F3_8	Investment potentials based on Unit Trust Prospectus
				F3_9	Cost of Transactions
			F3_10	Management Fees of Fund	

Table 4.11 above summarises the descriptive statistics of the transformed independent variables (i.e factor-1, factor-2 and factor-3). The statistical analysis revealed that on average, all respondents ‘mildly agreed’ on the importance of factor-1, factor-2 and factor-3 when making decisions to invest in unit trust schemes. Just like other investment instruments, investment in unit trust funds carries risk. Thus, having prior knowledge or a level of understanding of unit trust investment, investment information source and knowledge of fund selection criteria is important for members, to enable them to choose types of funds and design their investment strategies to minimise the risks associated with unit trust investments and to expect higher returns than the promised minimum return of 2.5% on EPF savings.

Table 4.11: Descriptive Statistics of Mean Values of Variables

Factors	Sum_F1	Sum_F2	Sum_F3
Mean	4.2586	3.9483	4.3966
Std. Deviation	.78495	.80399	.79339
N	58	58	58

Table 4.12: Descriptive Statistics - Level of Knowledge about Unit Trust Investment Mechanism

	Losses Group (0)		Profitable Group (1)	
	N	Mean	N	Mean
F1_1	21	3.8571	37	4.4595
F1_2	21	3.8571	37	4.4324
F1_3	21	3.5714	37	3.9189
F1_4	21	3.7143	37	4.0270
F1_5	21	3.5714	37	4.0811

Members' level of knowledge in a losses and profitable group is different as evidenced by mean differences analysis as tabulated in table 4.12 above.

#### *Diagnostic Test*

The statistical diagnostic test comprises tests of normality and homogeneity of dependent and all independent variables. The results of analysis revealed that dependent and all independent variables properties did not meet the normality and homogeneity tests and hence violated the parametric analysis conditions. Therefore, nonparametric methods were used to test for significance of correlation and association of independent variables (Sum\_F1, Sum\_F2 and Sum\_F3) with dependent variables (Return).

#### *Test of Correlation and Association of Variables*

The Spearman rho (Hinkle et. al, 1994) was used to determine the relationship between two variables. This is a nonparametric method and used when the assumption of normal distribution for the value of variables has been violated, while Pearson Chi-Square analysis was used to determine the association of variables. Both correlation and association analysis revealed that members' EPF-MIS investment returns were statistically correlated with factor-1 (knowledge) and factor-3 (funds selection criteria) only at the significant level of 0.05, while factor-2 (source of investment information) was positively correlated with returns but it was not statistically significant.

Table 4.13: Tests of Normality<sup>b</sup> and Test of Homogeneity of Variance<sup>a</sup>

	Kolmogorov-Smirnova			Shapiro-Wilk			Levene Statistic		
	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	Sig.	
Return -	3	.356	9	.002	.655	9	.000	6.823	.002
Sum_F1	4	.383	22	.000	.628	22	.000		
	5	.492	26	.000	.484	26	.000		
Return -	2	.385	3	.	.750	3	.000	.871	.188
Sum_F2	3	.353	11	.000	.649	11	.000		
	4	.457	30	.000	.554	30	.000		
	5	.443	14	.000	.576	14	.000		
Return-	3	.367	5	.026	.684	5	.006	1.723	.188
Sum_F3	4	.403	19	.000	.616	19	.000		
	5	.465	32	.000	.540	32	.000		

a. Lilliefors Significance Correction; b. Return is constant when sumf3 = 2.00. It has been omitted.; c. Based on Mean

Table 4.14: Summary of Spearman's rho and Pearson Chi-Square Analysis

		Return	Sum_F1	Sum_F2	Sum_F3
Return	Correlation Coefficient	1.000	.324*	.213	.274*
	Sig. (2-tailed)	.	.013	.109	.037
	N	58	58	58	58
Sum_F1	Correlation Coefficient	.324*	1.000	.589**	.472**
	Sig. (2-tailed)	.013	.	.000	.000
	N	58	58	58	58
Sum_F2	Correlation Coefficient	.213	.589**	1.000	.530**
	Sig. (2-tailed)	.109	.000	.	.000
	N	58	58	58	58
Sum_F3	Correlation Coefficient	.274*	.472**	.530**	1.000
	Sig. (2-tailed)	.037	.000	.000	.
	N	58	58	58	58
Pearson Chi-Square (X2)			6.748 (.080)	4.363 (.225)	6.562 (.087)

\*. Correlation is significant at the 0.05 level (2-tailed) \*\*. Correlation is significant at the 0.01 level (2-tailed).

## Conclusions and Recommendations

### Conclusions

The main objective of this research paper is to investigate the reported weak performance of EPF members' investment in unit trust funds through the EPF-MIS. The findings of this paper are drawn from the filtered respondents covering all states in Malaysia. Collectively, the findings revealed that members' investment performances in unit trusts were mixed. The highest return for members' investment was 10% and the lowest return was negative 5%, providing

evidence that there are possibilities of the participating members' earnings dipping below than the 2.5% guaranteed minimum return for EPF. From the opportunistic view, there are also possibilities for members to generate higher returns than the average performance of EPF investment of 5%. The five-year historical performance for the unit trust industry in Malaysia also revealed mixed results across different classes of unit trust funds. Based on the types of unit trust funds, equity funds performed better (15.61%), followed by mixed funds (8.49%), bond funds (5.73%) and money market funds (1.76%). This research paper also concludes that members' investment is influenced by their level of knowledge of unit trust investment, information source as well as fund selection criteria. Additionally, financial consultants play a critical role in assisting EPF members in their investment decision making since the majority of them are relying on the services and advice rendered by the financial consultants.

### *Recommendations*

#### *Recommendations to EPF members*

There are clear two options for EPF members to manage their EPF retirement funds. The first option is to leave it entirely to EPF to manage the funds. Under this option, members are guaranteed a minimum return of 2.5% and maximum return averaging around 5% for the past few years. Alternatively, members can invest the allowable portion of their EPF account 1 into approved unit trust funds for potential higher returns. However, this requires an active investment management approach on the part of the investing members. Performance of unit trust investment will be influenced by wide internal and external factors as discussed in this paper. Selection of the type of unit trust funds will be influenced by their knowledge of unit trust investment mechanisms as well as pressures from their financial consultants' recommendations. The risk liability of members' participation in EPF-MIS is solely the responsibility of the respective members.

#### *Implication on the Industry's Best Practices*

*To the EPF* – It is very important for the EPF management to ensure strict compliance with procedures laid down on fund selection in order to safeguard the interest of investing members. Members can use the EPF-MIS Fund Rating and regular performance analysis as checklists to monitor the performance of funds. The report must be made publicly available to EPF members to assist investing members in managing their investment in unit trusts effectively.

*To the Investment Management Company* – All approved unit trust fund management companies could introduce a comparative analysis of members'

investment performance in EPF versus EPF-MIS. This should be made available to investing members and the financial consultants should advise their clients accordingly to protect and enhance members' retirement savings.

### *Future Research*

Future research can be undertaken to improve the representativeness of the respondents' sample. A possible option is to replicate the present study by involving all EPF members who have participated in the EPF-MIS, subject to consent from the EPF management. Another option is to involve all EPF approved unit trust fund managers' financial consultants since they have influences over the members' investment decision making. This might be costly and may be subject to confidentiality issues. This research has also revealed that the majority of the respondents have insufficient retirement savings and most of them are depending on their EPF savings for their retirement plan. Research into these issues could also be conducted.

## **Notes**

- <sup>2</sup> Ng Lian Lau, the president for Life Insurance Association of Malaysia , The Star dated 27th May 2007
- <sup>3</sup> Lee Boon Keng and Andy Ong, the authors for financial planning book entitled "Personal financial planning in Malaysia"
- <sup>4</sup> EPF Annual Report 2006 and Azlan Zainol, EPF dividend rate for 2007, sourced from EPF website
- <sup>5</sup> Changes to EPF scheme, Datuk Azlan Zainol, Chief Executive Officer of EPF
- <sup>6</sup> Lee Hock Lock, Financial Security in Old Age, Pelanduk Publication, 2001
- <sup>7</sup> The Utusan Malaysia articles dated 6 and 7 August 2006 in respect of EPF members suffering losses in unit trust investments
- <sup>8</sup> Tunku Datuk Ya'acob Tunku Abdullah (President of FMUTM), Press release dated 8th August 2006.
- <sup>9</sup> Lipper Fund Rankings as at 30th August 2010
- <sup>10</sup> EPF, Savings and Beyond, The Star dated 29th January 2008
- <sup>11</sup> The Malaysian Unit Trust performance is summarised from Lipper Asia Ltd Unit Trust fund performance as at July 30, 2010 adapted from Personal Money, issue September 2010, pp. 84-87. Fund performance as percentage figure is calculated on net asset value (NAV) to NAV basis with gross income or dividend reinvested, and does not take into account any sales or redemption charges.

## **References**

- A. Samad, F. (2003). Survival after Retirement: Will Employees Provident Funds' (EPF) Savings is Able to Provide a Comfortable Retirement? *Akauntan Nasional*, 16 (2), Issue March 2003.

- Bala, R., and Matthew C.H.Y. (2003). Evaluating Mutual Funds in an Emerging Market: Factors That Matter to Financial Advisors, *International Journal of Bank Marketing*, 21 (3), 122-136.
- Bruce A. H. (2005). Does Mutual Fund Advertising Provide Necessary Investment Information? *International Journal of Bank Marketing*, 23 (4), 296-316.
- Cheng-Ru, W., Hsin-Yuan, C., and Li-Syuan, W. (2008). A Framework of Assessable Mutual Fund Performance, *Journal of Modelling in Management*, 3 (2), 125-139.
- Charles A. Trzcinka (1998). Mutual Fund Fees and Competition in the Mutual Fund Industry. Available at [www.kelley.iu.edu/ctrzcink](http://www.kelley.iu.edu/ctrzcink)
- Collins, S. (2003). The Expenses of Defined Benefits Pension Plans and Mutual Funds, *Investment Company Institute Journal*, 9 (6), 1-19
- David Richardson (2004). Variety Characterises Asian Pensions Funding, The Investment Management Perspectives, Issue July 2004, 63-70. Available at [http://www.pwc.com/en\\_GX/gx/investment-management-real-estate/pdf/0704perspectives.pdf](http://www.pwc.com/en_GX/gx/investment-management-real-estate/pdf/0704perspectives.pdf)
- Employees Provident Fund Annual Reports (various years).
- Firkiyah, A., Shamsher, M., and Taufiq, H. (2001). A Comparative Performance of Malaysian Islamic and Conventional Mutual Funds, *Managerial Finance*, 33(2), 142-153.
- Gary P. Brinson, Brian D. Singer and Gilbert L. Beebower (1991). Determinants of Portfolio Performance II: An Update, *Financial Analysts Journal*, 47 (3), 40-48
- Gruber, Martin, J. (1996). Another Puzzle: The Growth in Actively Managed Mutual Funds, *The Journal of Finance*, 51 (3), 783-810
- Hussein A. Hassan Al-Tamimi and Al Anood, K. (2009). Financial Literacy and Investment Decisions of UAE Investors, *The Journal of Risk Finance*, 10(5), 500-516.
- Ippolito, Richard. A (1989). Efficiency with Costly Information. A Study of Mutual Fund Performance, 1965 – 1984, *The Quarterly Journal of Economic*, 104 (1), 1-23
- Jeffrey Gan (2007). The Untold Million-Dollar Secrets of Unit Trust Investment. Leeds Publication: Selangor, Malaysia.
- John Nuttall, William Jahnke, Roger G. Ibbotson and Paul D. Kaplan (2000). Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance? *Financial Analysts Journal*, 56 (1), 26-3322

Joseph H.H. Chia and Y.K.Tse (2000). An Empirical Analysis of Unit Trust Performance in Singapore, School of Business, Singapore Management University. Available at [http://staff.mysmu.edu/yktse/ChiaTse\\_1.pdf](http://staff.mysmu.edu/yktse/ChiaTse_1.pdf)

Lee Boon Keng and Andy Ong (2004), Personal Financial Planning in Malaysia. AFPJ Pte. Ltd., Singapore.

Lee Hock Lock (2001). Financial Security in Old Age: Whither the Employees Provident Funds of Malaysia. Pelanduk Publication: Selangor, Malaysia.

M. Taib, F., and Isa, M. (2007). Malaysian Unit Trust Aggregate Performance, *Journal of Managerial Finance*, 33 (2), 102-121.

M. Nor, A.R. (2009). Statistical Methods in Research. Malaysia: Prentice Hall

Micheal, A. Firth (1977). The Investment Performance of Unit Trusts in the Period of 1965 – 1975, *Money Credit and Banking Journal*, 9 (4), 597-604

Michael, C. Jensen (1968). Problem in Selection in Security Portfolios. The Performance of Mutual Funds in the Period of 1954 – 1964, *The Journal of Finance*, 23, (2), 389-416

Miguel A. Ferreira, António F. Miguel and Ramos, S. (2006). The Determinants of Mutual Fund Performance: A Cross-Country Study, *Swiss Finance Institute Research Paper Series*, 6-31. Available at <http://ideas.repec.org/f/pr296.html>

Narayanan, S (2002). Old Age Support For Private Sector Employees in Malaysia: Can The Employees Provident Fund Do Better? *Hitotsubashi Journal of Economics*, 43, 119-134

Nawawi, A.H., Mehad, S., Hassan, R, A. Rahman, H. (2000). A Performance Evaluation of Unit Trust Industry in Malaysia, *BRC Journal*, 6 (1), 97-123.

Noel C., Gavan J., and Rick W. (1994). Affluent Investors and Mutual Fund Purchases, *International Journal of Bank Marketing*, 12(3), 17-25.

Roger Otten and Dennis Bams (2007). The Performance of Local versus Foreign Mutual Fund Managers, *European Financial Management*, 13 (4), 702-720

Shamsher M. and Annuar M.N (1995). Performance of Unit Trusts in Malaysia: Some Evidence, *Capital Market Review* 3, 51-64

Soo-Wah, Low (2007). Malaysian Unit Trust Funds' Performance During Up and Down Market Conditions: A comparison of market benchmark, *Managerial Finance*, 33(2), 154-166



Thillainathan, R. (2004). Malaysia: Pension & Financial Market Reforms and Key Issues on Government. Paper Presented at the Conference on Pension in Asia organized by Hitotsubashi University in Tokyo. Available at [http://hermes-ir.lib.hit-u.ac.jp/rs/bitstream/10086/14293/1/pie\\_dp197.pdf](http://hermes-ir.lib.hit-u.ac.jp/rs/bitstream/10086/14293/1/pie_dp197.pdf)

Tng, C.S (2006). Factors Influencing Unit Trust Performance, DBA thesis, Southern Cross University, Lismore, NSW. Available at <http://epubs.scu.edu.au/cgi/viewcontent.cgi?article=1046&context=theses> 23

William, F. Sharpe (1996). Mutual Fund Performance, *Journal of Business*, 39, (1), 119-138

William G. Droms and David A. Walker (1996). Mutual Funds Performance, *The Quarterly Review of Economics and Finance*, 36 (3), 347-363

Wee-Yeap, L. (2007). An Integrated Framework for Style Analysis: How is It Useful to Malaysian Equity Trust Investors? *Managerial Finance*, 33(2), 122-141.

Yahaya, A., Yahaya, N., Mohamad, R.A., Ramli, J., Boon, Y., A. Ghaffar, M.N., and Zakariya, Z. (2009). National Unit Trust Berhad (NUTB) Promotional Strategies for Bumiputra in Malaysia, *American Journal of Scientific Research*, 5, 33-49.

Yeo, K.S (2003). Investing Your Savings, Star Publications Berhad, Malaysia.

Yin-Fah, B.C., Paim, L., Masud, J, and Hamid, T.A. (2010). The Future of the Malaysian Older Employees: An Exploratory Study, *International Journal of Business management*, 5 (4), 125-132.