CHAPTER I

INTRODUCTION

1.1 Introduction

There has been a good deal of discussions in recent times on the urgent need for finding a solution to the problem of failure of entrepreneurial ventures. Failure of entrepreneurial ventures is a drain on the economy of the nation. This is especially so in a developing nation since the scarce resources that are diverted towards entrepreneurial ventures get wasted when the projects fail. It also brings down the morale of the entrepreneurial talent available in the country. An economy is the effect for which entrepreneurship is the cause. Entrepreneurship serves as a catalyst for the economic development of a country. Just as the growth of entrepreneurship helps to improve the economy of a country, the failure of entrepreneurial ventures retards the economic progress of a country. Failure of entrepreneurial ventures acts as a deterrent factor against the growth of entrepreneurship, which will further hamper the growth of the economy. Entrepreneurial ventures can take three forms, viz., manufacturing units, service units and business enterprises. Out of these three, entrepreneurial units engaged in manufacturing activity are the prime movers of the economy, followed by service units and supported by business enterprises. Thus, a study on the failure of entrepreneurial units engaged in manufacturing and service activities with an objective to trace the factors that contribute to the failure is of great importance. The study has great relevance for any country, especially for a developing country like India with a huge human resource and untapped economic resources. The economic growth of a developing country like India lies in nurturing entrepreneurship and spreading entrepreneurial culture throughout the country.

The pace and progress of an economic system largely depends on the emergence of dynamic, innovative and successful entrepreneurs. The key words are ‘successful entrepreneurs’. Planning commission report of the second five-year plan stresses the need for the emergence of successful entrepreneurs, especially, in small-scale industrial sector. The report quotes that the small-scale industry provides immediate large-scale self-employment and it offers a method of ensuring equitable distribution of the national income. The report further adds that small scale industry promoted by entrepreneurs
facilitate an effective mobilisation of resources of capital and skill which might otherwise would have remained unutilized and that some of the problems that unplanned urbanization tends to create will be avoided by the establishment of small centers of industrial production all over the country. The Karvey committee\(^1\) suggests that the principle of self-employment is at least as important to a successful democracy as that of self-government. But all these benefits of entrepreneurship will be available only if the entrepreneurial ventures started by promising entrepreneurs turn out to be successful in achieving their objective. Failure of entrepreneurial ventures takes away all the benefits of entrepreneurship, apart from breeding fear in the minds of the would-be entrepreneurs, which will dampen the phase of economic development.

In India, the Small-Scale industrial (SSI) sector has acquired a prominent place in the socio-economic development of the country during the past 50 years. According to the study report of the All Indian management Association (AIMA)\(^2\), the SSI sector constitutes 95% of the industrial units and contributes 40% to the total industrial output of the country and 35% to direct export. The AIMA study report further quotes that there are about 3.6 million SSI units in India and these employ approximately 19.3 million people, which is second highest next only to agriculture. Hence, the performance of smaller sized entrepreneurial units has a direct bearing on the economic progress of India.

1.2 Tamilnadu Industrial Investment Corporation Limited (TIIC) - An Overview

The Tamilnadu Industrial Investment Corporation Limited (TIIC) is a pioneer state level financial institution established in the year 1949. It was incorporated as a company in the year 1949 under the Company’s Act, 1916. The Government of Tamilnadu is the major shareholder in TIIC. Commercial banks and other financial institutions form the rest of the shareholders. Refinance facilities offered by the Small Industries Development Bank of India (SIDBI), SLR bonds and fixed deposits (with Government Guarantee) are the major sources of finance for TIIC. TIIC extends financial assistance in the form of term loans for the setting up of new industrial units and also for the expansion/modernization of existing industrial units. TIIC also extends Term loan assistance to service sector. **TIIC extends financial assistance to industrial units in Tiny, SSI and MSI sectors.** (Industrial units with investment in plant & machinery up to
Rs. 25.00 lakhs are classified as Tiny Sector units, those with investment limit in plant & machinery above Rs. 25.00 lakhs and up to Rs. 500 lakhs are classified as SSI units and those with investment in plant & machinery exceeding Rs. 500 lakhs and up to Rs. 1000 lakhs are classified as MSI units.). The term loans extended by TIIC are meant to be utilized mainly for the creation/acquisition of industrial assets like building, plant & machinery, equipments, electricals etc., TIIC does not extend financial assistance for trading / business activities. The assets for which TIIC extends financial assistance are capital assets that are used in the production of goods and services. As the investment required for the creation/acquisition of productive industrial assets form a major proportion of the total investment required for any industrial venture and as the Term loan availed for the creation of such assets is to be repaid out of cash that the industrial unit will generate from its operations, the time period required for the repayment of Term loans will be fairly longer. Taking this aspect into to account, the repayment period of Term loans is kept longer, in the order of about 7 to 10 years, in tune with the repaying capacity of the unit. The geographical jurisdiction of TIIC for the purpose of extending financial assistance extends throughout the state of Tamilnadu.

In addition to financing for the setting up of industrial units, which is the prime function of TIIC, it also has an investment portfolio through which TIIC has invested in the equity shares of renowned public limited companies.

TIIC is one of the State financial Corporations (SFC) in India. SFCs were set up in India under State Financial Corporations Act, 1951. There are eighteen SFCs set up in India, including TIIC. The SFCs in India, other than TIIC are as under:

1. Andhra Pradesh State Financial Corporation (APSFC)
2. Delhi Financial Corporation (DFC)
3. Gujarat State Financial Corporation (GSFC)
4. Haryana Financial Corporation (HFC)
5. Himachal Pradesh Financial Corporation (HPFC)
7. Karnataka State Financial Corporation (KSFC)
8. Kerala Financial Corporation (KFC)
9. Madhya Pradesh Financial Corporation (MPFC)
10. Maharashtra State Financial Corporation (MSFC)
11. North Eastern Development Finance Corporation (NEDFI)
12. Orissa state Financial Corporation (OSFC)
13. Punjab Financial Corporation (PFC)
14. Rajasthan Finance Corporation (RFC)
15. The Economic Development Corporation of Goa (EDC)
16. Uttar Pradesh Financial Corporation (UPFC)
17. West Bengal Financial Corporation (WBFC)

TIIC is the pioneer institution that was set up in 1949, even before the enactment of the State Financial Corporations Act in 1951. Later on, the provisions of the State Financial Corporations Act, 1951 were made applicable to TIIC by a separate order by the Government by the Government of India and accordingly TIIC also functions as a SFC. Being a Government sponsored company with the objective of fostering industrial development of the state of Tamilnadu, TIIC remains the first choice of new and budding entrepreneurs in the state of Tamilnadu for availing financial assistance for setting up their industrial ventures. About 85% of the clients who approach TIIC for financial assistance are first generation entrepreneurs. Since the commercial banks in the country prefer to lend only to known, established entrepreneurs with a proven track record, TIIC remains the prime financial institution in the state of Tamilnadu to first generation entrepreneurs to give shape to their entrepreneurial dreams. Since majority of the new entrepreneurs start their journey with the financial assistance of TIIC, it will be apt to study the failure / success of entrepreneurial units started by the clients of TIIC which will provide the right answers to the problems faced by entrepreneurs.

1.3 Scope of the study

The scope of the study is restricted to projects financed by TIIC within the state of Tamilnadu. Since TIIC is the major Term-lending institution in the state of Tamilnadu,
the projects that are started with the financial assistance of TIIC are spread throughout the state of Tamilnadu and the portfolio covers all major sectors of industries. Though the study has been made on the basis of responses obtained from industrial units that have availed financial assistance from TIIC, the results of the study can be made applicable for all tiny and small scale industries located/to be located in the state of Tamilnadu.

1.4 Need for the study

Many studies have been done on the qualities required of entrepreneurs to become successful in their pursuit. Factors that are responsible for making an entrepreneurial venture a success have also been studied at length by different researchers. But, studies on the factors that cause entrepreneurial failures are only far and few. Journal of Management & Organization\(^4\) of the Australian and New Zealand Academy of Management observes as under:

> Research on entrepreneurship focuses predominantly on success which ignores the high failure rate of new ventures and precludes a holistic view of entrepreneurial process.

Though failure is a key part of entrepreneurship, very few people talk about failure. All entrepreneurs do not succeed in their attempt. Some may succeed in their maiden venture and some may be able to succeed only after facing a few pitfalls, thereby learning good lessons. **Entrepreneurs learn more from their failures than from their successes. Every failure will teach the entrepreneur a lesson that he can gainfully make use of when he comes across a similar situation in the future.** Thus, learning about failures, its causes and the likely cures will go a long way in making one a seasoned entrepreneur.

Chip Griffin\(^5\), an entrepreneur, communicator and technologist puts forth the following:

> Don’t fear failure. Learn from it. Whether your own mistakes or those of others, there’s lots to learn; treat it as an education rather than a disaster and you will be that much stronger for it.
Thus, studying the factors/causes behind failure of entrepreneurial pursuits is as important, if not more, as studying the factors/causes responsible for the success of entrepreneurial pursuits. It opens our vision to the hidden pitfalls that are behind failure. A good lesson learnt will go a long way in ensuring success. Hence there is an urgent need to study entrepreneurial failures.

The failure of an entrepreneurial venture is an event that brings a lot of problems to entrepreneurs and to the banks/financial institutions that have extended financial assistance to such entrepreneurial ventures. Moreover, industrial failures affect the society at large since it increases unemployment, makes wasteful use of scarce resources resulting in reduced availability of goods and services and increase in the cost of available goods and resources. The shareholders and creditors lose their savings and future business. The sixth plan of the Government of India had commented on industrial sickness as follows:

The phenomenon of industrial sickness not only tends to aggravate the problem of unemployment, but also renders in fructuous capital investment and generally creates an adverse climate for further industrial growth.

In a developing country like India, where financial support by banks and financial institutions to the development of industries (especially to Tiny and Small industries) is crucial to the overall economic development of the country, failure of entrepreneurial ventures affects the financial stability of the banks and financial institutions. The increased failure rates lead to increase in non-performing assets of the loan portfolio of banks and financial institutions and this acts as a hurdle, both for the sustenance and growth of the banks and financial institutions and their extending continued financial support to the needy entrepreneurs.

Failure of entrepreneurial ventures has the following harmful consequences:

a) Once an entrepreneurial unit fails, the capital invested in the project becomes unproductive which is a loss to the economy of the country.

b) Failure of projects induces a sense of apprehension among entrepreneurs and brings down their level of motivation; this spoils the growth of entrepreneurship.
c) Executive Report – 2007 of the Global Entrepreneurship Monitor (GEM), which is the largest single body carrying out research studies in entrepreneurial activity in the world, which is an academic research consortium sponsored by London Business School, London, UK and Babson College, Babson Park, USA came out with the finding that India ranks second among the Middle and Low income countries in Europe and Asia, in fear of failure. The study revealed that 47% of the respondents in India showed symptoms of ‘fear of failure’. Thailand stands highest in the order with 56% of the respondents showing symptoms of ‘fear of failure’. A higher proportion of the respondents revealing fear symptoms is not good for the health of the economy as it will spread pessimistic attitude among the people of the country which in turn will act as a deterrent for the evolution and growth of entrepreneurs in the society.

d) In a developing country like India, most of the projects that come under the category of Small and Medium Enterprises (SMEs) are financed by banks and financial institutions. Hence, failure of entrepreneurial ventures affects the financial viability of banks and financial institutions and act even as a threat to their very survival.

e) Failure of projects financed by banks and financial institutions leads to wastage of public money, which, if deployed in other developmental activities could have contributed to the development of the economy.

f) Failure of projects means wastage of human resource which is one of the scarce resources.

Thus, identifying the key factors that are responsible for the failure of entrepreneurial units will help overcome the hurdles in the path of entrepreneurial development and if suitable remedial measures are taken, it will go a long way in strengthening the economic foundations of the country. Further, knowing the causes for entrepreneurial failures will help entrepreneurs to plan their ventures suitably to avoid pitfalls, to tackle hurdles that they may come across and not to commit the mistakes committed by those entrepreneurs whose ventures have met with failures.
Entrepreneurship holds the key for poverty alleviation in a country like India. It also has the capacity to bring about equitable distribution of wealth. C.K.Prahalad, the management expert, spoke at the Great Lakes Institute of Management (GLIM), Chennai, as under:

*Entrepreneurship, more than subsidies or philanthropy, holds the key to poverty alleviation in India. India, with its rich vein of research opportunities, should lead the world in thinking about entrepreneurship and wealth creation opportunity. No other country has as varied and granular understanding of entrepreneurship as India, which was home to a medley of founder-inspired, family-owned, PSU-driven and NGO-led entrepreneurship initiatives.*

The third All India Census of Small Scale Industries (2001-02), conducted by the Development Commissioner, Micro, Small and Medium Enterprises had come out with its finding that in Tamilnadu 1,79,385 units (58.39%) were found to be working and 1,29,832 units (41.60%) were found closed. If the findings of the census are any indicator, the small-scale sector needs an emergency attention. This has become all the more important in the wake of globalisation that sweeps through the world, including India. Tiny and small industries are more exposed to the threat of globalisation than medium/large sized industrial units. Tiny and small industrial units being great employment providers, if the trend in the failure of tiny and small-scale units is not arrested, we are likely to have a large unemployed work force emerging out of small-scale sector and remaining jobless to add more burden to the already rising level of unemployment in the country.

Hence, a study to find out the imminent factors that are responsible for failure of entrepreneurial ventures has a great purpose to serve. It will help the banks and financial institutions to take care of the possible pitfalls during the stages of their project appraisal, implementation and monitoring. It will also assist the entrepreneurs to be cautious and careful enough for taking preventive steps to avoid failure.

The present study deals with failure of entrepreneurial units started with the financial assistance of TIIC. Hence, the study addresses specific issues that are behind the failure of industrial units financed by TIIC. Failure of units financed by TIIC has a direct
bearing on the loan recovery performance of TIIC. Hence, identifying and overcoming the causes that are responsible for failure is bound to aid in improvement of loan recovery performance of TIIC.

In addition, the study also aims to identify the relationship between entrepreneurial traits of the project promoters and the success/failure of their entrepreneurial ventures, the expectations of borrowers from TIIC and the opinions of borrowers on the policies, financial norms and operational procedures of TIIC. Study of these aspects will help TIIC and its customers to have a better understanding of each others’ requirements and expectations and this will help reduce industrial failures, thereby improving the welfare of the entrepreneurial community and also improving the loan recovery performance of TIIC.

1.5 Period of study

The population considered for the study consists of live loan accounts of fully implemented projects in the books of TIIC as on 31st March 2007. The population contains two categories of units, viz., failed units and successful units. Among the failed units, the earliest loan sanction date is 31st March 1988 and the latest loan sanction date is 31st March 2004. Among the successful units, the earliest loan was sanctioned on 31st March 1999 and the latest loan was sanctioned on 30th September 2006. Thus, the study covers units that have been sanctioned financial assistance by TIIC during the period from 31st March 1988 to 30th September 2006, covering a period of 18 years.

The survey was undertaken during the period from June, 2004 to April, 2008.

1.6 Statement of the problem

Entrepreneurial failure among Tiny, Small and Medium scale industrial units is a malignant problem for the economy of the country. Though the Government and institutions sponsored by the Government for supporting the industrial growth of the country are actively involved in the promotion of Tiny, Small and Medium scale industrial units, the prevalence of appreciably higher level of entrepreneurial failures poses a threat to their very objective.

The successful growth of any economy depends on the number of promising entrepreneurs who evolve from the society. The society should provide an atmosphere that
is conducive for the growth of entrepreneurship. **Entrepreneurial failure breeds a sense of insecurity and hesitation in the minds of the prospective entrepreneurs and this hampers the growth of the economy.** Thus, a study to identify the causes behind entrepreneurial failures assumes prime importance, as this will make prospective entrepreneurs aware of the possible pitfalls that they might come across in their entrepreneurial pursuits so that they would be in a position to safeguard against such factors.

TIIC is the only State level Government sponsored institution in the state of Tamilnadu that extends financial assistance in the form of Term loans to the industrial units set up within the state of Tamilnadu. This study is restricted to the entrepreneurial ventures that had availed financial assistance from TIIC. Hence, the study will help TIIC understand better the factors behind entrepreneurial failures which in turn will help avoid / overcome project failures in future which will improve the loan recovery performance of TIIC.

As on 31\(^{st}\) March 2007, there were 21667 borrower accounts in the loan portfolio of TIIC, out of which 9779 borrower accounts fall in the category of ‘failed units’. Units that have failed and gone out of production and units that have become unviable and lost their repaying capacity have been classified as ‘failed units’. The percentage of failed units stands at 45.13\%, which is comparatively on the higher side. Hence, the study to identify the causes that are responsible for industrial failure with special reference to TIIC financed projects assume greater importance. TIIC finances for manufacturing industries and for service industries. Financing for trading activities is outside the purview if TIIC’s policies. Hence, the study is concerned only with manufacturing and service industries financed by TIIC. Though an overall study of the manufacturing industries will help to find out the likely causes for failure, study of specific industries will expose the industry-specific reasons. Out of the loan portfolio of TIIC, the following five industrial sectors account for 78.90\% of the loan outstanding as on 31\(^{st}\) March 2007.

- Textiles
- Engineering
- Food Processing
• Paper & paper products
• Chemical & Chemical products

Hence, apart from studying the causes responsible for the failure of industrial units from an overall perspective, the industry-specific causes that influence failure significantly in respect of the above five categories of industries also need to be studied for a better understanding of the problem.

Entrepreneurs evolve from a society when the environment is conducive. Social institutions have a role to play in this regard. TIIC being a development financing institution, has a social obligation to offer conducive climate for extending need based assistance to prospective entrepreneurs. In this regard, the interaction between TIIC and its customers has to be healthy and mutually supportive. Hence, the expectations of customers from TIIC and their opinions on TIIC’s policies, financial norms and operational procedures are also required to be analysed and this study addresses this aspect also.

1.7 Objectives of the study

Primary objective

The main objective of the study is to analyse the factors responsible for the failure of Tamilnadu Industrial Investment Corporation Limited (TIIC) financed projects and to identify the main causes responsible for the failure of projects and its impact on loan recovery performance of TIIC.

In tune with the above primary objective, the following secondary objectives were framed:

Secondary objectives

a) To study the success and failure rate of entrepreneurs under TIIC financed projects.

b) To study the influence of entrepreneurial traits of the entrepreneurs on the performance of projects.
c) To study the opinions of borrowers on the policies, financial norms and operational procedures followed by TIIC.

d) To fine tune the policies, financial norms and operational procedures of TIIC in line with the opinions/expectations of borrowers.

e) To offer suggestions to prevent project failures and to improve the loan recovery performance of TIIC.

1.8 Primary Data

Primary data consist of the responses obtained from the respondents of both failed as well as successful entrepreneurial units financed by TIIC and situated throughout the state of Tamilnadu. Primary data have been collected through a carefully designed schedule of questionnaire. The respondents were contacted in person and their responses to the questions were obtained and marked in the schedule. Thus, the primary data collection has been through direct personal interview of the respondents. The primary data collected includes responses to questions obtained from the respondents (who include entrepreneurs belonging to both failed as well as successful entrepreneurial units) on the causes responsible for the failure of industrial units. The same questions were posed to both the failed and successful entrepreneurs and their responses were obtained. In response to the questions contained in the ‘schedule’, the failed entrepreneurs were asked to point out the reasons for the failure of their respective ventures. The successful entrepreneurs were also posed the same questions and in response to the questions, they were asked to point out the reasons, which in their opinion and out of their experience in the industry would make a venture fail. In other words, the successful entrepreneurs have also answered as to what all could be the reasons due to which an industrial venture would turn out to be a failure. Responses from the entrepreneurs of both failed and successful units were obtained to verify the validity of the inferences obtained from the study.

Apart from this, the primary data collected also includes views of the entrepreneurs on the role of TIIC and its policies, financial norms and operational procedures which would throw light on the possible scope for improvement in the functioning of TIIC. Further, primary data were also collected on the entrepreneurial traits of the respondents, from the Loan Administrative Officer (LAO) of TIIC, who are
responsible for monitoring the implementation of the project and loan recovery from the unit. The LAO is an officer who is in constant interaction with the entrepreneurs since beginning, i.e., since the time the entrepreneurs conceive their business idea and approach TIIC for financial assistance. The LAO monitors the implementation of the project, looks after release of loan in stages towards implementation of the project, watches the operational performance of the units, collects loan dues from the entrepreneurs in time and extends need-based escort services to the entrepreneur. Thus, the LAOs, in view of their continued association with the entrepreneurs, are in a better position to judge their entrepreneurial traits. Though it can only be a subjective assessment, still the LAOs are better placed and are competent enough to assess the entrepreneurial traits of the entrepreneurs.

These data were collected as it is of vital importance to judge the relationship between entrepreneurial traits and the success/failure of entrepreneurial ventures. Specimen Interview Schedule used for primary data collection is given in Annexure. The interview schedule was pre tested through pilot study and the required modifications were incorporated by suitably wording the questions in such a way that they convey the same meaning to all the respondents in order to ensure accurate and consistent data collection.

1.8.1 Scale

In the Interview-Schedule, the respondents were asked to identify whether the variables listed out in the schedule are responsible for the failure of their industrial ventures. Two columns were given against each variable with the divisions ‘Agree’ and ‘Do not Agree’ and the respondents were asked to spell out any one of these two options that are relevant to their case. As the responses from the respondents fall only into two specific divisions dichotomous scaling was used giving a score of ‘2’ for the response falling under the division ‘Agree’ and a score of ‘1’ was used for the response falling under the division ‘Do-not agree’.

1.9 Secondary Data

Secondary data taken for the study consist of data available with TIIC in the form of computerized database of the customers indicating the details of loans availed, the type of industry, the type of the industrial sector in terms of investment made, loan repayment status, asset category, asset classification, defaults committed by the borrowers in
repayment of the loan dues etc., Further, the following records of TIIC have been used for gathering the secondary data.

- Asset wise categorization report of the Loan Portfolio as on 31st March 2007.
- Borrower categorization report as on 31st March 2007.

Further, in order to compare the loan recovery performance of TIIC with that of commercial banks in the country, the data published by the Reserve Bank of India on the classification of loan portfolio of commercial banks has been relied upon.

1.10 Method of Primary data collection

- The primary data were collected through personal interview of the respondents, viz., both failed and successful entrepreneurs who have started their units with the financial assistance of TIIC. Questions were posed to the respondents and their responses were obtained in person.

- The same interview schedule was used to obtain data from the entrepreneurs of both failed and successful units. While administering the interview schedule to the respondents of failed entrepreneurial units, they were asked to indicate the causes that have contributed to the failure of their respective units from among the causes listed out in the interview schedule. While administering the same interview schedule to the respondents of successful entrepreneurial units, they were asked to identify as to what according to their opinion, are the causes that would make an entrepreneurial unit fail from among the causes listed out in the interview schedule.

After identification of the variables that influence failure significantly, the respondents of failed enterprises were once again contacted and were asked to rank the identified variables in the order of importance.

1.11 Reliability Test for the instrument used

The Interview schedule that was used to collect responses from the respondents which is the instrument used to gather primary data has been checked for its reliability. To assess the reliability of the instrument, the Reliability Coefficient (R) was computed.
by Split-Half method separately for the two samples taken from failed and successful manufacturing units. Also Cronbach-Alpha Coefficient, which is a measure to test the internal consistency of data was also estimated.

1.11.1 Split-Half Test

a) Sample of failed manufacturing units
Sample size of failed manufacturing units : 502

The sample of 502 was split into two halves of 251 samples each with alternate samples falling in the two groups.

Reliability Coefficient (R) = \( \frac{2 \gamma_{12}}{1 + \gamma_{12}} \)

where,
\( \gamma_{12} \) = Correlation Coefficient between First and second Half

The scores of the individual respondents falling under the two halves were segregated and the correlation coefficient between the scores of the First and the second halves was arrived at.

For the primary data, the values arrived at are as under:

\( \gamma_{12} = 0.72 \)

Coefficient of Correlation (R) = \( \frac{2 \times 0.72}{1 + 0.72} \)

= 0.8372

Since ‘R’ is close to ‘Unity’, the reliability of the instrument is ensured.

b) Sample of successful manufacturing units

Sample size of successful manufacturing units : 572

The sample of 572 was split into two halves of 286 samples each with alternate samples falling in the two groups.

Reliability Coefficient (R) = \( \frac{2 \gamma_{12}}{1 + \gamma_{12}} \)
where,

\[ \gamma_{12} = \text{Correlation Coefficient between First and second Half} \]

The scores of the individual respondents falling under the two halves were segregated and the correlation coefficient between the scores of the First and the second halves was arrived at.

For the primary data, the values arrived at are as under:

\[ \gamma_{12} = \frac{0.79}{2 \times 0.79} \]

Coefficient of Correlation (R) = \[ \frac{1 + 0.79}{1 + 0.79} \]

\[ = 0.8827 \]

Since ‘R’ is closed to ‘Unity’, the reliability of the instrument is ensured.

c) **Cronbach-Alpha Coefficient**

The Alpha Coefficient developed by Lee J. Cronbach can be viewed as an average of all possible Split-Half reliabilities that can be computed from the given measure.

\[ \text{Alpha co-efficient} = \frac{\text{No. of items in the test}}{(\text{No. of items in the test} - 1)} \times \left[ 1 - \frac{\sum \text{individual item variances}}{\text{Total variance}} \right] \]

Cronbach's Alpha is equivalent to the average of all possible split half correlations. For the primary data, the Alpha Coefficient arrived at using SPSS-Version 11 is as under:

For the sample of 502 responses obtained from failed manufacturing units : 0.8921

For the sample of 572 responses obtained from successful manufacturing units: 0.9127

Since the Alpha Coefficients arrived at are closer to ‘Unity’ it proves that the instrument is reliable.

1.12 Research Methodology

1.12.1 Nature of the study

The research design is of descriptive type, since the study attempts to discover answer to the following research questions.
a) What are the causes that are responsible for the failure of entrepreneurial units?

b) What is the influence of entrepreneurial traits on the performance of entrepreneurial units?

c) What are the opinions of the borrowers of TIIC on TIIC’s policies, financial norms and operational procedures?

1.12.2 Population for the study

The population consists of all the industrial units situated throughout the state of Tamilnadu that have availed financial assistance from TIIC and whose loan accounts with TIIC are alive. The size of the population is 21667.

The population consists of the following two major strata:

a) Failed entrepreneurial units

b) Successful entrepreneurial units

Under each of the above two strata, the sub-strata consists of units in manufacturing sector and units in service sector

1.12.3 Sampling frame

The entire population of entrepreneurial units situated throughout the state of Tamilnadu and financed by TIIC has been considered for drawing the sample. Hence, the Sampling Frame consists of all the industrial units and service enterprises that have been financed by TIIC and whose loan accounts are still alive with TIIC.
Stratified random sampling technique has been adopted on the basis of the about two stages of strata. Within each stratum, **simple random sampling** has been adopted and samples were selected, giving equal chance to each and every unit of the population.

Every borrower who has a loan account with TIIC has been assigned an unique borrower number. However, since the total population has been divided into two levels of strata for the purpose of analysis, different sets of borrower numbers were assigned for the population of failed and successful manufacturing units in the manufacturing sector as well as in the service sector. Using these unique borrower numbers assigned, samples were chosen with the help of random Number Table.

To start with 550 samples from failed entrepreneurial units and 660 samples from successful entrepreneurial units were chosen. From out of the samples chosen, ignoring the samples wherein the respondents could not be contacted and the respondents who were hesitant to provide the required information due to their pre occupation etc., the effective sample size got reduced to 1115.

The breakup details of the population and the samples taken in each stratum is given under in Table 1.1

**Table 1.1. Breakup details of Population and Samples of failed and successful units**

<table>
<thead>
<tr>
<th>Population</th>
<th>No. of failed units</th>
<th>No. of successful units</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9779</td>
<td>11888</td>
<td>21667</td>
</tr>
<tr>
<td>Manufacturing sector</td>
<td>9605</td>
<td>11411</td>
<td>21667</td>
</tr>
<tr>
<td>Service sector</td>
<td>174</td>
<td>477</td>
<td>21667</td>
</tr>
<tr>
<td>Sample size</td>
<td>502</td>
<td>572</td>
<td>1115</td>
</tr>
<tr>
<td>% of sample size to population</td>
<td>5.23 %</td>
<td>6.89 %</td>
<td>5.01 %</td>
</tr>
</tbody>
</table>

The breakup details of population into failed and successful entrepreneurial units are depicted in Chart 1.1.
c) Verification of sample size chosen

**I. Failed units in Manufacturing sector**

In case of finite population, the acceptable sample size is given by the following relationship:

\[
    n = \frac{Z^2 \cdot p \cdot q \cdot N}{e^2 \cdot (N - 1) + Z^2 \cdot p \cdot q}
\]

where,

- \( n \) = sample size
- \( Z \) = the value of standard variate at a given confidence level
- \( p \) = sample proportion
- \( q = (1 - p) \)
- \( N \) = population size
- \( e \) = acceptable error

Assuming a confidence level of 95%, \( Z = 1.96 \)

Population size of failed units (N) = 9605

(in manufacturing sector)

For an acceptable error (e) of 3.00% and for \( p = 0.05 \), the required sample size works out to 199 as under.

\[
    n = \frac{1.96^2 \cdot 0.05 \cdot 0.95 \cdot 9605}{0.03^2 \cdot (9605 - 1) + 1.96^2 \cdot 0.05 \cdot 0.95}
\]

\[
    = 198.49
\]

say, 199.

(the sample size chosen for failed manufacturing units is 502, which is acceptable)
II. Successful units in Manufacturing sector

In case of finite population, the acceptable sample size is given by the following relationship

\[ n = \frac{Z^2 \cdot p \cdot q \cdot N}{e^2 \cdot (N - 1) + Z^2 \cdot p \cdot q} \]

Assuming a confidence level of 95%, \( Z = 1.96 \)

Population size of successful units (N) = 11411

(in manufacturing sector)

For an acceptable error (e) of 3.00% and for \( p = 0.05 \), the required sample size works out to 199 as under.

\[ n = \frac{1.96^2 \times 0.05 \times 0.95 \times 9605}{0.03^2 \times (9605 - 1) + 1.96^2 \times 0.05 \times 0.95} \]

= 199.23

say, 199.

(the sample size chosen for successful manufacturing units is 572, which is acceptable)

III. Service sector

The population size of the service sector units is only 651 in the total population of 21667. The sample size of failed units in service sector is only 12 and the sample size of successful units in service sector is only 29. The sample size is smaller in view of the fact that the size of the population itself is comparatively smaller. The total size of the samples taken from the service sector from among both the failed and successful units is 41, which being greater than 30 can be considered as a large sample. The sample size of 41 for a population size of 651 \((174 + 477)\) works out to 6.30 %, which is also considered adequate by the rule of thumb of 5%.
IV. Manufacturing units

The breakup details of manufacturing units financed by TIIC under different sectors and the breakup details of samples that fall under these sectors are given in Table 1.2.

Table 1.2 Sector wise breakup of population and samples

<table>
<thead>
<tr>
<th>Sector</th>
<th>No. of units</th>
<th>No. of samples</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiny sector</td>
<td>11617</td>
<td>584</td>
<td>5.03%</td>
</tr>
<tr>
<td>S.S.I. sector</td>
<td>8457</td>
<td>442</td>
<td>5.23%</td>
</tr>
<tr>
<td>M.S.I. Sector</td>
<td>942</td>
<td>48</td>
<td>5.09%</td>
</tr>
<tr>
<td></td>
<td>21016</td>
<td>1074</td>
<td></td>
</tr>
</tbody>
</table>

The sector wise sample size of manufacturing units also falls above 5.00%, which is considered adequate for analysis.

The sector wise breakup details of the population are depicted in Chart 1.2(a) and the sector wise breakup details of the sample are given in Chart 1.2(b)

1.12.4 Tools of analysis

The following statistical tools were used for the study.

a) Factor Analysis
b) Z-Test
c) Garrett’s Ranking technique
d) Percentage Analysis
e) p-Test
f) Chi Square Test
a) Factor Analysis

Since the many causes for the failure of entrepreneurial ventures were already identified and defined from the review of literatures and from the pilot survey, the various causes were grouped under different causative factors. At the first stage, Factor Analysis groups related variables into factors. From the variables under each factor, one or more contributing variables are identified based on factor loading. The different factors that are responsible for the failure of entrepreneurial units and the variables that fall under each of these factors have been identified through the study of literatures and these grouping of variables (as given under para 2.11, Chapter II) was taken as the basis and in this research Factor Analysis was used to identify those variable / variables under each factor that contributes / contribute significantly to that particular factor. The variables that contribute significantly under each factor were identified such that whose correlation (Factor Loading) with that respective factor was greater than or equal to 0.40, since a factor loading of 0.40 gives a moderate correlation. Calculation of Factor Loading to identify the contributing variables under each factor was done separately for the sample of failed entrepreneurial units in manufacturing sector, the sample of successful units in manufacturing sector, the sample of failed and successful entrepreneurial units in Tiny sector and the sample of failed and successful entrepreneurial units in S.S.I. sector.

The questionnaire to extract responses from the respondents was designed taking the above set of factors and variables within each factor as the basis. The scores obtained from the respondents were used as input and SPSS - Version-11 package was used to extract factor-loading values for each of the variables under every factor. After arriving at factor-loadings, those variables with a factor-loading of greater than or equal to 0.40 were identified and were considered as the contributing variables under each factor. Factor-loading value of 0.40 and above was considered for identifying the contributing variables since a factor-loading of 0.40 indicates Moderate correlation. Thus, those variables with ‘Moderate’ and ‘above Moderate’ correlation were classified as contributing variables under each factor.
b) Z - Test

Among the contributing variables that correlate with the respective factor with a factor loading of 0.40 and above, the variable with highest mean value was identified. The other contributing variables contained in that respective factor were compared with that variable whose mean value is highest, by means of Z-Test. Z-Test was conducted with a level of Significance of 0.05. Those variables that vary significantly (i.e., those with level of significance less than 0.05) were ignored and the variables that do not differ significantly were identified and grouped together as the variables contributing to failure significantly.

The contributing variables identified from the sample of failed entrepreneurial units and from the sample of successful entrepreneurial units were compared to arrive at the contributing variables that significantly influence the failure of entrepreneurial units.

c) Garrett’s Ranking Technique

The contributing variables thus identified were given to the respondents belonging to the failed units and were asked to rank them in the order of importance.

Garrett’s Ranking technique provides a method of converting order of merits into numerical scores. Since the ranks offered by the respondents to the variables that cause failure are nothing but order of merits, Garrett’s Ranking technique was used to ranks assigned by the respondents to the variables into numerical scores. The ranks assigned by the respondents were converted into percentile position using the formula suggested by Garrett E. Henry, which is as under:

\[ P = \frac{100 (R - 0.50)}{N} \]

Where,

- \( P \) = Percentile position
- \( R \) = Rank
- \( N \) = Number of items ranked

For the above Percentile positions, Garrett’s table gives the scores that represent the equivalent rank on a scale of 100 points.

For the percentile positions, scores were obtained from Garrett’s Table. The scores represent the equivalent rank on a scale of 100 points. The scores were taken as the values of the variable (\( x \)) and the number of respondents giving ranks as frequencies (\( f \)) and the total
score for each variable was found by multiplying the values with the respective frequencies
(x. f). On the basis of the total score obtained for each variable, the variables were finally
ranked. The ranking of variables by this method shows the relative importance of the
variables that cause failure, since the variables are arranged in their order of importance.

d) Percentage Analysis

Percentage analysis gives a straight and simple answer to problems where we are
interested in knowing the relative importance of variables contained in a factor.
To identify industry specific causes that influence failure of industrial units significantly,
percentage analysis was used.

e) p-Test

Since the population size of the service sector itself is small as compared to the
population size of the manufacturing sector, the sample size of service sector has also
come out to be comparatively smaller. However, since the sample size of service sector is
41, it is considered as ‘large sample’ (sample size being greater than 30) and p-test which
is a test used to test the population proportions was conducted to identify the variables
that influence the failure of units in service sector significantly.

f) Chi Square Test

Chi square [ $\chi^2$ ] is defined as,

$$\chi^2 = \sum \frac{(O_i - e_i)^2}{e_i}$$

where,

$O_i$ = Observed frequency of $i^{th}$ observation
&
$e_i$ = Expected frequency of $i^{th}$ observation

Applications of Chi square test

Chi square test is used

a) for testing the significant difference between observed and expected frequencies.

b) for the testing of independence of attributes  &

c) for testing goodness of fit.
The measure of Chi Square enables us to find out the degree of discrepancy between the observed frequencies and theoretical frequencies and thus to determine whether the discrepancy so obtained is due to error of sample or due to chance.

Chi Square test as a test for finding the significant difference between observed and expected frequencies was used for analyzing the responses given by the respondents on their views about the role of TIIC, the functioning of TIIC and their expectations of TIIC.

Chi Square test as a test for identifying the independence of attributes was used to judge the association between the attributes ‘experience’ and ‘performance’, i.e., between the performance of first generation entrepreneurs and that of already established entrepreneurs.

Chi Square test as a test for identifying the independence of attributes was used to judge the association between attributes ‘entrepreneurial traits’ and ‘performance of entrepreneurial units’.

1.12.5 Data Analysis

a) Factor Analysis and Z-Test as enumerated under paragraphs 1.12.4 (a) & (b) were conducted on the sample of 502 responses obtained from respondents belonging to failed entrepreneurial units engaged in manufacturing activity and the variables contributing significantly to failure were identified.

b) Factor Analysis and Z-Test as enumerated under paragraphs 1.12.4 (a) & (b) were conducted on the sample of 572 responses obtained from respondents belonging to successful entrepreneurial units engaged in manufacturing activity and the variables contributing significantly to failure were identified.

c) The results obtained through the above two analyses were compared and the significant causes were culled out.

d) The variables contributing significantly to failure as identified through the above analyses were given to the entrepreneurs of failed manufacturing units and they were asked to rank these variables in the order of their influence on failure. The ranking offered by the respondents to the identified variables were taken as input and using Garrett’s Ranking technique, the variables were ranked and arranged in their order of importance.
Out of the total number of 21016 manufacturing units, the number of manufacturing units belonging to Medium Scale Industrial Sector (M.S.I. sector) is only 942. The remaining 20074 units fall under Tiny and SSI sector, the share of Tiny units being 11617 and the SSI units being 8457. As the manufacturing units in Tiny and SSI sector form major part of units that have availed financial assistance from TIIC, sector specific causes responsible for failure of manufacturing entrepreneurial units were analysed for Tiny and SSI sector.

e) Factor Analysis and Z-Test as carried out in (a) and (b) above were done using the responses obtained from both failed as well as successful entrepreneurs belonging to manufacturing units in ‘Tiny Sector’ and the results of the analysis were compared with the results obtained in the analyses carried out using the sample of failed and successful entrepreneurs. (i.e., with the results obtained in step (c) above). The causative variables that stand out and were found to be specifically responsible for the failure of entrepreneurial manufacturing units in Tiny sector were identified.

f) Factor Analysis and Z-Test as carried out in (a) and (b) above were done using the responses obtained from both failed as well as successful entrepreneurs belonging to manufacturing units in ‘S.S.I. Sector’ and the results of the analysis were compared with the results obtained in the analyses carried out using the sample of failed and successful entrepreneurs. (i.e., with the results obtained in step (c) above). The causative variables that stand out and were found to be specifically responsible for the failure of entrepreneurial units in S.S.I. Sector were identified.

g) Percentage Analysis was carried out for identifying those variables that contribute significantly to failure in respect the following five major industrial sectors:

- Textiles
- Engineering
- Food processing
- Paper and Paper Products
- Chemical

After identifying the variables that contribute significantly to failure, they were compared with the results of the overall analysis (as obtained in Para ‘c’ above) and
the variables that stand out were noted which represent the industry-specific variables influencing failure of the respective industries.

h) Out of the total population of 21667, the number of units pertaining to service sector is only 651, which forms only 3% of the population. Since the population of service sector itself is small, the sample size of service sector is also small, the sample containing 41 respondents. Keeping in view the sample size, p-test was conducted to identify the variables influencing failure of units in service sector

i) Being a development finance institution, TIIC caters to the financial requirements of first generation entrepreneurs without hesitation, while commercial banks in general prefer to be associated with those entrepreneurs who have proven records. Since first generation entrepreneurs generally lack adequate exposure and experience in their chosen line of activity, an analysis was carried out to find out the association, if any, between exposure and experience in the industry and performance. In other words, this analysis was used to judge if there is any association between success/failure of entrepreneurial units and the generation to which the entrepreneurs belong. (viz., whether they are first generation entrepreneurs who are new to the industry or already established entrepreneurs who have sufficient exposure and experience in the industry and who have gained sufficient insight into the intricacies of managing their units successfully). For testing this association, Chi Square test of independence of attributes was used.

j) The success/failure of any venture is expected to be dependent on the entrepreneurial traits of the entrepreneurs who promote such ventures. Hence, the association between entrepreneurial traits and success/failure of entrepreneurial ventures was studied using Chi Square test of independence of attributes.

k) The opinions obtained from the respondents, who are borrowers of TIIC on the policies, financial norms, and operational procedures were analysed using Chi-Square test. In this regard, the following aspects were studied.

- TIIC’s policies related to extending financial assistance for the setting up of industrial units.
• TIIC’s loan sanction procedures.
• Time taken for the sanction of loan / processing of service requests
• Escort services offered by TIIC
• Promoter’s contribution stipulated by TIIC
• Interest rate system followed by TIIC (discretionary vs. non-discretionary system of interest)
• Interest rate type followed by TIIC (fixed vs. floating rate of interest)

l) Project promoters are expected to bring in the stipulated promoter’s contribution from out of their own resources. If their financial capacity is weak and if they resort to borrowing for bringing in a portion of the promoter’s contribution also (though they normally do not reveal this to the financial institution at the first instance), it will have a bearing on the financial projections on the strength of which the bank/financial institution advances loan. Chi Square test of independence of attributes was used to test the association between borrowed ‘promoter’s contribution’ and the success/failure of entrepreneurial units.

1.13 Limitations of the study

a) The scope of the study is to identify the causes that influence failure of industrial entrepreneurial ventures started with the Term loan assistance of TIIC that has contributed to the low recovery performance of TIIC. As such, the study is based on responses received from respondents located within the state of Tamilnadu. The industrial climate, techno-economic factors, man-power availability etc., may vary in other parts of the country outside the state of Tamilnadu and this may make the results of the study distorted when applied to other parts of the country outside the state of Tamilnadu.

b) The study is restricted to entrepreneurial units promoted with the financial assistance of TIIC. Since TIIC extends financial assistance only for manufacturing and service activities, the results of the study may not be applicable for entrepreneurial ventures undertaking trading / business activities.
c) Since the study is restricted to entrepreneurial units promoted with the financial assistance of TIIC, the results of the study in respect of financial aspects may not be applicable for entrepreneurial units promoted by entrepreneurs investing totally their own capital or with the help of borrowings from commercial banks / other financial institutions. However, the findings in the areas of production, personnel, marketing, management etc., may have relevance and applicability for all industrial units started/to be started within the state of Tamilnadu since all the industries started in the state of Tamilnadu will be on the same footing with regard to these four functional areas.

1.14 Chapter scheme

Chapter – I

Chapter – I gives a brief introduction of TIIC, explains the statement of the problem taken up for the study, lists out the objectives of the study and describes the data collected for the study. It also explains the Research Methodology adopted and indicates the limitations of the study.

Chapter – 2

Chapter – II gives an account of the review of literatures connected with entrepreneurial failures and their underlying causes.

Chapter – III

Chapter – III deals with the projects financed by TIIC, the norms followed by TIIC for financial assistance, the composition of loan portfolio of TIIC and the status of loan accounts of TIIC.

Chapter – IV

Chapter – IV discussed the loan recovery performance of TIIC and the level of Non-performing assets (NPA) in the loan portfolio of TIIC. It also offers a comparison of the NPA level of TIIC with that of commercial banks in India.

Chapter – V

Chapter – V deals with data analysis. The data analysis has been carried out in ten stages with each stage of analysis devoted to a particular objective of the study.
Chapter – VI

Chapter – VI narrates the findings of the study with regard to the prime causes for the failure of industrial units started with the financial assistance of TIIC, suggestions for avoiding/overcoming failures, suggestions for improving the functioning of TIIC in tune with customer expectations and solutions to the issues faced by the entrepreneurs whose projects have been funded by TIIC. Scope for further research in the area of entrepreneurship has also been dealt with in this chapter.

Chapter – VII

Chapter – VII gives conclusion of the study, highlighting its relevance and importance, especially in the present scenario of economic slow down.
References


