CHAPTER 4 : EMPIRICAL FINDINGS FOR MONDAY EFFECT.

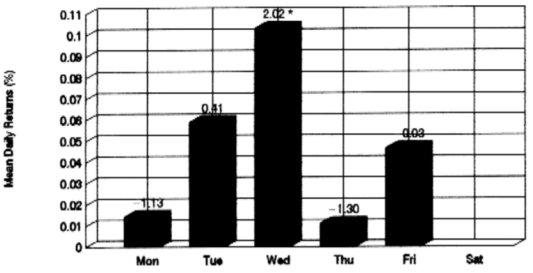
4.1 Patterns in KLSE's Monday Effect For The Whole Period Under Review (1976-1996).

The overall result obtained for the local bourse shown in Graph 1 indicates that KLSE exhibited a pronounced negative daily return for Monday vis-à-vis the other days of the week for all the six KLSE indices under this study. Tuesday's daily return was also found to be negative for five of the indices i.e. Composite, Industrial, Finance, Properties, and Tin/Mining indices but the magnitude of this negative return was very much smaller as compared to the negative Monday return. Are these negative Monday or Tuesday returns statistically significant?

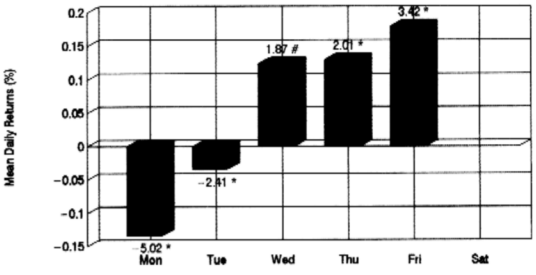
The various statistical test results for the overall period from 1976-1996 are shown in Table 1. The independent samples t-test results obtained for the overall period indicate that Monday's return differ significantly from the rest of the day-of-the-week's return for the Composite, Industrial, Finance, Properties, Plantations, and Tin/Mining indices as their respective null hypotheses were rejected. This implies that Monday effect continued to prevail on the local bourse. However, t-test results for the overall period also showed that Tuesday's return differs significantly from the rest of the

Graph 1 : Mean Daily Returns For Whole Period From 1976–96

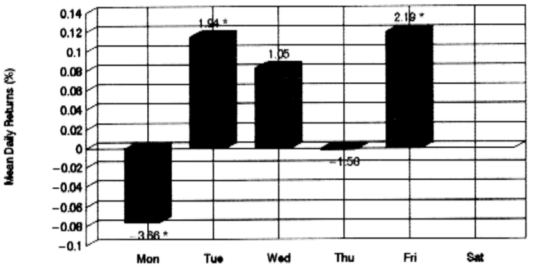
Dow Jones : Mean Daily Returns



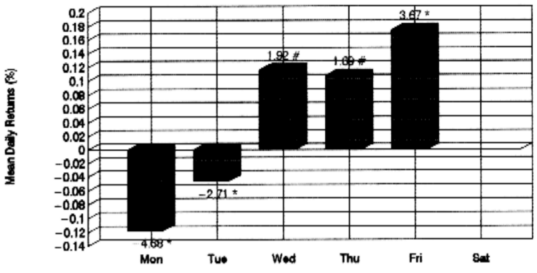
KLSE Composite : Mean Daily Returns



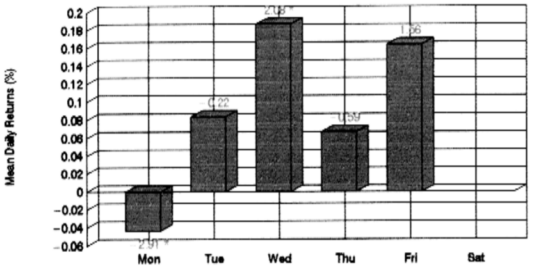
FTSE 100 Ind : Mean Daily Returns



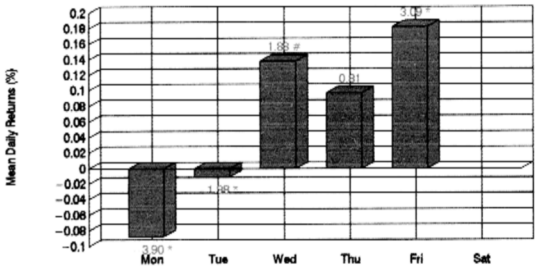
KLSE Industrial : Mean Daily Returns



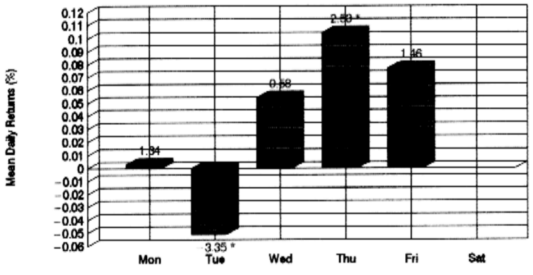
Hang Seng : Mean Daily Returns



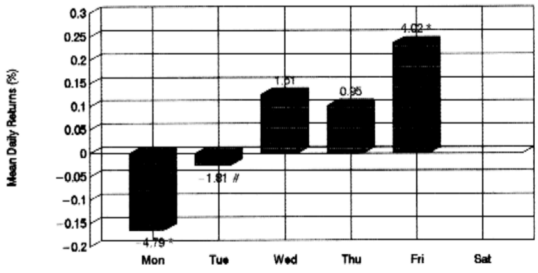
KLSE Finance : Mean Daily Returns



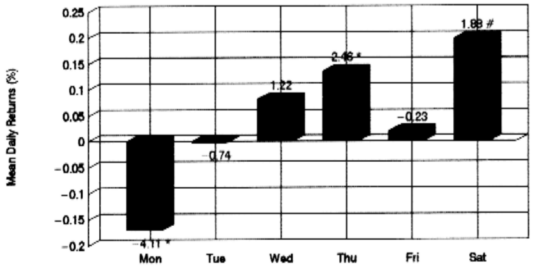
Aust All Ord : Mean Daily Returns



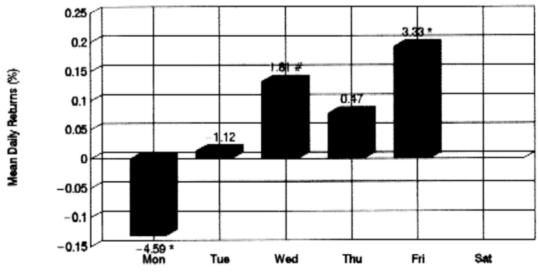
KLSE Properties : Mean Daily Returns



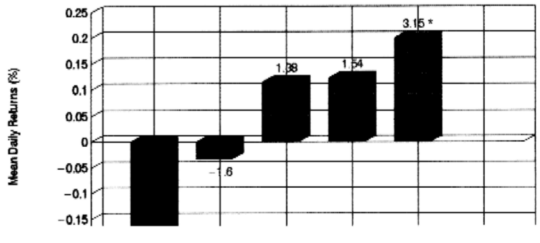
Nikkei 225 : Mean Daily Returns



KLSE Plantation : Mean Daily Returns



KLSE Tin/Mining : Mean Daily Returns



Remarks :–

Nikkei 225 (Period : 1983–1996)
DJIA and FTSE 100 (Period : 1977–1996)
All Others (Period : 1976–1996)
*** Statistically Significant At 0.05**
 # Statistically Significant At 0.10
Figures Above Bar = t–Statistics

Table 1 :Test Statistics For Whole Period And Ten Years Sub–Periods (KLSE Indices).

Day Of The Week Effects For :–	Period : 1976–96 Mean	Test Stat	Stat. Prob.	Period : 1977–86 Mean	Test Stat	Stat. Prob.	Period : 1987–96 Mean	Test Stat	Stat. Prob.
1. KLSE Composite Index									
Monday *	–0.1334	–5.0200	0.00	–0.1120	–3.2000	0.00	–0.1544	–3.8700	0.00
Tuesday *	–0.0337	–2.4100	0.02	–0.0858	–2.7300	0.01	0.0183	–0.8000	0.42
Wednesday *	0.1245	1.8700	0.06	0.0802	0.6500	0.52	0.1686	1.9200	0.06
Thursday *	0.1299	2.0100	0.04	0.1271	1.6100	0.11	0.1327	1.2700	0.21
Friday *	0.1796	3.4200	0.00	0.2212	3.5800	0.00	0.1389	1.4100	0.16
Oneway ANOVA		10.1160	0.00		6.7381	0.00		4.6106	0.00
Bartlett's Test		25.3290	0.00		9.0010	0.00		16.1130	0.00
Tukey's HSD Test	1–3;1–4;1–5;2–4;2–5			1–4;1–5; 2–4;2–5.			1–3;1–4; 1–5		
Kruskal–Wallis		46.6023	0.00		28.8559	0.00		23.6888	0.00
2. KLSE Industrial Index									
Monday *	–0.1173	–4.6800	0.00	–0.1088	–2.9700	0.00	–0.1453	–3.8400	0.00
Tuesday *	–0.0459	–2.7100	0.01	–0.0662	–2.1400	0.03	0.0005	–1.1600	0.25
Wednesday *	0.1163	1.9200	0.06	0.0401	0.0500	0.96	0.1844	2.2800	0.02
Thursday *	0.1080	1.6900	0.09	0.1320	1.9700	0.05	0.0975	0.6500	0.52
Friday *	0.1750	3.6700	0.00	0.1811	3.0200	0.00	0.1664	1.9800	0.05
Oneway ANOVA		9.9169	0.00		5.3113	0.00		5.1595	0.00
Bartlett's Test		28.4910	0.00		6.5420	0.00		18.9380	0.00
Tukey's HSD Test	1–4;1–3;1–5;2–3;2–4;2–5			1–4;1–5; 2–5.			1–3;1–4; 1–5		
Kruskal–Wallis		47.5742	0.00		24.7129	0.00		24.6108	0.00
3. KLSE Finance Index									
Monday *	–0.0874	–3.9000	0.00	–0.0588	–2.2600	0.02	–0.1222	–3.2800	0.00
Tuesday *	–0.0108	–1.9800	0.05	–0.0063	–1.2800	0.20	–0.0082	–1.4000	0.16
Wednesday *	0.1382	1.8800	0.06	0.1298	1.3900	0.17	0.1504	1.2600	0.21
Thursday *	0.0970	0.8100	0.42	0.0672	0.1600	0.88	0.1435	1.1500	0.25
Friday *	0.1826	3.0900	0.00	0.1566	1.9300	0.05	0.2018	2.1800	0.03
Oneway ANOVA		6.6026	0.00		2.4913	0.04		4.1043	0.00
Bartlett's Test		19.2550	0.00		13.8290	0.00		7.7810	0.00
Tukey's HSD Test	1–4;1–3; 1–5;2–5.			No 2 Groups Were Sig. Diff			1–3;1–4; 1–5.		
Kruskal–Wallis		34.1374	0.00		15.2152	0.00		19.8340	0.00
4. KLSE Properties Index									
Monday *	–0.1644	–4.7900	0.00	–0.0926	–2.5100	0.01	–0.2458	–4.1200	0.00
Tuesday *	–0.0254	–1.8100	0.07	–0.0792	–2.3200	0.02	0.0441	–0.3700	0.71
Wednesday *	0.1259	1.5100	0.13	0.0758	0.4300	0.67	0.1917	1.5700	0.12
Thursday *	0.1006	0.9500	0.34	0.1187	1.2000	0.23	0.0931	0.2700	0.79
Friday *	0.2366	4.0200	0.00	0.2241	3.1200	0.00	0.2608	2.5400	0.01
Oneway ANOVA		9.1603	0.00		4.6158	0.00		5.2409	0.00
Bartlett's Test		30.3950	0.00		4.2950	0.00		30.0670	0.00
Tukey's HSD Test	1–4;1–3; 1–5;2–5.			1–5;2–5			1–3;1–4; 1–5.		
Kruskal–Wallis		56.5003	0.00		24.8922	0.00		33.7126	0.00
5. KLSE Plantations Index									
Monday *	–0.1319	–4.5900	0.00	0.0092	–1.0900	0.28	–0.2815	–4.7100	0.00
Tuesday *	0.0129	–1.1200	0.26	–0.0811	–3.1400	0.00	0.1131	0.6500	0.51
Wednesday *	0.1325	1.8100	0.07	0.0617	0.0600	0.95	0.2144	2.0600	0.04
Thursday *	0.0778	0.4700	0.64	0.1260	1.5200	0.13	0.0394	–0.3600	0.72
Friday *	0.1919	3.3300	0.00	0.1728	2.6000	0.01	0.2247	2.2500	0.02
Oneway ANOVA		7.4076	0.00		4.0291	0.00		6.4661	0.00
Bartlett's Test		42.5650	0.00		6.6980	0.00		28.6310	0.00
Tukey's HSD Test	1–3;1–4; 1–5;2–5			2–4;2–5.			1–2;1–3; 1–4;1–5.		
Kruskal–Wallis		43.3276	0.00		22.8485	0.00		28.6770	0.00
6. KLSE Tin/Mining Index									
Monday *	–0.1841	–4.5700	0.00	–0.0329	–0.9700	0.33	–0.3451	–4.5700	0.00
Tuesday *	–0.0328	–1.6000	0.11	–0.1048	–2.4300	0.02	0.0335	–0.4600	0.64
Wednesday *	0.1153	1.3800	0.17	0.0287	0.2400	0.81	0.2079	1.4600	0.15
Thursday *	0.1228	1.5400	0.12	0.0455	0.5800	0.56	0.2025	1.4000	0.16
Friday *	0.2002	3.1500	0.00	0.1410	2.5400	0.01	0.2589	2.0700	0.04
Oneway ANOVA		7.5730	0.00		2.7369	0.03		5.2409	0.00
Bartlett's Test		7.6020	0.00		15.3820	0.00		30.0670	0.00
Tukey's HSD Test	1–3;1–4; 1–5;2–5			2–5.			1–3;1–4; 1–5.		
Kruskal–Wallis		37.3284	0.00		18.6645	0.00		33.7126	0.00

Footnote : * Independent samples t–test statistics for the respective day against rest of the days in the week

days' return for the Composite and Industrial indices. Therefore, Tuesday effect also existed alongside the Monday effect on the local stock exchange. In addition, independent t-test results showed that Friday's return (the largest during the week) differ significantly from the rest of the day-of-the-week's return for all the indices analysed. Therefore, Friday effect also prevailed on the KLSE during the period 1976-1996.

Oneway ANOVA results obtained for the overall period confirmed that at least one of the group's mean return differs significantly from another group's mean return as all the respective null hypotheses were rejected for all the local indices studied i.e. Composite, Industrial, Finance, Properties, Plantation, and Tin/Mining.

Since the above t-test and Oneway ANOVA presupposed normal distribution and equality of variances, it is therefore essential to conduct testing for homogeneity of variances using Bartlett's test. Research findings for the overall period in Table 1 showed that the variances for all the indices were non-homogeneous since their respective null hypotheses were rejected. The above failure to document homogeneity of variances for the respective indices requires us to conduct the Kruskal-Wallis test. This test provides a method for comparison of means for independent sample groups with not necessarily equal variances but nearly the same distribution type.

The Kruskal-Wallis test results obtained for the overall period also rejected their respective null hypotheses for Composite, Industrial, Finance, Properties, Plantations and Tin/Mining indices. It implies that despite the non-homogeneity of variances at least one of the group's mean does not originate from the same population, thus supporting our earlier t-Test and Oneway ANOVA findings that at least one of the group's mean return differed from another group's mean return on the on the local capital market.

In order to identify which group's mean differ significantly from another group's mean return, we performed the Tukey's test for the respective indices. From the Tukey's test results obtained for the overall period shown in Table 1, we can deduce that Monday's return differs significantly from Wednesday's, Thursday's and Friday's returns for the Conposite, Industrial, Finance, Properties, Plantations and Tin/Mining indices. Thus we can safely conclude that Monday effect continued to prevail on the domestic market. In addition, Tukey's test also showed that Tuesday's return differs from Friday's return for all the indices. It also differs from Thursday's return for Composite and Industrial indices. Thus, a weak Tuesday's effect existed alongside the pronounced Monday's effect on the KLSE.

We can therefore summarise that Monday's effect continued to prevail on the local bourse based on the results obtained from all the KLSE indices for the 25-year data under review. In addition, a weak Tuesday's effect also existed alongside the Monday's effect for the Composite and Industrial indices.

4.2 Patterns in Major International Bourse's Monday Effect For The Whole Period Under Review (1976-1996).

From Graph 1, it appeared that the Hong Kong, Tokyo and London markets exhibited the lowest weekly return on Monday whilst the Australian market exhibited the lowest return on Tuesday. However, the lowest weekly return occurred on Thursday in the US but Monday's return was also low. Are these Monday effect observed on Hong Kong, Tokyo and London markets or Tuesday effect on Australian market statistically significant?

From the independent samples t-test results in Table 2, we deduce that statistically significant Monday effect prevailed on the Hong Kong, London and Tokyo markets since their respective null hypotheses were rejected. Similarly t-test revealed that the Tuesday effect noted on the Australian bourse was significant. There was no Monday effect noted for the US market.

Table 2 : Test Statistics For Whole Period And Ten Years Sub−Periods (International Indices).

Day Of The Week Effects For :−	Period : 1976−96 Mean	Test Stat	Stat. Prob.	Period : 1977−86 Mean	Test Stat	Stat. Prob.	Period : 1987−96 Mean	Test Stat	Stat. Prob.
1. Hang Seng Index									
Monday *	−0.0436	−2.9100	0.00	−0.0239	−1.5800	0.12	−0.0884	−2.9000	0.00
Tuesday *	0.0834	−0.2200	0.83	0.0008	1.2500	0.21	0.1907	1.5300	0.13
Wednesday *	0.1877	2.0800	0.04	0.1548	0.8600	0.39	0.2037	1.8100	0.07
Thursday *	0.0671	−0.5900	0.55	0.1041	0.1500	0.88	0.0365	−0.9700	0.33
Friday *	0.1643	1.5600	0.12	0.2162	1.7400	0.08	0.1244	0.4800	0.63
Oneway ANOVA		3.1318	0.01		1.5708	0.18		3.0648	0.02
Bartlett's Test		50.1200	0.00		19.1780	0.00		31.7620	0.00
Tukey's HSD Test	1−5;1−3.			No 2 Groups Were Sig. Diff			1−2;1−3		
Kruskal−Wallis		8.8256	0.07		8.3265	0.08		6.4695	0.17
2. Australian All Ordinaries Index									
Monday *	0.0029	1.3400	0.18	0.0498	−0.3500	0.72	−0.0204	−0.9700	0.33
Tuesday *	−0.0509	−3.3500	0.00	−0.0784	−4.0500	0.00	−0.0115	−0.7700	0.44
Wednesday *	0.0543	0.5800	0.56	0.0629	0.0200	0.98	0.0426	0.5000	0.61
Thursday *	0.1043	2.5300	0.01	0.1585	2.9200	0.00	0.0372	0.3800	0.71
Friday *	0.0773	1.4600	0.14	0.1060	1.3200	0.19	0.0560	0.8200	0.41
Oneway ANOVA		4.3905	0.00		5.3911	0.00		0.5208	0.72
Bartlett's Test		48.1800	0.00		3.8760	0.00		45.4460	0.00
Tukey's HSD Test	2−5;2−4			2−4;2−5			No 2 Groups Were Sig. Diff.		
Kruskal−Wallis		27.3433	0.00		32.1380	0.00		1.6683	0.80
3. Dow Jones Industrial Average Index									
Monday *	0.0147	−1.1300	0.26	−0.0391	−2.1000	0.04	0.0639	0.2700	0.79
Tuesday *	0.0593	0.4100	0.69	0.0634	0.5400	0.59	0.0566	0.0800	0.93
Wednesday *	0.1033	2.0200	0.04	0.0995	1.5300	0.13	0.1067	1.3500	0.18
Thursday *	0.0112	−1.3000	0.19	0.0228	−0.5300	0.59	0.0008	−1.2500	0.21
Friday *	0.0469	−0.0300	0.98	0.0621	0.5100	0.61	0.0332	−0.4500	0.65
Oneway ANOVA		1.4332	0.22		1.5239	0.19		0.7267	0.57
Bartlett's Test		43.1680	0.00		4.2400	0.00		46.2760	0.00
Tukey's HSD Test	No 2 Groups Were Sig. Diff			No 2 Groups Were Sig. Diff			No 2 Groups Were Sig. Diff		
Kruskal−Wallis		3.8275	0.43		3.5078	0.48		7.4255	0.12
4. FTSE 100 Industrial Index									
Monday *	−0.0760	−3.6600	0.00	−0.0661	−2.4000	0.02	−0.0853	−2.7700	0.01
Tuesday *	0.1150	1.9400	0.05	0.1260	1.6200	0.11	0.1047	1.1500	0.25
Wednesday *	0.0829	1.0500	0.29	0.0829	0.7500	0.45	0.0828	0.7300	0.47
Thursday *	−0.0015	−1.5600	0.12	−0.0470	−2.1000	0.04	0.0400	−0.1800	0.86
Friday *	0.1205	2.1900	0.03	0.1452	2.1100	0.04	0.0971	1.0300	0.31
Oneway ANOVA		5.1395	0.00		3.5777	0.01		2.1450	0.07
Bartlett's Test		72.5120	0.00		4.3030	0.00		94.5970	0.00
Tukey's HSD Test	1−2;1−3; 1−5.			1−5			No 2 Groups Were Sig. Diff		
Kruskal−Wallis		25.5569	0.00		20.5331	0.00		6.9966	0.14
5. Nikkei 225 Index									
Monday *	−0.1698	−4.1100	0.00	−0.0673	−2.8100	0.01	−0.2418	−2.7800	0.01
Tuesday *	−0.0025	−0.7400	0.46	−0.0572	−3.2400	0.00	0.0512	1.0400	0.30
Wednesday *	0.0825	1.2200	0.22	0.2330	3.4100	0.00	−0.0622	−0.5100	0.61
Thursday *	0.1365	2.4600	0.01	0.1082	0.5100	0.61	0.1647	2.5800	0.01
Friday *	0.0202	−0.2300	0.82	0.0963	0.2300	0.82	−0.0546	−0.3500	0.72
Saturday	0.1978	1.8800	0.06	1.9780	1.8300	0.07			
Oneway ANOVA		4.8252	0.00		5.6665	0.00		3.1868	0.01
Bartlett's Test		33.4240	0.00		17.5830	0.00		9.4670	0.00
Tukey's HSD Test	1−3;1−4; 1−6.			1−3;1−6; 2−3;2−6.			1−4		
Kruskal−Wallis		30.7260	0.00		34.0878	0.00		15.5248	0.00

Footnote : * Independent samples t−test statistics for the respective day against rest of the days in the week

Oneway ANOVA results in Table 2 confirmed that at least one of the group's mean return differed from another group's mean return for the Hong Kong, Australian, London and Tokyo markets. There was no differences amongst the means of the various group for the US market.

Bartlett's test results in Table 2 showed that non-homogeneity in variances existed for all the five international bourses. Therefore, the assumption of equality of variances in the t-test and oneway ANOVA was invalid. We need to proceed with the Kruskal-Wallis test to confirm our earlier t-test and oneway ANOVA findings.

From the Kruskal-Wallis results in Table 2, despite the non-homogeneous variances, at least one of the group's mean return differed from another group's mean return for the Australian, London and Tokyo markets. From the Tukey's test findings in Table 2, we conclude that there was Monday effect on the Hong Kong, London and Tokyo markets whilst Tuesday effect existed on the Australian market. There was no weekend effect on the US stock market.

Thus, we can summarise from the various statistical tests that for the overall 25-year data studied, Monday's effect continued to exist on the Hong Kong, London and Tokyo markets. Tuesday effect was found on the Australian market. There was no weekend effect on the US market.

4.3 EVOLUTION OF MONDAY EFFECT OVER TEN-YEAR SUB-PERIOD ANALYSIS.

4.3.1 Monday Effect For The Ten-Year Sub-Period From 1977-1986.

During the period 1977-1986, the local stock market showed large negative Monday's return for the Composite, Industrial, Finance, and Properties indices. However, the Plantations and Tin/ Mining indices posted a large negative Tuesday's return. Friday's return was the highest for all these six sectoral indices. Is this Monday or Tuesday effect observed in Graph 2 statistically significant?

From the t-test results in Table 1, we deduced that there was Monday effect for the Composite, Industrial, Finance and Properties indices. Further, t-test showed that there was Tuesday effect for the Tin/Mining and Plantations. Oneway ANOVA revealed that at least one of the group's mean return differed from another group's mean return for all the six indices studied. Tukey's test confirmed that there was Monday effect for the Composite, Industrial and Properties indices. In addition, there was Tuesday effect for the Plantations and Tin/Mining indices.

However, Bartlett's test showed that the presumption of a homogeneous variance used in earlier t-test and oneway ANOVA was invalid for all the six indices. Thus we need to conduct the Kruskal-Wallis

test. From the Kruskal-Wallis results in Table 1, we conclude that despite the non-homogeneity in variances, at least one of the group's mean differed from another group's mean. Thus, this confirms our earlier t-test and oneway ANOVA results.

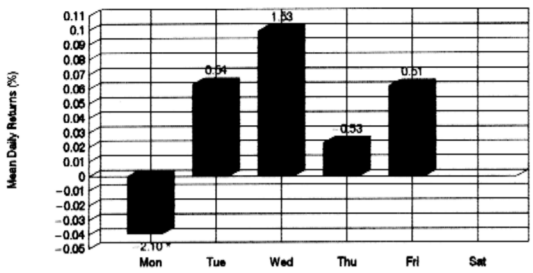
On the international front, Graph 2 showed that the lowest weekly return occurred on Monday for the US, London, Hong Kong and Tokyo markets whilst the Australian market recorded the lowest weekly return on Tuesday during the ten-year sub-period from 1977-86. Is this Monday or Tuesday effect statistically significant?

The statistical results for major international bourses during the first ten-year sub-period from 1977-1986 are shown in Table 2. From the t-test results, we deduce that Monday effect was noted for the US, London, and Tokyo markets. Tuesday effect was noted for the Tokyo and Australian markets. Oneway ANOVA showed that at least one of the group's mean differed from another group's mean for the Australian, London and Tokyo markets. From the Tukey's test, we conclude that there was Monday effect on the London and Tokyo markets. However, Tuesday effect prevailed on the Australian and Tokyo markets.

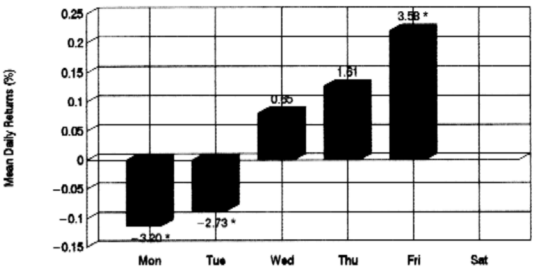
Bartlett's test revealed that further statistical testing via Kruskal-Wallis test are required for all the five international bourses as the assumption of equality of variances used in earlier t-test and oneway

Graph 2 : Mean Daily Returns For Ten Years Sub–Period From 1977–86

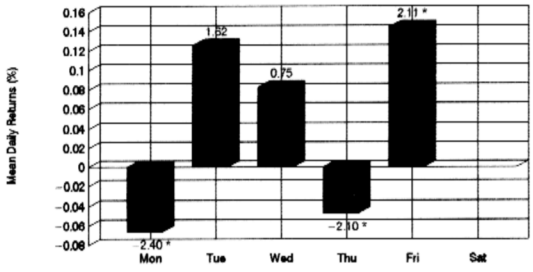
Dow Jones : Mean Daily Returns



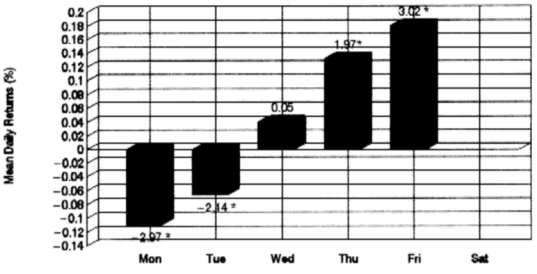
KLSE Composite : Mean Daily Returns



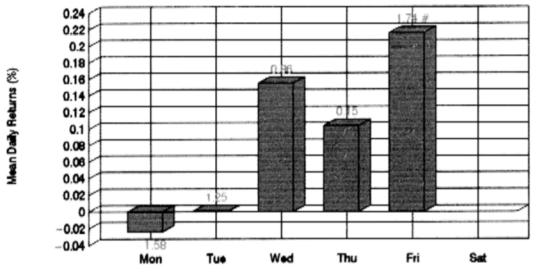
FTSE 100 Ind : Mean Daily Returns



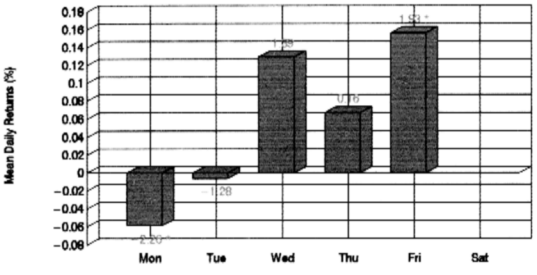
KLSE Industrial : Mean Daily Returns



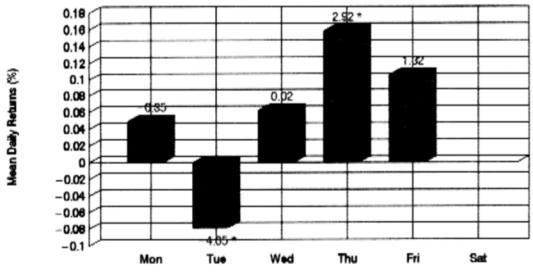
Hang Seng : Mean Daily Returns



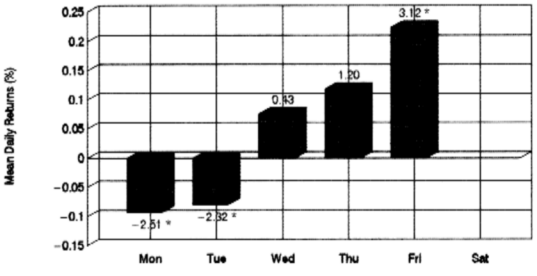
KLSE Finance : Mean Daily Returns



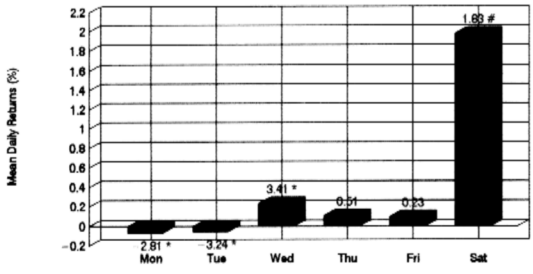
Aust All Ord : Mean Daily Returns



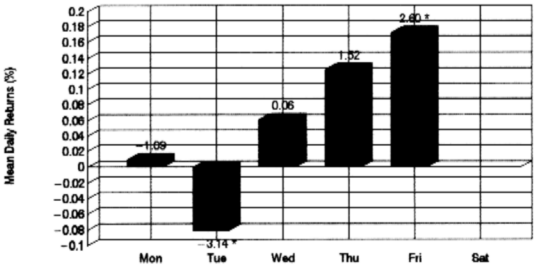
KLSE Properties : Mean Daily Returns



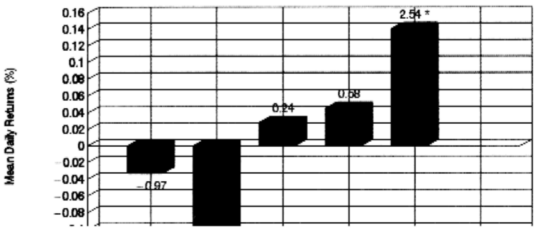
Nikkei 225 : Mean Daily Returns



KLSE Plantation : Mean Daily Returns



KLSE Tin/Mining : Mean Daily Returns



Remarks :–

Nikkei 225 (Period : 1963–1989)
All Others (Period : 1977–1986)
* Statistically Significant At 0.05
# Statistically Significant At 0.10
Figures Above Bar = t–Statistics

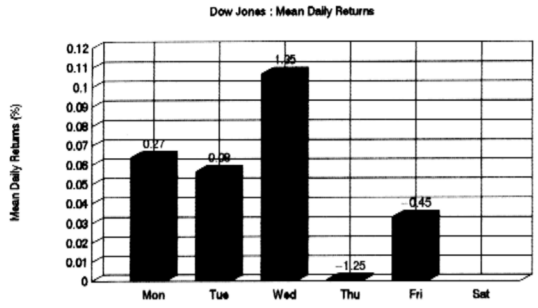
ANOVA were invalid. Kruskal-Wallis results confirmed that only the Australian, London and Tokyo markets showed differences in at least one of the group's mean vis-à-vis the rest of the populations.

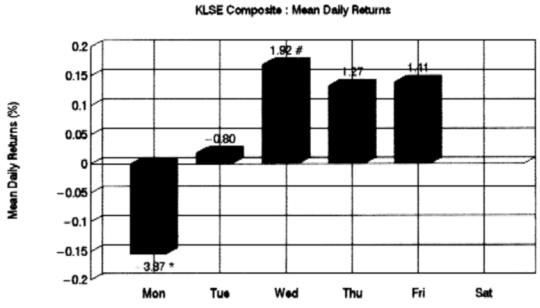
In short, we conclude that during the period 1977-1986, there was strong evidence that Monday effect prevailed for the Composite, Industrial, Finance and Properties indices. Similarly, Monday effect was found on Tokyo and London markets. The Monday effect on the US market was mild (supported only by t-test findings but may be invalid due to non-homogeneity in variances). There was no Monday effect recorded in Hong Kong. However, Tuesday effect existed for the Plantation and Tin/Mining indices. The Australian market also exhibited a Tuesday effect.

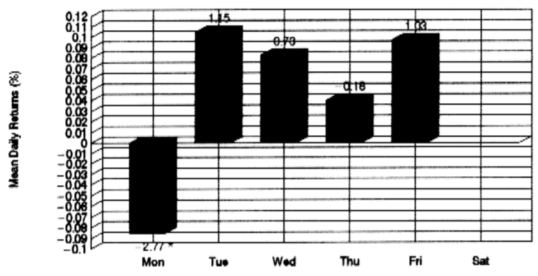
4.3.2 Monday Effect For The Ten-Year Sub-Period From 1987-1996.

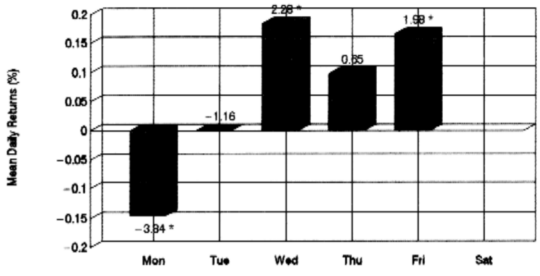
Graph 3 depicted the evolution of the weekly seasonality for both domestic and international markets from 1987-1996. Large negative Monday returns were noted for all the six local indices. The Australian, Tokyo, Hong Kong and London indices also indicated large negative Monday returns. There was no negative Monday or Tuesday return for the US market. Are these Monday effects on both local and international markets statistically significant?

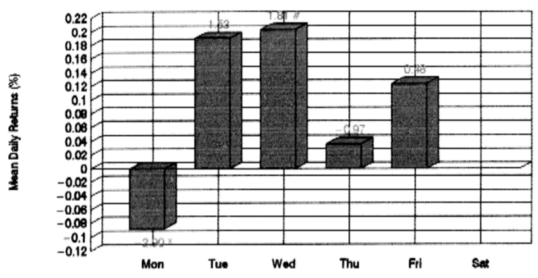
Graph 3 : Mean Daily Returns For Ten Years Sub–Period From 1987–96

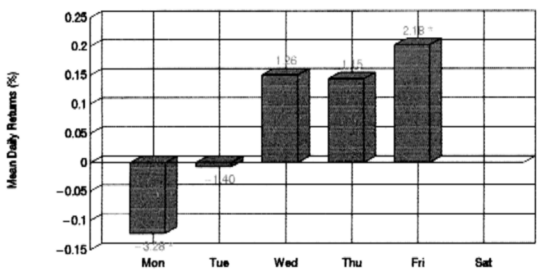


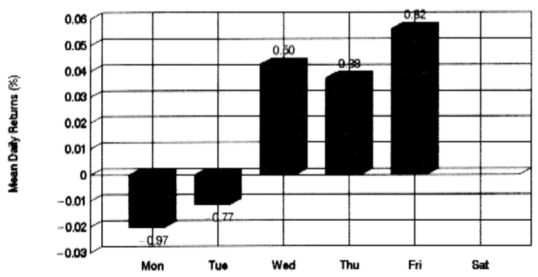


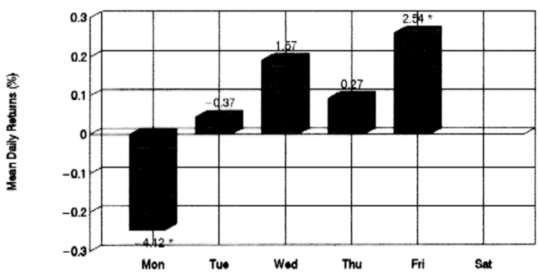


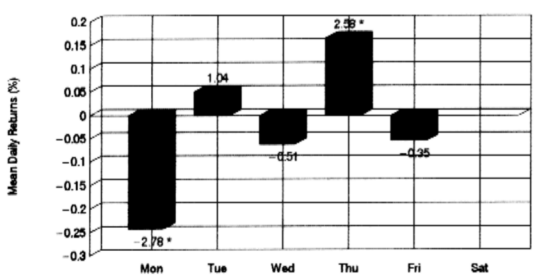


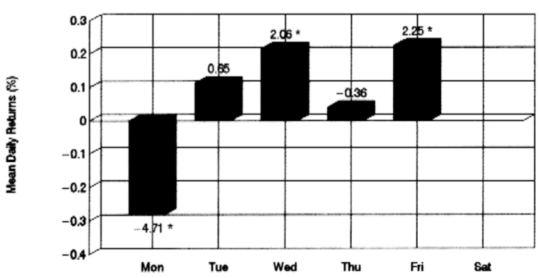


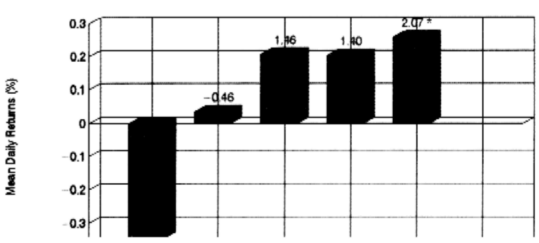












Remarks :–

Nikkei 225 (Period : 1990–1996)
All Others (Period : 1987–1996)
*** Statistically Significant At 0.05**
 # Statistically Significant At 0.10
Figures Above Bar = t–Statistics

The statistical results for the second ten-year sub-period from 1987-1996 for the domestic stock market are shown in Table 1. From the various statistical test results i.e. t-test, oneway ANOVA, Bartlett's test, Kruskal-Wallis test and Tukey's test, we can conclude that despite non-homogeneity in variances shown by Bartlett's tests, all the six local indices exhibited strong Monday effects during the second ten-year sub-period from 1987-1996. Thus, the Monday effect observed for all the six local indices seen in Graph 3 are statistically significant.

As for the major international stock markets, the second ten-year sub-period results (1987-1996) are shown in Table 2. The t-test results showed that Monday effect existed on the Hong Kong, London and Tokyo markets. Oneway ANOVA results supported above findings only for Hong Kong and Tokyo markets. From the Tukey's results, we conclude that only Hong Kong and Tokyo market exhibited Monday effect. There was non-homogeneity in variances for all the international bourses as shown by Bartlett's test results. Therefore, we proceed with the Kruskal-Wallis test. Kruskal-Wallis test showed that inspite of above non-homogeneity, only Tokyo market exhibited Monday effect. The Monday effect on the London bourse was mild (supported only by t-test and may be invalid due to non-homogeneity in variances). There was no weekend effect noted for the US and Australian markets.

4.3.3 Summary For The Ten-Year Sub-Period Analysis For Monday Effect.

The conclusions deduced from our ten-year sub-period analysis are summarised in Table 3. It is noted that the Tuesday effects observed for the Plantations and Tin/Mining indices during 1977-1986 sub-period has shifted to Monday effect during the 1987-1996 sub-period. Monday effect persisted throughout the two ten-year sub-periods for the Composite, Industrial, Finance, and Properties indices.

On the international markets, the mild Monday effect on the US market during 1977-1986 has disappeared in the 1987-1996 sub-period. The Tuesday effect noted on the Australian market during 1977-1986 has also disappeared during 1987-1996. The Monday effect that existed on the London market during 1977-1986 has become mild during the second ten-year sub-period from 1987-1996. Tokyo market continued to exhibit Monday effect throughout the two ten-year sub-periods.

Thus, we can deduce from our ten-year sub-period analysis that there is a tendency for information pertaining development on leading world financial markets (i.e. New York and London) being discounted faster as market infrastructure and information dissemination improve over time. Could this be the cause for a shift from Tuesday effect to a Monday effect as observed on the KLSE Plantations and Mining/Tin indices?

Table 3 : Summary Of The Day–Of–The–Week Effect For Ten–Year Sub–Period Analysis.

Sub–Period	Overall Period 1976–1996	Ten–Year Sub–Period	
		1977–1986	1987–1996
Dow Jones	No Weekend Effect	Mild Monday Effect	No Weekend Effect
FTSE 100 Industrial	Monday Effect	Monday Effect	Mild Monday Effect
Aust. All Ordinaries	Tuesday Effect	Tuesday Effect	No Weekend Effect
Nikkei 225	Monday Effect	Monday Effect	Monday Effect
Hang Seng	Monday Effect	No Weekend Effect	Monday Effect
KLSE Composite	Monday/Mild Tuesday Effects	Monday Effect	Monday Effect
KLSE Industrial	Monday/Mild Tuesday Effects	Monday Effect	Monday Effect
KLSE Finance	Monday Effect	Monday Effect	Monday Effect
KLSE Properties	Monday Effect	Monday Effect	Monday Effect
KLSE Plantations	Monday Effect	Tuesday Effect	Monday Effect
KLSE Tin/Mining	Monday Effect	Tuesday Effect	Monday Effect

In addition, as trading volumes expand and pools of specialised funds grow in the developed markets (i.e. New York, London and Sydney), the markets appeared to have learn from their past experiences resulting in these anomalies being arbitraged. This could possibly explain the resultant shift in the pattern of weekend effect from Tuesday to Monday and finally disappeared from some of these stock markets.

4.4 EVOLUTION OF MONDAY EFFECT OVER FIVE-YEAR SUB-PERIOD ANALYSIS.

4.4.1 Monday Effect For Five-Year Sub-Period From 1977-81.

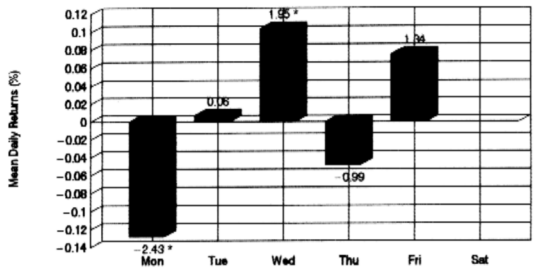
Graph 4 shows the evolution for daily returns for the five-year sub-period 1977-1981. The Pacific Basin markets (i.e. all KLSE, Hong Kong and Australian indices) showed the lowest return on Tuesday. The US market recorded the lowest return on Monday. There was no weekend effect noted for the London market. Are these weekend effects statistically significant?

From Tables 4A and 4B, the various statistical tests confirmed that the Tuesday effects for the Composite, Industrial and Properties indices was strongly significant. However, the Tuesday effect noted for the Finance, Plantation and Tin/Mining indices were mild (supported only by t-tests results which may be invalid due to non-homogeneity of variances). Overall, there appeared to be a Tuesday effect prevailing during 1977-1981 on the KLSE.

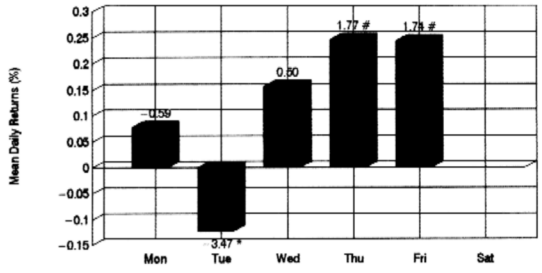
Tables 5A and 5B showed the overseas bourses test statistics for 1977-1981. We can deduce from the various statistical test that Monday effect prevailed on the US market whilst Tuesday effect existed on the Australian market. There was no weekend effect for London and Hong Kong markets.

Graph 4 : Mean Daily Returns For Five Years Sub–Period From 1977–81

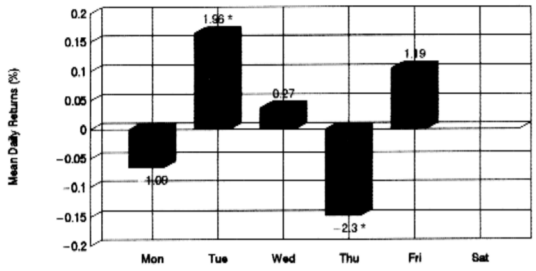
Dow Jones : Mean Daily Returns



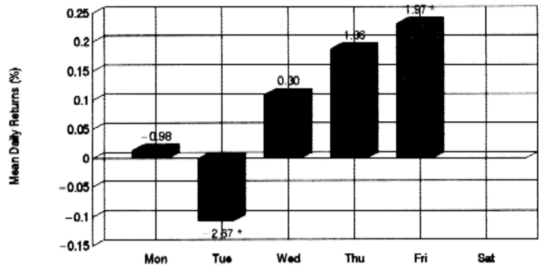
KLSE Composite : Mean Daily Returns



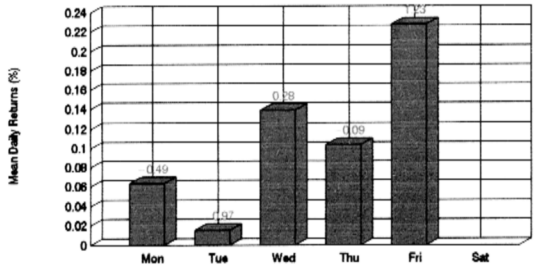
FTSE 100 Ind : Mean Daily Returns



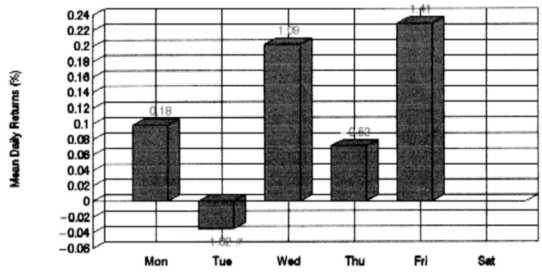
KLSE Industrial : Mean Daily Returns



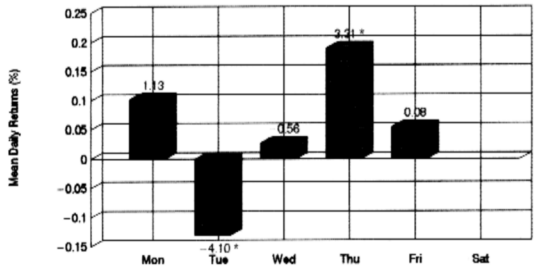
Hang Seng : Mean Daily Returns



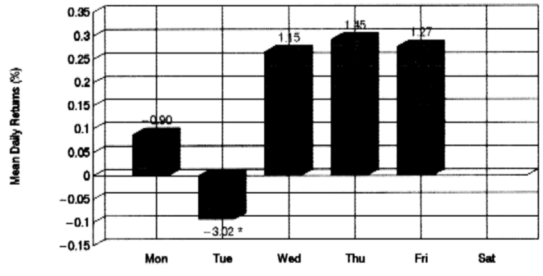
KLSE Finance : Mean Daily Returns



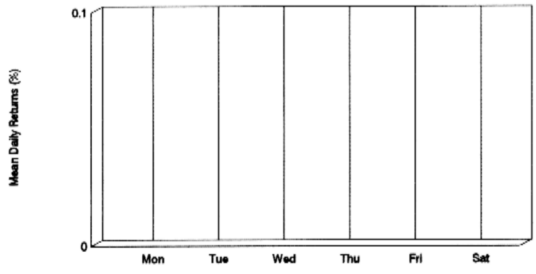
Aust All Ord : Mean Daily Returns



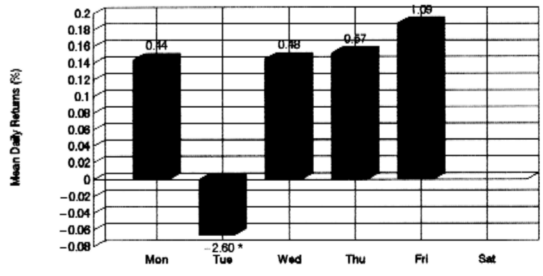
KLSE Properties : Mean Daily Returns



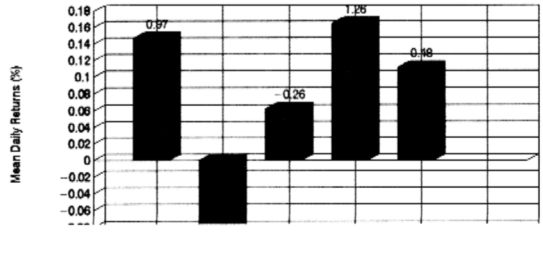
Nikkei 225 : Mean Daily Returns



KLSE Plantation : Mean Daily Returns



KLSE Tin/Mining : Mean Daily Returns



Remarks :–

*** Statistically Significant At 0.05**

 # Statistically Significant At 0.10

Figures Above Bar = t–Statistics

Table 4A :Test Statistics For Five Years Sub–Periods (KLSE Indices).

Day Of The Week Effects For :–	Period : 1977–81		Stat.	Period : 1982–86		Stat.	Period : 1987–91		Stat.	Period : 1992–96		Stat.
	Mean	Test Stat	Prob.	Mean	Test Stat	Prob.	Mean	Test Stat	Prob.	Mean	Test Stat	Prob.
1. KLSE Composite Index												
Monday *	0.0786	−0.5900	0.55	−0.3003	−3.9900	0.00	−0.1423	−2.1900	0.03	−0.1663	−3.5400	0.00
Tuesday *	−0.1221	−3.4700	0.00	−0.0492	−0.3600	0.72	−0.0209	−0.8600	0.39	0.0566	−0.2000	0.84
Wednesday *	0.1566	0.5000	0.61	0.0013	0.3700	0.71	0.1210	0.7200	0.47	0.2147	2.2300	0.03
Thursday *	0.2463	1.7700	0.08	0.0094	0.5000	0.62	0.2365	2.0300	0.04	0.0306	−0.6000	0.55
Friday *	0.2435	1.7400	0.08	0.1994	3.3700	0.00	0.0787	0.2600	0.80	0.1979	2.0100	0.05
Oneway ANOVA		3.7721	0.00		5.5980	0.00		2.0590	0.08		4.4131	0.00
Bartlett's Test		3.9390	0.00		5.4990	0.00		22.3070	0.00		1.7940	0.13
Tukey's HSD Test	2–5;2–4			1–3;1–4; 1–5			No 2 Groups Were Sig. Diff			1–3;1–5		
Kruskal–Wallis		17.9899	0.00		26.5274	0.00		8.9683	0.06		20.9024	0.00
2. KLSE Industrial Index												
Monday *	0.0142	−0.9800	0.33	−0.2307	−3.4100	0.00	−0.1364	−2.3000	0.02	−0.1543	−3.2100	0.00
Tuesday *	−0.1068	−2.6700	0.01	−0.0252	−0.2000	0.84	0.0051	−0.6000	0.55	−0.0041	−1.0900	0.28
Wednesday *	0.1094	0.3000	0.77	−0.0313	−0.2900	0.77	0.1574	1.2500	0.21	0.2104	2.0300	0.04
Thursday *	0.1870	1.3600	0.18	0.0779	1.4500	0.15	0.1802	1.5400	0.12	0.0163	−0.8000	0.42
Friday *	0.2313	1.9700	0.05	0.1323	2.3600	0.02	0.0602	0.0700	0.94	0.2704	2.9700	0.00
Oneway ANOVA		2.7887	0.03		3.9103	0.00		1.9285	0.10		5.0671	0.00
Bartlett's Test		5.0070	0.00		2.5150	0.04		22.9610	0.00		1.6000	0.17
Tukey's HSD Test	2–5			1–4;1–5			No 2 Groups Were Sig. Diff			1–3;1–5		
Kruskal–Wallis		11.7509	0.02		21.0464	0.00		8.6982	0.07		22.2713	0.00
3. KLSE Finance Index												
Monday *	0.0985	−0.1800	0.85	−0.2099	−3.4600	0.00	−0.1164	−1.4700	0.14	−0.1280	−3.3100	0.00
Tuesday *	−0.0352	−1.8200	0.07	0.0219	0.2600	0.80	−0.0833	−1.1200	0.26	0.0653	−0.8600	0.39
Wednesday *	0.2020	1.0900	0.28	0.0573	0.8300	0.41	0.0380	0.2200	0.83	0.2591	1.6700	0.10
Thursday *	0.0715	−0.5200	0.60	0.0629	0.9400	0.35	0.1737	1.7300	0.08	0.1138	−0.2300	0.82
Friday *	0.2294	1.4100	0.16	0.0877	1.3600	0.17	0.0721	0.6100	0.54	0.3290	2.6400	0.01
Oneway ANOVA		1.3538	0.25		3.1041	0.01		1.3642	0.24		4.3306	0.00
Bartlett's Test		7.8860	0.00		8.1090	0.00		10.8230	0.00		0.4880	0.75
Tukey's HSD Test	No 2 Groups Were Sig. Diff			1–3;1–4; 1–5			No 2 Groups Were Sig. Diff			1–3;1–5		
Kruskal–Wallis		7.4357	0.11		21.6592	0.00		7.1109	0.13		17.3173	0.00

Footnote : Independent samples t–test statistics for the respective day against the rest of the days in the week

Table 4B :Test Statistics For Five Years Sub−Periods (KLSE Indices).

Day Of The Week Effects For :−	Period : 1977−81		Stat	Period : 1982−86		Stat	Period : 1987−91		Stat	Period : 1992−96		Stat
	Mean	Test Stat	Prob.	Mean	Test Stat	Prob.	Mean	Test Stat	Prob.	Mean	Test Stat	Prob.
4. KLSE Properties Index												
Monday *	0.0874	−0.9000	0.37	−0.2655	−2.8100	0.01	−0.1248	−1.7600	0.08	−0.3658	−3.9900	0.00
Tuesday *	−0.0933	−3.0200	0.00	−0.0654	−0.0700	0.95	0.0400	−0.2000	0.83	0.0482	−0.3100	0.76
Wednesday *	0.2652	1.1500	0.25	−0.1144	−0.7400	0.46	0.0051	−0.5400	0.59	0.3721	2.6300	0.01
Thursday *	0.2920	1.4500	0.15	−0.0481	0.1800	0.86	0.2519	1.8400	0.07	−0.0631	−1.3200	0.19
Friday *	0.2765	1.2700	0.20	0.1745	3.3600	0.00	0.1261	0.6300	0.53	0.3927	2.8700	0.00
Oneway ANOVA		2.9921	0.02		3.9583	0.00		1.4448	0.22		6.6682	0.00
Bartlett's Test		1.6810	0.15		5.9300	0.00		32.7090	0.00		6.0120	0.00
Tukey's HSD Test	2−4			1−5			No 2 Groups Were Sig. Diff			1−3;1−5		
Kruskal−Wallis		10.1848	0.04		−0.0481	0.17		11.8126	0.02		29.5503	0.00
5. KLSE Plantations Index												
Monday *	0.1440	0.4400	0.66	−0.1202	−2.2000	0.03	−0.1677	−2.3000	0.02	−0.3943	−4.1300	0.00
Tuesday *	−0.0662	−2.6000	0.01	−0.0957	−1.8000	0.07	−0.0252	−0.5500	0.58	0.2485	1.1400	0.25
Wednesday *	0.1453	0.4800	0.63	−0.0224	−0.5100	0.61	0.0817	0.7700	0.44	0.3426	1.9500	0.05
Thursday *	0.1522	0.5700	0.57	0.1007	1.6800	0.09	0.0999	1.0100	0.31	−0.0201	−1.0900	0.28
Friday *	0.1877	1.0900	0.27	0.1588	2.7500	0.01	0.0999	1.0300	0.30	0.3469	2.0200	0.04
Oneway ANOVA		1.7422	0.14		3.7587	0.00		1.6637	0.16		5.5499	0.00
Bartlett's Test		4.5140	0.00		4.3170	0.00		18.2390	0.00		15.4620	0.00
Tukey's HSD Test	No 2 Groups Were Sig. Diff			1−5;2−5			No 2 Groups Were Sig. Diff			1−2;1−3; 1−5		
Kruskal−Wallis		10.1347	0.04		22.2235	0.00		6.6299	0.16		29.1072	0.00
6. KLSE Tin/Mining Index												
Monday *	0.1473	0.9700	0.33	−0.2060	−2.1800	0.03	−0.2925	−2.6100	0.01	−0.3972	−3.7800	0.00
Tuesday *	−0.0858	−2.4400	0.02	−0.1234	−1.0800	0.28	−0.1364	−1.3500	0.18	0.1998	0.5600	0.57
Wednesday *	0.0621	−0.2600	0.79	−0.0048	0.5400	0.59	0.1258	0.8100	0.42	0.2873	1.2200	0.22
Thursday *	0.1646	1.2600	0.21	−0.0691	−0.3400	0.73	0.3443	2.6400	0.01	0.0630	−0.4500	0.66
Friday *	0.1121	0.4800	0.63	0.1684	3.0000	0.00	0.0832	0.4700	0.64	0.4311	2.3400	0.02
Oneway ANOVA		1.7627	0.13		3.0657	0.02		3.3166	0.01		4.3909	0.00
Bartlett's Test		4.2060	0.00		12.0810	0.00		2.2750	0.06		2.7620	0.03
Tukey's HSD Test	No 2 Groups Were Sig. Diff			1−5			1−4			1−2;1−3; 1−5		
Kruskal−Wallis		9.7490	0.04		22.7166	0.00		12.1458	0.02		21.5940	0.00

Footnote : Independent samples t−test statistics for the respective day against the rest of the days in the week

Table 5A :Test Statistics For Five Years Sub−Periods (International Indices).

Day Of The Week Effects For :−	Period : 1977−81 Mean	Test Stat	Stat Prob.	Period : 1982−86 Mean	Test Stat	Stat Prob.	Period : 1987−91 Mean	Test Stat	Stat Prob.	Period : 1992−96 Mean	Test Stat	Stat Prob.
1. Hang Seng Index												
Monday *	0.0637	−0.4900	0.63	−0.1103	−1.6800	0.09	−0.2159	−3.2500	0.00	0.0352	−0.8000	0.42
Tuesday *	0.0153	−0.9700	0.33	−0.0131	−0.8100	0.42	0.1981	1.2200	0.22	0.1835	0.9400	0.35
Wednesday *	0.1390	0.2800	0.78	0.1702	0.9000	0.37	0.2068	1.3800	0.17	0.2006	1.1700	0.24
Thursday *	0.1036	−0.0900	0.93	0.1046	0.2800	0.78	0.0401	−0.5200	0.60	0.0329	−0.8700	0.39
Friday *	0.2280	1.2300	0.22	0.2046	1.2400	0.22	0.1826	1.0800	0.28	0.0664	−0.4500	0.65
Oneway ANOVA		0.5531	0.70		1.1798	0.32		3.1028	0.01		0.7709	0.54
Bartlett's Test		9.5480	0.00		0.9807	0.00		40.0930	0.00		4.1640	0.00
Tukey's HSD Test	No 2 Groups Were Sig. Diff			No 2 Groups Were Sig. Diff			1−2;1−3;1−5.			No 2 Groups Were Sig. Diff		
Kruskal−Wallis		4.6766	0.32		5.8081	0.21		7.1899	0.13		3.9612	0.41
2. Australian All Ordinaries Index												
Monday *	0.1021	1.1300	0.26	−0.0012	−1.3900	0.17	−0.0210	−0.4800	0.63	−0.0199	−1.0800	0.28
Tuesday *	−0.1315	−4.1000	0.00	−0.0273	−1.8900	0.06	−0.0294	−0.6000	0.55	0.0063	−0.4900	0.63
Wednesday *	0.0275	−0.5600	0.58	0.0980	0.4900	0.62	0.0446	0.4100	0.68	0.0406	0.2900	0.77
Thursday *	0.1896	3.3100	0.00	0.1271	1.0600	0.29	0.0278	0.1800	0.86	0.0466	0.4400	0.66
Friday *	0.0549	0.0800	0.93	0.1569	1.6400	0.10	0.0489	0.4700	0.64	0.0631	0.8100	0.42
Oneway ANOVA		5.9370	0.00		1.9225	0.10		0.2039	0.94		0.4659	0.76
Bartlett's Test		6.2090	0.00		2.4470	0.05		38.1130	0.00		5.2580	0.00
Tukey's HSD Test	2−5;2−1;2−4.			No 2 Groups Were Sig. Diff			No 2 Groups Were Sig. Diff			No 2 Groups Were Sig. Diff		
Kruskal−Wallis		27.3129	0.00		14.0388	0.01		0.4757	0.98		1.6681	0.80
3. Dow Jones Industrial Average Index												
Monday *	−0.1277	−2.4300	0.02	0.0414	−0.6600	0.51	−0.0680	−1.4100	0.16	0.1976	3.4600	0.00
Tuesday *	0.0073	0.0600	0.95	0.1136	0.6500	0.51	0.1040	0.8400	0.40	0.0072	−1.4900	0.14
Wednesday *	0.1041	1.9500	0.05	0.0953	0.3300	0.74	0.1505	1.5100	0.13	0.0632	−0.0100	0.99
Thursday *	−0.0473	−0.9900	0.32	0.0873	0.1700	0.86	−0.0190	−0.8100	0.42	0.0206	−1.1700	0.24
Friday *	0.0752	1.3400	0.18	0.0530	−0.5100	0.61	0.0287	−0.1600	0.87	0.0378	−0.6900	0.49
Oneway ANOVA		2.5034	0.04		0.2518	0.91		1.1361	0.34		3.2397	0.01
Bartlett's Test		2.9890	0.02		1.6910	0.15		32.5810	0.00		1.2920	0.27
Tukey's HSD Test	1−3			No 2 Groups Were Sig. Diff			No 2 Groups Were Sig. Diff			2−1;2−4		
Kruskal−Wallis		8.5443	0.07		0.7122	0.95		2.6310	0.62		12.5902	0.01

Footnote : * Independent samples t−test statistics for the respective day against the rest of the days in the week.

Table 5B :Test Statistics For Five Years Sub–Periods (International Indices).

Day Of The Week Effects For :–	Period : 1977–81 Mean	Test Stat	Stat Prob.	Period : 1982–86 Mean	Test Stat	Stat Prob.	Period : 1987–91 Mean	Test Stat	Stat Prob.	Period : 1992–96 Mean	Test Stat	Stat Prob.
4. FTSE 100 Industrial Index												
Monday *	–0.0654	–1.0900	0.28	–0.0667	–2.4100	0.02	–0.1761	–2.8500	0.01	0.0097	–0.5700	0.57
Tuesday *	0.1659	1.9600	0.05	0.0901	0.2100	0.83	0.1804	1.4200	0.16	0.0259	–0.2200	0.83
Wednesday *	0.0366	0.2700	0.79	0.1254	0.8400	0.40	0.1462	1.0600	0.29	0.0169	–0.4300	0.66
Thursday *	–0.1479	–2.3000	0.02	0.0455	–0.5600	0.58	–0.0214	–1.0500	0.29	0.1064	1.5900	0.11
Friday *	0.1034	1.1900	0.24	0.1831	1.8500	0.07	0.1707	1.3600	0.17	0.0182	–0.4000	0.69
Oneway ANOVA		2.3680	0.05		2.0608	0.08		2.8703	0.02		0.6408	0.63
Bartlett's Test		1.8510	0.12		3.2290	0.01		79.6670	0.00		2.2530	0.06
Tukey's HSD Test	No 2 Groups Were Sig. Diff			No 2 Groups Were Sig. Diff			1–2			No 2 Groups Were Sig. Diff		
Kruskal–Wallis		12.7520	0.01		9.4739	0.05		14.5498	0.01		1.3692	0.85
5. Nikkei 225 Index												
Monday *	–	–	–	0.0346	–0.7200	0.47	–0.2360	–2.7200	0.01	–0.2326	–2.7500	0.01
Tuesday *	–	–	–	–0.1085	–4.0100	0.00	0.0244	–0.0200	0.99	0.0519	0.6700	0.50
Wednesday *	–	–	–	0.1773	2.3200	0.02	0.1314	1.3000	0.19	–0.0424	–0.4800	0.63
Thursday *	–	–	–	0.0620	–0.2900	0.78	0.0878	0.7600	0.45	0.2450	3.0200	0.00
Friday *	–	–	–	0.1073	0.7300	0.47	0.0134	–0.1500	0.88	–0.0423	–0.4700	0.64
Saturday	–	–	–	0.1865	2.0300	0.04	0.2262	1.0500	0.29			
Oneway ANOVA	–	–	–		4.4447	0.00		1.8262	0.10		3.5366	0.01
Bartlett's Test	–	–	–		4.6850	0.00		19.3790	0.00		3.1350	0.01
Tukey's HSD Test	–	–	–	2–3;2–5; 2–6			No 2 Groups Were Sig. Diff			1–4		
Kruskal–Wallis	–	–	–		28.9020	0.00		17.4032	0.00		13.8194	0.01

Footnote : * Independent samples t–test statistics for the respective day against the rest of the days in the week.

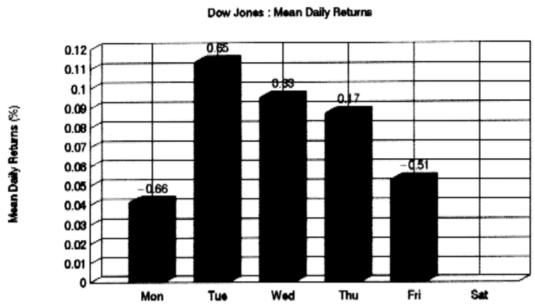
4.4.2 Monday Effect For Five-Year Sub-Period From 1982-86.

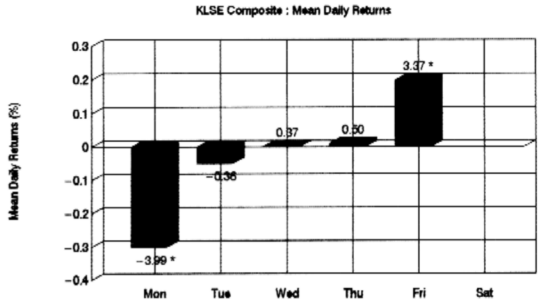
Graph 5 showed the daily return patterns for the local and international indices from 1982-1986. A pronounced Monday effect was seen to have emerged on all the KLSE indices. In addition, US, London and Hong Kong markets depicted a Monday effect. However, Tokyo and Australian markets exhibited the lowest return on Tuesday. Are all the above weekend effects statistically significant?

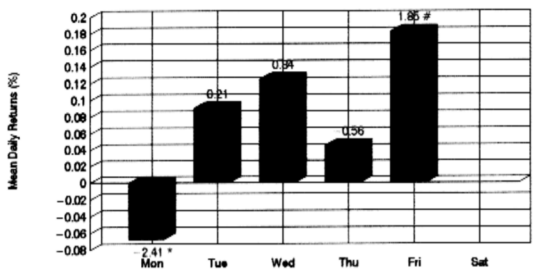
From Tables 4A and 4B , we can conclude that the various statistical tests provided evidence that Monday effects for all the six sectoral indices on the KLSE were statistically significant for the five-year sub-period from 1982-1986. There was strong Monday effect on the KLSE during 1982-1986.

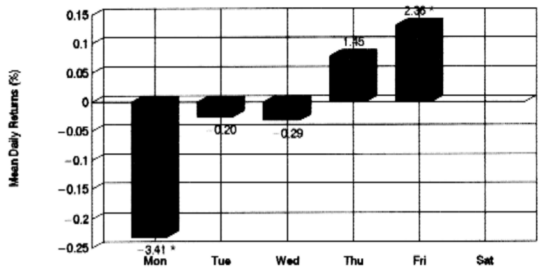
Similarly from Tables 5A and 5B, we can deduce from the batteries of statistical tests that Tuesday effect prevailed on the Tokyo market during 1982-1986. Similar Tuesday effect found on the Australian market was mild. The Monday effect noted for the Hong Kong and London markets were mild. There was no weekend effects on the US market.

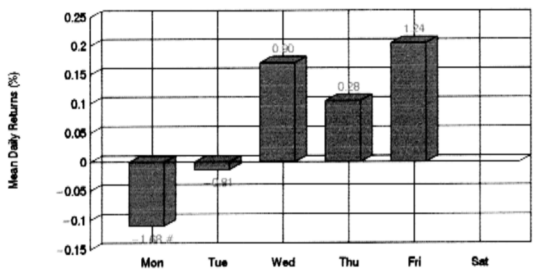
Graph 5 : Mean Daily Returns For Five Years Sub–Period From 1982–86

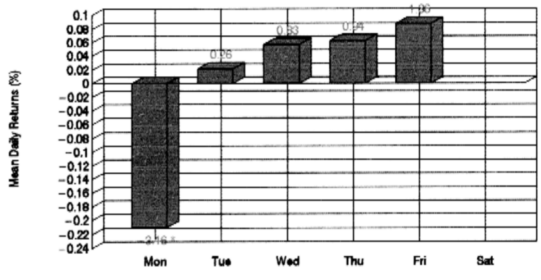


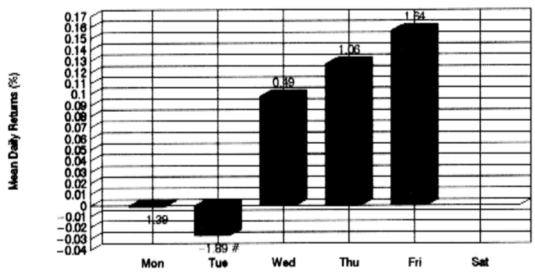


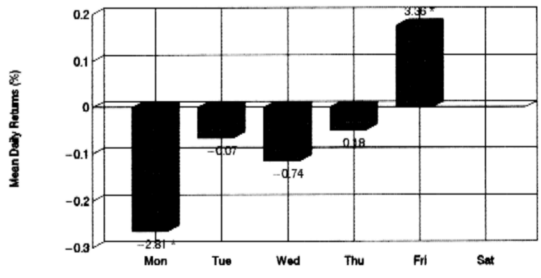


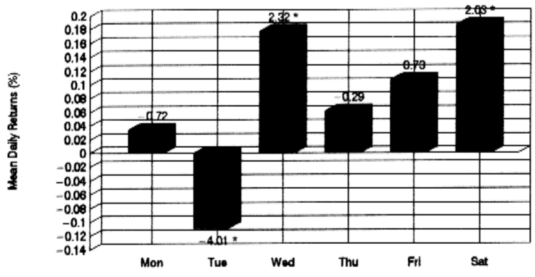


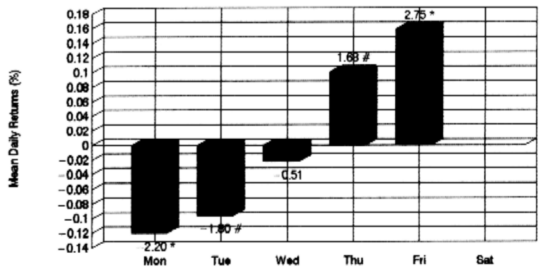


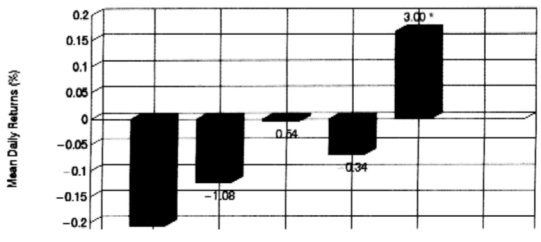












Remarks :–

Nikkei 225 (Period: 1983–1986)
All Others (Period: 1982–1986)
*** Statistically Significant At 0.05**
 # Statistically Significant At 0.10
Figures Above Bar = t–Statistics

4.4.3 Monday Effect For Five-Year Sub-Period From 1987-1991.

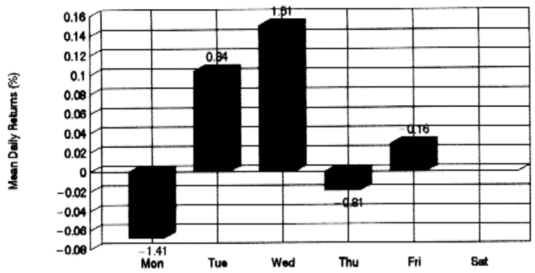
Graph 6 depicted the mean daily return distributions for the five-year sub-period 1987-1991 for both local and international bourses. Monday effect continued to prevail for all the KLSE indices studied. Monday effect was also noted for all the major international bourses except Australia which showed a Tuesday effect. Are all the above weekend effects statistically significant?

From Tables 4A and 4B, during 1987-1991, we can deduce from the various statistical tests that only the Tin/Mining index showed Monday effect. The Monday effect noted for the Composite, Industrial, Properties and Plantations indices were mild (supported only by t-tests but complicated by non-homogeneity in variances). There was no weekend effect noted for the Finance index.

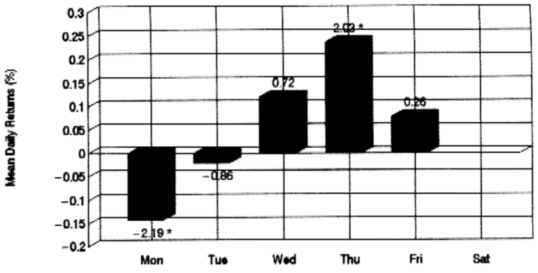
From Tables 5A and 5B, during 1987-1991, Monday effect was found on the Hong Kong and London markets. The Monday effect found on the Tokyo market was mild (supported by t-test but complicated by non-homogeneity of variances). Even though the lowest weekly return occurred on Monday for the US and Australian markets, there was no evidence of a statistically significant weekend effect on these bourses.

Graph 6 : Mean Daily Returns For Five Years Sub–Period From 1987–91

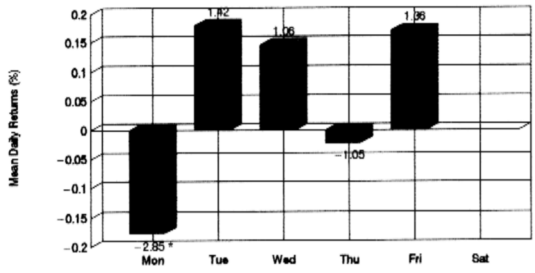
Dow Jones : Mean Daily Returns



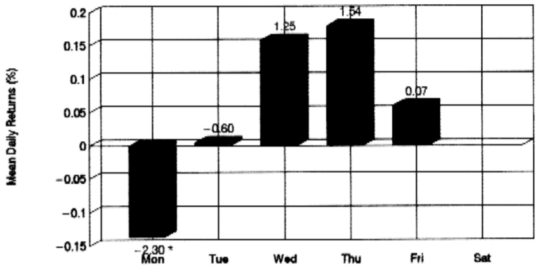
KLSE Composite : Mean Daily Returns



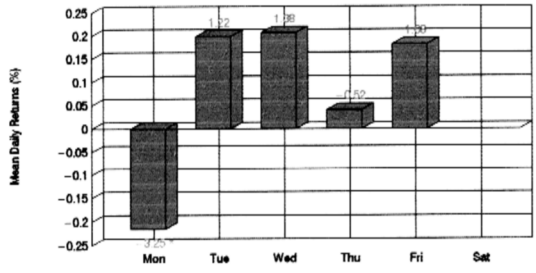
FTSE 100 Ind : Mean Daily Returns



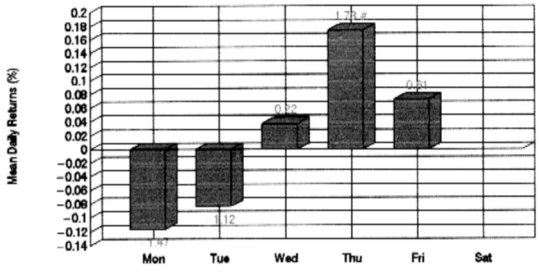
KLSE Industrial : Mean Daily Returns



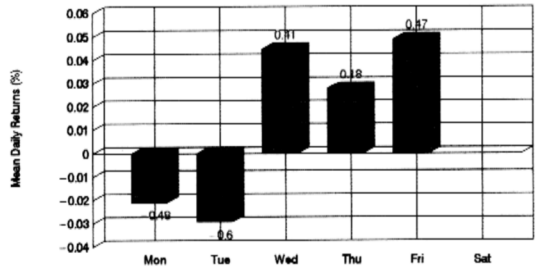
Hang Seng : Mean Daily Returns



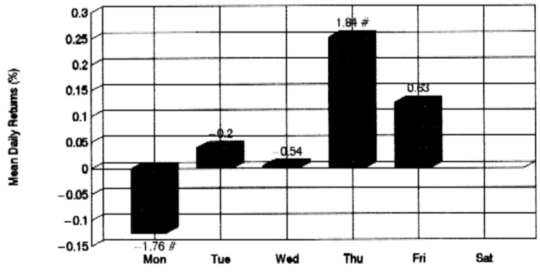
KLSE Finance : Mean Daily Returns



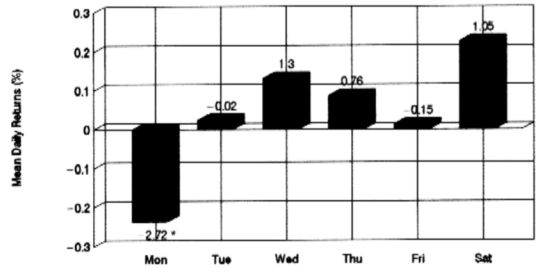
Aust All Ord : Mean Daily Returns



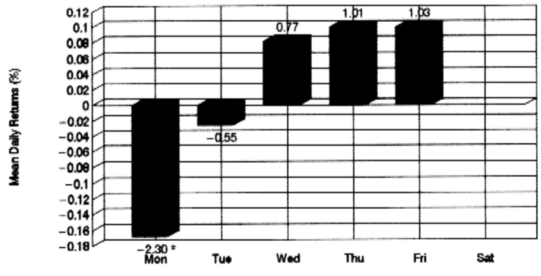
KLSE Properties : Mean Daily Returns



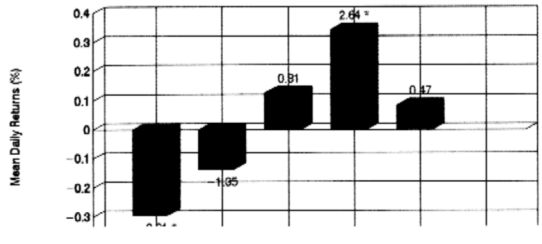
Nikkei 225 : Mean Daily Returns



KLSE Plantation : Mean Daily Returns



KLSE Tin/Mining : Mean Daily Returns



Remarks :–

*** Statistically Significant At 0.05**
 # Statistically Significant At 0.10
Figures Above Bar = t–Statistics

4.4.4 Monday Effect For Five-Year Sub-Peric ' F m 1992-1996.

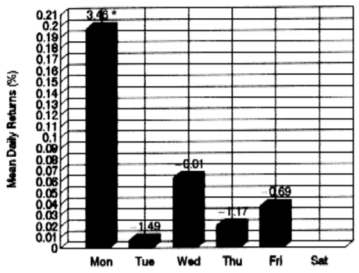
Graph 7 illustrated the mean daily return distributions for five-year sub-period from 1992-1996. All the six KLSE indices plus six other new sectoral KLSE indices i.e. EMAS, 2nd Board, Consumer Products, Industrial Products, Trading/Services, and Construction showed the lowest return occurred on Monday. Similarly, all overseas markets except US recorded lowest return on Monday. Are the above Monday effect noted during 1992-1996 statistically significant?

From Tables 4A and 4B, all the statistical tests confirmed that a statistically significant Monday effect prevailed for all the six KLSE indices i.e. Composite, Industrial, Finance, Properties, Plantations and Tin/Mining during 1992-1996. Similar results were obtained for all the other six new sectoral indices i.e. Second Board, EMAS, Consumer Products, Industrial Products, Trading/Services and Construction (See Table 5). This showed that during the five-year sub-period from 1992-1996, Monday effect seems to be firmly entrenched on the local bourse.

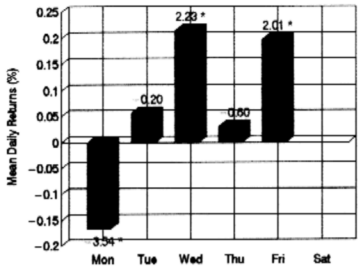
As seen in Tables 5A and 5B, during 1992-96, only Tokyo market showed a statistically significant Monday effect. All the other major international bourses seem to be liberated from this day-of-the-week anomalies.

Graph 7 : Mean Daily Returns For Five Years Sub–Period From 1992–96

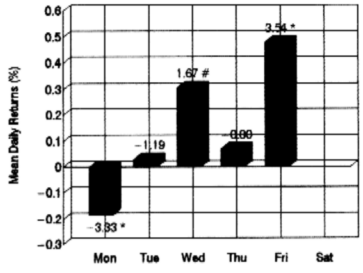
Dow Jones : Mean Daily Returns



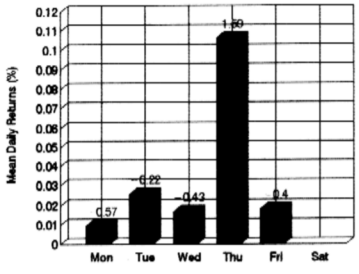
KLSE Composite : Mean Daily Returns



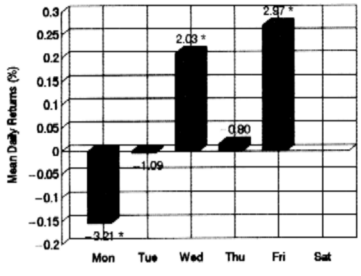
KLSE 2nd Board : Mean Daily Returns



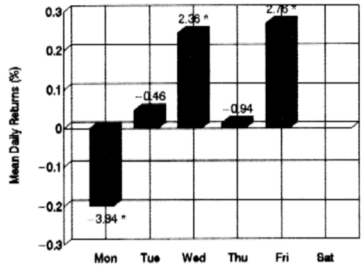
FTSE 100 Ind : Mean Daily Returns



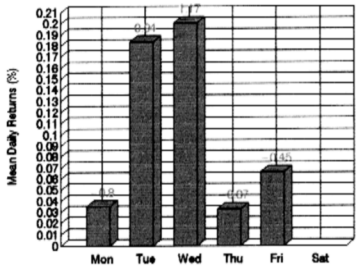
KLSE Industrial : Mean Daily Returns



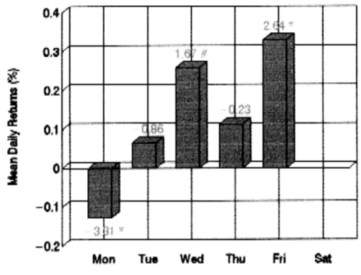
KLSE EMAS : Mean Daily Returns



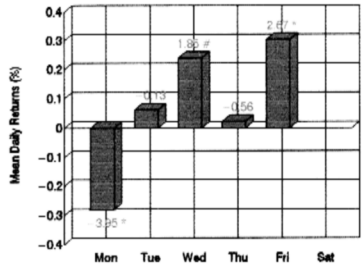
Hang Seng : Mean Daily Returns



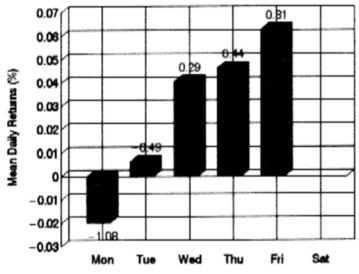
KLSE Finance : Mean Daily Returns



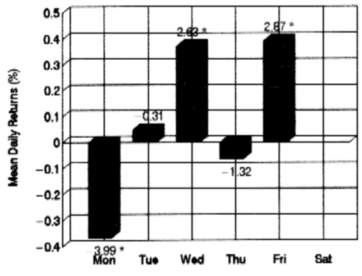
KLSE Consumer : Mean Daily Returns



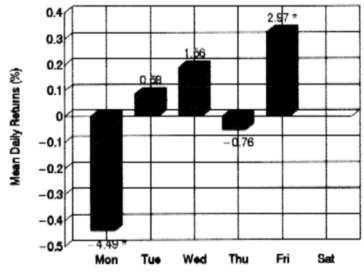
Aust All Ord : Mean Daily Returns



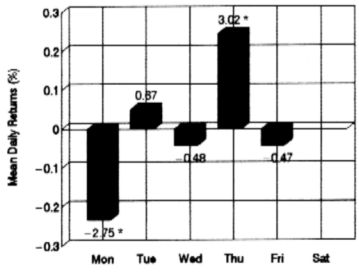
KLSE Properties : Mean Daily Returns



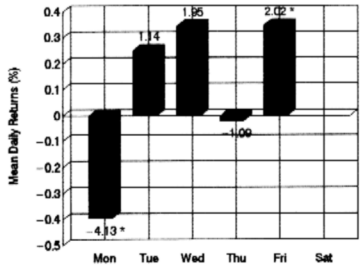
KLSE Ind Product : Mean Daily Returns



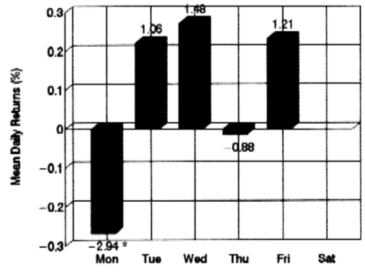
Nikkei 225 : Mean Daily Returns



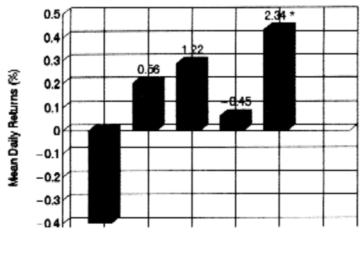
KLSE Plantation : Mean Daily Returns



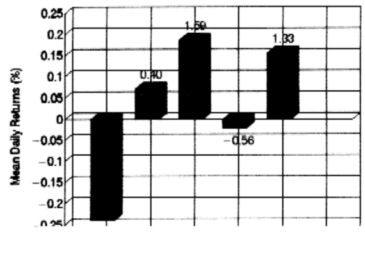
KLSE Construction: Mean Daily Returns



KLSE Tin/Mining : Mean Daily Returns



KLSE Trad/Services : Mean Daily Returns



Remarks :–

New KLSE Indices (Consumer, Ind. Product, Construction, Trading & Services) 1993–1996.

* Statistically Significant At 0.05

\# Statistically Significant At 0.10

Figures Above Bar = t–Statistics

Table 6 :Test Statistics For Five Years Sub−Periods (KLSE New Indices).

Day Of The Week Effects For :−	Period : 1992−96 Mean	Test Stat	Stat Prob.
1. KLSE Second Board Index			
Monday *	−0.1827	−3.3300	0.00
Tuesday *	0.0297	−1.1900	0.23
Wednesday *	0.3074	1.6700	0.09
Thursday *	0.0691	−0.8000	0.43
Friday *	0.4799	3.5400	0.00
Oneway ANOVA		5.7452	0.00
Bartlett's Test		2.2540	0.06
Tukey's HSD Test	1−3;1−5; 2−5		
Kruskal−Wallis		26.8669	0.00
2. KLSE EMAS Index			
Monday *	−0.1986	−3.8400	0.00
Tuesday *	0.0461	−0.4600	0.64
Wednesday *	0.2462	2.3600	0.02
Thursday *	0.0131	−0.9400	0.35
Friday *	0.2709	2.7600	0.01
Oneway ANOVA		5.8713	0.00
Bartlett's Test		0.8200	0.51
Tukey's HSD Test	1−3;1−5		
Kruskal−Wallis		27.6866	0.00
3. KLSE Consumer Index			
Monday *	−0.2818	−3.9500	0.00
Tuesday *	0.0620	−0.1300	0.90
Wednesday *	0.2399	1.8500	0.06
Thursday *	0.0236	−0.5600	0.58
Friday *	0.3038	2.6700	0.01
Oneway ANOVA		5.3429	0.00
Bartlett's Test		0.8040	0.52
Tukey's HSD Test	1−3;1−5		
Kruskal−Wallis		31.0829	0.00

Day Of The Week Effects For :−	Period : 1992−96 Mean	Test Stat	Stat Prob.
4. KLSE Industrial Products Index			
Monday *	−0.4416	−4.4900	0.00
Tuesday *	0.0875	0.5800	0.56
Wednesday *	0.1901	1.5600	0.12
Thursday *	−0.0517	−0.7600	0.45
Friday *	0.3242	2.9700	0.00
Oneway ANOVA		6.5400	0.00
Bartlett's Test		1.4400	0.22
Tukey's HSD Test	1−2;1−3; 1−5.		
Kruskal−Wallis		30.7449	0.00
5. KLSE Construction Index			
Monday *	−0.2675	−2.9400	0.00
Tuesday *	0.2215	1.0600	0.29
Wednesday *	0.2720	1.4800	0.14
Thursday *	−0.0142	−0.8800	0.38
Friday *	0.2331	1.2100	0.23
Oneway ANOVA		2.8553	0.03
Bartlett's Test		0.4840	0.75
Tukey's HSD Test	1−5.		
Kruskal−Wallis		11.9710	0.02
6. KLSE Trading & Services Index			
Monday *	−0.2396	−2.8100	0.01
Tuesday *	0.0712	0.4000	0.69
Wednesday *	0.1856	1.5900	0.11
Thursday *	−0.0213	−0.5600	0.57
Friday *	0.1553	1.3300	0.19
Oneway ANOVA		2.5508	0.04
Bartlett's Test		0.5140	0.73
Tukey's Test	1−3.		
Kruskal−Wallis		11.0837	0.03

Footnote : * Independent samples t−test statistics for the respective day against the rest of the days of the week

4.4.5 Summary For Five-Year Sub-Period Analyses.

On the domestic front, as seen in Table 7, weekend effect was noted to shift from Tuesday effect during 1977-1981 for all the six KLSE sectoral indices to Monday effect for the remaining three five-year sub-periods (i.e. 1982-1986, 1987-1991 and 1992-1996). On the international markets (See Table 7), Monday effect noted in US during 1977-1981 has disappeared from the US stock market thereafter. The Australian market's Tuesday effect noted during 1977-1981 became mild (supported only by t-test) in 1982-1986 sub-period and subsequently showed no weekend effect for the remaining two sub-periods. However, for both London and Hong Kong, no weekend effect was observed during 1977-1981 but a mild Monday effect emerged in 1982-1986 sub-period and became pronounced in 1987-1991 sub-period. Both markets showed no weekend effect during 1992-1996.

We can conclude that there is a general tendency for the weekend effect to shift from Tuesday to Monday before disappearing from the stock markets. This may be attributed to the fact that as a particular stock market's infrastructures develop and grow, the time lag in information discounting improves and market developments in leading major world financial markets i.e. New York and London are immediately reflected in emerging markets almost on the same day itself.

Table 7 : Summary Of The Day–Of–The–Week Effect For Five–Year Sub–Period Analysis.

Sub–Period	Five–Year Sub–Period			
	1977–1981	1982–1986	1987–1991	1992–1996
Dow Jones	Monday Effect	No Weekend Effect	No Wekend Effect	No Wekend Effect
FTSE 100 Industrial	No Weekend Effect	Mild Monday Effect	Monday Effect	No Wekend Effect
Aust. All Ordinaries	Tuesday Effect	Mild Tuesday Effect	No Wekend Effect	No Wekend Effect
Nikkei 225	Not Available	Tuesday Effect	Mild Monday Effect	Monday Effect
Hang Seng	No Weekend Effect	Mild Monday Effect	Monday Effect	No Wekend Effect
KLSE Composite	Tuesday Effect	Monday Effect	Mild Monday Effect	Monday Effect
KLSE Industrial	Tuesday Effect	Monday Effect	Mild Monday Effect	Monday Effect
KLSE Finance	Mild Tuesday Effect	Monday Effect	No Weekend Effect	Monday Effect
KLSE Properties	Tuesday Effect	Monday Effect	Mild Monday Effect	Monday Effect
KLSE Plantations	Mild Tuesday Effect	Monday Effect	Mild Monday Effect	Monday Effect
KLSE Tin/Mining	Mild Tuesday Effect	Monday Effect	Monday Effect	Monday Effect
KLSE 2nd Board	Not Available	Not Available	Not Available	Monday Effect
KLSE Emas	Not Available	Not Available	Not Available	Monday Effect
KLSE Consumer	Not Available	Not Available	Not Available	Monday Effect
KLSE Industrial Product	Not Available	Not Available	Not Available	Monday Effect
KLSE Construction	Not Available	Not Available	Not Available	Monday Effect
KLSE Trading/Services	Not Available	Not Available	Not Available	Monday Effect