

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This study makes use of the secondary data available with the Registry of Companies. The number of new private limited companies being set up and the number of existing private limited companies being dissolved vary every year. The number of entries and exits are converted to its respective entry and exit rates using the formula applied by Dunne, Roberts and Samuelson (1988). The difference between the entry and the exit rates equals the net growth of private limited companies.

The net growth rate is regressed against economic factors such as the interest rate, the GDP growth rate, the rate of inflation and the company income tax rate.

#### **3.2 Data Collection**

The measure of new business startups used in this research is the number of new companies registered during the particular year. Business closures refers to the number of companies dissolved/struck off during the particular year. According to the Registry of Companies (ROC), "company" refers to both private and public limited companies. However, in this research, "company" refers solely to private limited companies and caution has been taken to ensure that public limited companies are excluded from the calculations.

Data on newly registered/dissolved companies is easily available from the Monthly Statistical Bulletins published by the Department of Statistics whereas data on newly incorporated companies according to type can be gathered from the Annual Reports published by the Registry of Companies.

The rate of company entry (ER) and company exit (XR) are equal respectively to the ratios of the number of private limited companies started or discontinued during a period to the beginning-of-period number of companies<sup>11</sup>. This beginning-of-period companies include all private and public companies so that ER and XR reflect the true entry/exit ratios of private limited companies in relation to the total population of companies in the country at that point of time.

The difference between company entry and company exit rates equals the net growth rate of companies<sup>8</sup>.

Unincorporated enterprises such as the sole proprietorship and partnership are excluded from this research due to the fact that they are not under the supervision of the ROC and there is no requirement for them to lodge returns annually with the ROC thus causing the tracking of the status of their operations difficult and complex.

*The commercial base lending rate* (BLR) is the benchmark interest rate being used in this research. Companies need loans to help finance their operating activities. The BLR plus the individual bank commission forms the minimal cost of external financing (cost of capital). Companies normally strive to keep the cost of operation as low as possible and since interest rates are part of necessary costs in running a business, it is therefore believed that interest rates have some bearing on the entry and exit rates of companies.

*The GDP growth rate* is a useful indicator of the economic performance of a country. A growing economy provides many business opportunities. Adopting the view that entrepreneurs are aware of their personal capabilities and hope to profit from this ability (Casson, 1982), it could generally be assumed that the GDP growth rate has some relationship with how a company would perform, whether more entrepreneurs would consider entering or exiting a market.

*Inflation*<sup>12</sup> has a direct impact on the prices of factors of productions, the break-even point and real income. Since real income is a main motivation for one

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<sup>11</sup> This method of calculation is adopted from method used by Dunne, Roberts, and Samuelson (1988), *Patterns of firms entry and exit in U.S. manufacturing industries*, RAND Journal of Economics Vol.19, No.4, Winter 1988.

to set up a company, is believed that the inflation will be able to influence the entry and exit decisions of entrepreneurs.

The chargeable income of a company is subjected to company *tax*. The company tax rate is fixed at a certain rate depending on the year of assessment (refer Table 2). The effect of the tax is to reduce realized income (profit) for an investment. The higher the tax rate the lesser is the profit. Profit being the main motivation for any business venture, would ultimately be the criteria for any entrepreneur to consider the viability of a business venture. Due to this, the co-operative income tax is believed to be one of the critical factors in the net growth of small firms.

The data on the number of companies on register at the beginning-of-period, the number of companies registered during the period and number of companies dissolved/struck off during the period (gathered from the Monthly Statistical Bulletin for years 1990, 1993, 1995 and 1998) is presented in Table 1.

The entry rate, the exit rate and the net growth rate of companies are presented in tabled in Table 2. The respective annual rate of BLR, GDP growth, inflation and tax rates are also presented in Table 2.

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<sup>12</sup> as measured by the Consumer Price Index (CPI)

***Table 1: Number of new business startups and closures***

Year	Companies on register at beginning-of-period	Number of Companies Registered During the period	Number of Companies dissolved/ struck off during the period
1985	127,168	16,675	161
1986	143,682	9,349	248
1987	152,783	8,637	274
1988	161,146	9,891	883
1989	170,154	14,245	691
1990	183,708	18,604	481
1991	202,021	21,102	316
1992	222,807	23,270	376
1993	245,703	30,941	484
1994	276,160	43,502	861
1995	318,801	43,140	688
1996	371,286	43,143	681
1997	413,748	40,627	2,128
1998	452,247	18,773	5,039

Source: Monthly Statistical Bulletin, 1985-1998, published by Department of Statistics

Table 2: Net Growth of New Firms and Economic Factors In Percentage, 1985 - 1998

<b>Year</b>	<b>Entry (%)</b>	<b>Exit (%)</b>	<b>Net Growth (%)</b>	<b>Interest* (%)</b>	<b>GDP Growth* (%)</b>	<b>Inflation* (%)</b>	<b>Tax Rate# (%)</b>
1985	13.1	0.1	13.0	10.75	-1.0	2.5	40.0
1986	6.5	0.2	6.3	10.0	1.2	2.5	40.0
1987	5.7	0.2	5.5	7.5	5.2	2.6	40.0
1988	6.1	0.5	5.6	7.0	9.9	3.0	40.0
1989	8.4	0.4	8.0	7.0	9.1	2.8	35.0
1990	10.1	0.3	9.8	7.5	9.0	3.1	35.0
1991	10.4	0.2	10.2	9.0	9.5	4.4	35.0
1992	10.4	0.2	10.2	8.5	8.9	4.0	35.0
1993	12.6	0.2	12.4	8.2	9.9	3.6	34.0
1994	15.8	0.3	15.5	6.8	9.2	3.7	32.0
1995	13.5	0.2	13.3	8	9.8	3.4	30.0
1996	11.6	0.2	11.4	8.2	10.0	3.5	30.0
1997	9.8	0.5	9.3	8.2	7.5	2.7	30.0
1998	4.2	1.1	3.1	11.2	-7.5	5.3	28.0

Source:

\* could be obtained from the yearly Bank Negara Report, 1986-1998

# could be obtained from Budget Report, 1986-1998