## **Determinants of Industrial Sickness in Small Scale Enterprises**

An empirical evidence of three districts of Andhra Pradesh

A Thesis submitted to University of Hyderabad in partial fulfillment of the requirement for award of

## **Doctor of Philosophy**

In

**ECONOMICS** 

By

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**July 2020** 



## **Certificate of Authenticity**

This is to certify that the research work embodied in the present thesis entitled "**Determinants** of Industrial Sickness in Small Scale Enterprises: An empirical evidence of three districts of Andhra Pradesh" submitted by Siva Krishna Golla bearing registration number 14SEPH25 in partial fulfillment of the requirements for award of Doctor of Philosophy in the School of Economics is a bona fide work carried out by him under my supervision and guidance.

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#### Parts of this thesis have been:

- A. Published in the following publication
- 1. 'Promoter' as an agency in decline of "market orientation" across small scale enterprises in Andhra Pradesh: Study on three selected districts', Journal of Public Affairs, 03 February 2020, <a href="https://doi.org/10.1002/pa.2079">https://doi.org/10.1002/pa.2079</a>
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#### B. Presented in the following conferences:

1. Participated and presented a Research paper titled 'A Factor analysis on the Determinants of Industrial Sickness in Small Scale Enterprises in Andhra Pradesh' in XVI International Conference on Recent "Trends in Engineering, Applied Science, and Management" held on 19th May, 2018 at Osmania University Center for International Program, Osmania University Campus, Hyderabad.

2. Participated and presented a paper titled 'Impact of MSMED Act 2006 on Growth and Performance of MSMEs in India' in a Two Days ICSSR Sponsored National Seminar on Performance, Problems and Prospects of MSME in India organized by the department of commerce, Government college(A), Ananthapuram, Andhra Pradesh on 28th – 29th July 2017

Further, the student has passed the following coursework requirement for Ph.D. The following courses passed during his PhD course work:

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2.	EC-702	Social Accounting and Data Base	4.00	PASS
3.	EC-703	Research Methodology	4.00	PASS

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**Declaration** 

I Siva Krishna Golla, hereby declare that this thesis entitled "Determinants of Industrial Sickness in Small Scale Enterprises: An empirical evidence of three districts of Andhra Pradesh" submitted by me under the guidance and supervision of Dr. K. Ramachandra Rao, School of Economics, is a *bona fide* research work, which is also free from plagiarism. I also declare that it has not been submitted previously in part or full to this University or any other University or Institution for the award of any degree or diploma. I hereby agree that my thesis can be deposited in Shodganga/INFLIBNET.

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Siva Krishna Golla

G. Siva Wisha

# Dedicated to my Family

#### **SUMMARY**

Title: Determinants of Industrial Sickness in Small Scale Enterprises: An empirical evidence of three districts of Andhra Pradesh

The research focused on the factors (determinants) leading to industrial sickness in small scale enterprises. As per trends and classifications in literature, two broad set of factors: 'controllable' aspects and 'non controllable aspects; were considered for research. The literature on 'business/firm failure' seeks to interpret the causes controllable and non-controllable) and dynamic processes that often lead to failure in organizational ability to deliver, to sustain and achieve economic viability.

The 'internal controllable factors' classify as the controllable influences which have been observed as possessing maximum impact on operations, SME based ability to adjust and adapt to changing business environment, as well as sustenance of business. The 'non-controllable' influences have been observed as emerging from the near neighborhood, the society or the business environment and categorize as non-controllable to a larger extent. The factors were shortlisted after extensive review of the existing literature, theoretical frameworks and the conceptual notes with regard to the phenomenon of the market orientation decline or industrial sickness across the small scale units. Organizational failure behavior as underlined comprises the problems of incentive generation as well as bounded rationality.

The study deployed the likert scales for operationalizing the aforesaid factors and involved a sample size of 300 industrial units. Upon reliability and validity analysis, the statistically significant relationship was observed across controllable and non-controllable aspects as shaping the sickness propensity. This was further vindicated by regression modeling and the sickness probability examination. The moderating impact of entrepreneur's orientation was observed on shaping of phenomenon. In simpler terms, the probability of sickness being evident across industrial units in SME sector in Andhra Pradesh is reliant on factors as assumed in the study. The differences in perceptions were observed across three districts of Andhra Pradesh perspective. The research outcomes of this study argue that promoter and promoter's perceptions of non-promoter factors would be positively related to industrial sickness probability. The research outcomes argue that promoter (entrepreneur) as an agency and his 'entrepreneurial orientation' significantly impacts behavior and sickness based outcomes.

The observed indicators of non-promoter driven aspects were 'factor endowments', 'infrastructure hassles', 'bank credit availability', 'policy uncertainty', 'changes in economy' and promoter based aspects were quantified with aid of 'capacity utilization', 'managerial control', 'resource planning', 'entrepreneurial orientation', 'occupational commitment'. It is worth mentioning here that the aggregate main effect structural model is a possible depiction of the hypothesized relationships. The path estimates (β) critically point towards statistically significant impact of independent factors on the dependent factors. The research outcomes points towards the incidence of substantial impact of 'lack of business continuity planning' and 'misguided market acuity' as influencing state of industrial sickness. The phenomenon of "unit based industrial sickness" in small scale enterprise in developing economies is a socially constructed and contextually determined phenomenon that involves promoter's role and responsibilities(internal contexts involving the aspects of orientation, integrity, control, capacity utilization, commitment) as well as unit's external dependencies(resource based, policy marshaling, infrastructural and credit) and the pattern of market orientation; that collectively impact the ability or inability of the unit to meet the expenses and face financial risks". The outcomes point towards contextual embeddedness of small firm behavior in Andhra Pradesh perspective.

Key Words: Failure causes, Industrial Sickness in SSI sector, Andhra Pradesh, Factor analysis, SEM, Entrepreneur, Firm Behavior.

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## LIST OF ABBREVIATIONS

A.P. Andhra Pradesh

AMOS Analysis of moment structures
CAGR Compound Annual Growth Rate
CFA Confirmatory Factor Analysis
CII Confederation of Indian Industry

CIS Common wealth of Independent States

CRISIL Credit Rating Information Services of India Limited

DIC District Industry Centers EFA Exploratory Factor Analysis GDP Gross Domestic Product

IBEF India Brand Equity FoundationIFC International Finance CorporationIMF International Monetary Fund

KMO Kaiser-Meyer-Olkin

MSME Micro Small and Medium Enterprises
NIC National Industrial Classification
NSIC National Small Industries Corporation

NSS National Sample Survey

OECD The Organization for Economic Co-operation and Development

RBI Reserve Bank of India

SEM Structural Equation Modeling

SEZ Special Economic Zone

SIDBI Small industrial Development Bank of India

SME Small and Medium Enterprises

SMMTE South African small, micro and medical tourism enterprises

SPSS Statistical Package for Social Sciences

SSI Small Scale Industry SSEs Small Scale Enterprises

## 1 Introduction

### 1.1 Background of Research

The post-independence era in India pitched for the high intensity industrialization. The export based thrust and import substitution policy as well as development of national industrial base, emerged as the thrust areas for respective economic policy making in independent India. The initiation of macroeconomic reforms in post 1990s awarded a legendary role to the Small scale enterprise (SSE) sector-based enterprise in revival of industry and national manufacturing in Indian perspective.

The Small scale enterprise (SSE) sector is observed to contribute substantially towards the economy in short run as well as in long term growth prospects. The SSI sector comprises the entrepreneurial units that undertake risk and contribute towards the national and regional production of goods (Patil, 2011). The term small scale sector (Chandraiah, 2014) comprises the small scale entrepreneurs who indulge in manufacture and production of the goods and services on the relatively smaller scale yet contribute significantly towards the national GDP, regional macroeconomic stabilization, employment generation, competitiveness in economy as well as development of ancillary support to the major industry and industrial developments in the region. The SSI ministry reported that in 2016-17 share of SSIs was 31.8 per cent in terms of gross value added, 48.10 per cent in terms of products in total exports and 4.08 lakhs in terms of employment generation. The "theoretical orientation" of small scale enterprise (SSE) sector revolves around the role of the individual (entrepreneur) capabilities and the "contextual factors" that shape the potential realization across the SSE sector in Indian perspective. Across the literature, the role of "entrepreneur" or the "promoter" has been emphasized heavily. Further reflections on the subject matter reveal that the economics insist more on the inputs yet reflects nominally on the origins and the roots of the exogenous phenomena. Still there is insufficient literature in economic terms that reflect and seem to integrate the entrepreneurial deficiencies in an economy like India. The "entrepreneur" as an institution in economic development has least emphasized with regard to developing nations. There is a range of studies

that underline the role of the entrepreneur and his skills and capabilities as driving the small business or small scale sector based survival (Dragnic, 2014).

### 1.1.1 Research on factors leading to "Industrial Sickness" in Small Scale Sector

The "small business" or "small-scale unit" has been identified as more individual dominated or extensive focus on individual agency (Joshi, 2013). The person borne capabilities (Nadkarni, 2008) or deficiencies (Protogerou, 2008); do impact the outcomes and organizational survival. Indian context (Altenberg, 2011) of Small scale firms is characteristically different from global thinking as more family run enterprises with non-professional management is evident in Indian perspective. The individual sense making (Belak D. , 2012) and leverage of competencies and resources, usual restricted access to market as well as economic factors of production, constrained perceptions of the state authorities, policy change by banking and credit institutions as well as the larger sensitivity towards the interference from state and other contextual and socially determined factors; do exert a larger impact on industrial economic health. The Indian perspective of small scale firms seem to differ from global discourses in terms of stakeholders, the classification of possible causes, in terms of financial interpretation of assets and liabilities and in terms of market orientation.

Table 1.1: Interpreting the small scale industries and industrial sickness

Global Interpretation	Indian perspective	Andhra Pradesh based
Khelil and Smida	Khandwalla's approach towards	State based industrial policy
Observes the industrial sickness	organizational decline and	
as an outcome of entrepreneur's	turnaround (Khandwalla, 1981)	State based financial policy
self-deception and biases in		
decision making (Khelill, 2016)	Government based industrial	
	policy interprets the sector and	
Oogachi Framework	the units in terms of the	
Regards the phenomenon as an	investment caps as well as the	
outcome of owner's articulation	contribution towards the	
of corporate and business	economy	
interest (Fernado, 2014)	BIFR approach (Manimala,	
	1991)	
Resource dependency theory		
(Garicano, 2015)	Government based financial	
	policy	
Contingency theory emphasizes		
the influences of social	RBI perspective interprets the	
embeddedness and contextual	small-scale units as involving	
actors	the investment proposition in	
Stakeholder approach	terms of assets and liabilities.	

Source: Compiled by author

The term "small scale sector" has usually been defined in terms of the investment caps on the original value of the pre-installed asset base comprising the equipment, processing plant, technology and the processing machinery that enables the operations of the unit. There is plethora of literature that identifies and reflects tremendously on the possible internal and external factors that shape 'industrial sicknesses' across fragile small scale sector. The sections below emphasize the internal and external factors as shaping the phenomenon.

#### 1.1.2 Internal 'controllable' factors as leading to industrial sickness

The literature (Khandwalla, 1981) identifies controllable aspect especially the internal factors as bearing a more imprint on industrial sickness than the external factors. The 'internal factors' classify as the controllable influences which have been observed as possessing maximum impact on operations, SSE based ability to adjust and adapt to changing business environment, staying power deficiency as well as sustenance of business. The managerial or entrepreneur's ability to take right decisions and conduct operations efficiently identify as prime contributor to organizational survival and ability to innovate. The illustration below (table-1.2) brings together the factors as identified across literature. These factors are largely controllable yet contribute substantially towards the industrial or organizational decline.

Table 1.2: Controllable internal aspects as identified from literature

Controllable Factor	Literary Support	
Entrepreneurial (or managerial) ability to	(Agle, 1999), (Ahmad S., 2009), (Bamfo, 2015),	
conduct current operations	(Calvo, 2010), (Chittithaworn, 2011), (Lahtinen,	
(Organizational operations are beyond control and	2011), (Pacheco, 2015), (Manimala, 1991),	
haphazardness prevails, non-acceptable quality of	(Chakravarty, 1983),	
production and products, non-strategic		
diversification, faulty personal management		
policies, supply chain loopholes)		
Entrepreneurial (or managerial) ability to	(Crutzen, 2010), (Dess, 1983), (Fernando, 2017),	
adapt and adjust	(Ambrosini, 2009), (Fernado, 2014), (Nadkarni,	
(Organization remains blind to need for change or	2008), (Bretherton, 2005), (Raymond, 2010),	
abstains from changing the product or service mix	(Natarajan, 1985)	
or undertakes late action)		
Defects in financial structure/capital allocation	(Brown, 2012), (Datta, 2013), (Dai, 2010),	
mechanisms	(Bidani, 1983), (Bamfo, 2015), (Pearson, 2001),	
	(Neill, 1986)	
Misconceived project approach	(Siddiqui, 2018), (Ahmad, 2009), (Yazdipour,	
	2010), (Arasti, 2014), (Runyan, 2007), (Vijande,	
	2012)	

Source: Compiled by author

Across the existing literature on subject matter (Cruzten, 2008), industrial sickness or corporate failure across SSE units has been a dominant phenomenon. A review of publications and citations across leading journals (Bretherton, 2005) reveal the incidence of gross instance of inability of the small sale units to conform itself with economic environment, non-ability to fit across changing economic and business circumstances as well as gross incompliance with regard to grow, sustain and survive. Despite the evident role of small scale enterprises in supporting larger and mid-sized industrial ecosystems and manufacturing activity, the sector has been observed to sizzle under pressure and is reportedly facing more failures and sickness than ever before. Such a state of economy is not only evident across developing nations but also across developed economies of world.

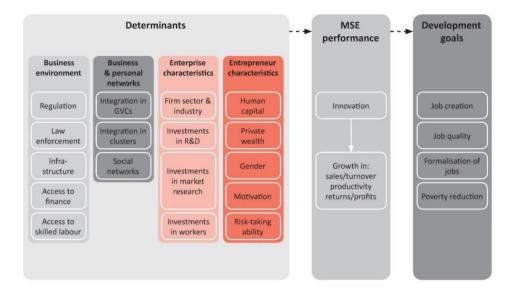
Another perspective (Ahmad S., 2009) on organizational sickness elaborates on the deterministic propositions involving the industry structure and input-output approach towards understanding the phenomenon of industrial sickness in small to medium sized enterprises. Another economic theory (Garicano, 2015) details the "industrial failure" as an outcome of two dimensions. The study across European firms (Garicano, 2015) concluded that organization become sick as they lack incentive based support (managers, decision makers and stakeholders do not act in the manner that upholds organizational interests) or organizations succumb to rationality problems (decision makers, managers and employees do not possess the insights and knowledge, information and data with regard to acting in a rational manner). "Bounded rationality" in decision making as well as ability or inability of the decision makers to "pursue corporate interests" across turbulent business environment, figure as two prominent yardsticks and parameters to define and understand the contexts that seem to be heavily researched aspects across existing economic literature on "industrial sickness" across small to medium enterprises.

A host of academic studies (Alom, 2016) link the "entrepreneur" as vital for "organizational" survival or failure in business terms. A study (Alom, 2016) across Malaysia on microenterprises regarded the "entrepreneur" as a vital "contextual" factor that seem to shape the extent to which the SSE units can or fail to contribute towards the realization of national economic goals. Another study (De-Mello, 2007) identified and dispositional antecedents "internally determined" and the "externally"

driven "contextual" elements. The "ability" of the enterprise to contribute towards the economy (Farrokh, 2016), local level job creation and employment generation across the developed and developing economies; is more socially determined and contextually driven. The "level of sophistication" of economy at national and state level (Altenberg, 2011), regional and national endowment of natural resources and critical inputs, location, history of region as well as general capabilities and development orientations of the political factors. The existing literature elaborates on the constraints that inhibit the tendency of the small-scale firm to exhibit consistent performance. The external constraints (Conner, 1991) have been identified as comprising the entrepreneur's knowledge of the demand conditions relevant to product being manufactured, public policy and support from the institutions as well as the competitor actions and their interpretation. The internal contextual constraints have been classified as "entrepreneurial characteristics and capabilities". Such constraints often lead to industrial sickness as they influence the firm's abilities to combine the inputs, ability of the enterprise to develop new ways of competing, ability of the firm to seek production and respective distribution driven efficiencies.

The "Small Scale Industries in India" has today become a development engine for the financial system (Arora, 2003), contributing significantly to increase in the GDP, employment and exports etc. This is the second largest sector which gives most employment after agriculture. This sector has continued to boost its contribution in India's economic progress, but SSE cannot contribute perfectly in comparison of other industry because of some complexities. There are some problems which are responsible to prevent the growth of SSI in India. At present the Government of India is attempting to expand the country's industrial base and to increase the emphasis on employment and export industries. Small-scale industry comprises such facilities, which employ less capital and more labor incentive. The existing literature (Dholakia, 1989) visualizes the crucial role of the small-scale industry in lending the material and supplier based support to larger units. The literature (Reeg, 2015) points towards four pillars: 'entrepreneur characteristics', 'enterprise characteristics', 'business networks' and 'business environment' as vital in shaping the survival or sickness prospects across small scale sector. As illustrated below(figure 1.1), these four determinants exert significant impact on SSE performance in terms of firm based ability to innovate, growth in sales or turnover, returns, productivity and profit generation as

well as achievement of macroeconomic goals like job creation, job quality, formalization of jobs and subsequent reduction in poverty.



Source: (Reeg, 2015)

Figure 1.1: Contextual influences on SSI performance

The sector is under severe stress and threat of survival is looming large because of factors that are known yet still in actionable. The small-scale sector in a developing economy with federal setup like India is finding hard to survive the onslaught of the demands for economic competitiveness as well as the prevailing industry structure. The traditional as well as skill based as well as commodity-based industries are facing the threat to survival and strategic sustenance. A review of the nation's banking system (Muthu, 2015) revealed the incidence of the substantial funds been locked across the non performing or declining small scale units who are finding it hard to thrive, sustain operations, meet organizational requirements as well as enough access to liquid assets and resources. The industrial structure (Brown, 2012), macroeconomic investments (Carree, n.d.) and economic stability (De-Mello, 2007) are all inter related with each other. Some of the factors are visible to the owners and the promoters yet they are not acting in the manner they are supposed to. The contextual determinants of the promoter's ability to manage the business affairs seem to matter as the internal and external dimensions do impact the ability of the promoter to perform consistently.

The promoter's human capital and skills (Unger, 2011) have been observed to shape the prospects for firm based survival or sickness. A host of existing studies (Baptista, 2014) underline a common relationship across "entrepreneur's human capital" and firm based prospect for survival, growth or failure. The studies (Omri, 2015)were observed to be unanimous in opinion that entrepreneurial mindsets and skills do shape the impetus of decision making, challenge management and opportunity mining. The "human capital" aspects impacting the entrepreneurial performance have been classified as formal exposure and experience, domain education, role specific entrepreneurial experience, passion and general inclination for being risk taking, proactiveness, competitive aggression and innovation in product and process.

#### 1.1.3 External 'non-controllable' factors as leading to industrial sickness

The 'non-controllable' influences have been observed as emerging from the near neighborhood, the society or the business environment and categorize as non-controllable to a larger extent. The term controllable signifies the lack of management's control over the functioning over other institutions, over other social and economic actors and industrial stakeholders. The illustration below (table 1.3), captures some of the prominent non controllable influences from across business environment.

Table 1.3: Non controllable influences as identified from literature

Factor	Literary Support	
Changes in current industry	(Bridoux, n.d.), (Conner, 1991), (Jennings, 1995),	
Government policy based turbulence	(Mehralizadeh, 2005), (Ahlstrom, 2004), (Muthu,	
	2015), (Zammel, 2016), (Manimala, 1991)	
Access to factors of production	(Panigrahi, 2012), (Ooghe P., 2006), (Shafique,	
	2013), (Spencer G., 2003), (Pearce, 1993),	
	(Siddiqui, 2018), (Cruzten, 2008)	
Credit availability	(Rocha, n.d.), (Lee Y., 2016), (Thornhill, 2003),	
	(Rizzo, 2012), (Datta, 2013), (Saparito, 2009)	
Infrastructure connectivity	(Sharma, 2000), (Rocha, n.d.), (Gyampah, 2008)	

Source: Compiled by author

## 1.1.4 Regional contexts of current research

The research limits itself to a "context" that is quantifiable and is of particular value to the policy makers and all those who are going to benefit from the conduct of the research. The interpretation and delimiting of the contexts hence plays a crucial role in the overall research design and approach. The existing research studies (Marlow, 2014) on the subject of "entrepreneurship" across small scale sector; classify the vivid "contexts" as either "socially constructed" or as involving the "temporal aspects", "industry" and "market driven" aspects, "spatial" features and "organizational" paradigms as well as ownership derived and governance based aspects. The "small scale units" involve a larger than life impact and influence of the promoters or the entrepreneurs. The entrepreneurs in turn rely on the intrinsic knowledge bases and own initiatives and assessment of the environment that is equally shaped and influenced by the enveloping contexts. The research as such needs to be posited in local and regional contexts as these are observed to shape the energies, the aspirations and the actions of the entrepreneurs in multiple ways and aspects. The "contexts" on the other side could be evident in form of temporal aspects, social aspects, industry and market, spatial aspects, organization and ownership-based issues. Such contexts in case of this research resident in Andhra Pradesh could involve the dimensions of the state specific temporal aspects, local and culturally determined social aspects, prevalent industry and market, industry spatial aspects, organization and ownershipbased issues.



Source: (Marlow, 2014)

Figure 1.2: Underlining the contexts in quantification of entrepreneurial behavior

The current research hence is not devoid of the "influences" from across the state policies with regard to industry development, small scale sector promotion as well as state bound policy for industrial cluster development and incentives for the smallscale manufacturing and entrepreneurial promotion. Though the entrepreneurship is part of state policy mechanisms and institutions yet the ground level impact matters across the realization of the potential. The mental and psychological preparation as well as awareness of the locally resident entrepreneurs also matter in case of the resolve of the promoters. The District Industry Centers (DIC) and extent of updated information made available to the promoters and institutionalization of such knowledge sharing mechanisms do matter for the grooming of the next generation entrepreneurs. Hence the extensive linkages across the locally determined "structural factors", "behavioral factors" and "contextual factors" do shape the working environment and hence the operational environment for this current research exercises. The structural factors (Farrokh, 2016) were observed to be shaped by the promoter's interest (Duh, 2010) and inclination towards the strategy incorporation (Goswami H., 2016) or non-incorporation in day to day decision making exercise. The behavioral factors (Farrokh, 2016) often operate in terms of promoter's extent of investment in talent, skill and human resources, assessment and judgment with regard to current environment, promoter's knowledge of entrepreneurship (Bamfo, 2015), sense making capacities (Kessler, 2012) as well as opportunity recognition abilities (Sekar, 2012). The locally derived "contextual" factors (Farrokh, 2016) like the governance structures and government support mechanisms and institutions, environmental dynamics and turbulence as well as the complexity do impact the overall scope and pattern of growth of the SMEs and especially the under financed and poorly financed firms and manufacturing enterprise in the developing world. These locally prevalent contexts matter as they have a long history of significant impact and influence on the structural, behavioral and the contextual growth as well as survival and respective instances of sickness of the small scale based industrial manufacturing units. The small-scale sector across the state of Andhra Pradesh comprises the focus on the industrial development of the state<sup>1</sup>. The state authorities boost about the 230000-small scale registered units. The state has reserved a total of 821 goods that are to be exclusively manufactured by the state based small scale sector. The industrial centers in Andhra Pradesh have been observed to be scattered across the state geography and the regional factor conditions (as explored by Porter)

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<sup>&</sup>lt;sup>1</sup> http://dcmsme.gov.in/policies/state/andhra/andhra.htm

do impact the cluster location and subsequent manufacturing focus of the small to medium scale industrial units in Andhra Pradesh.

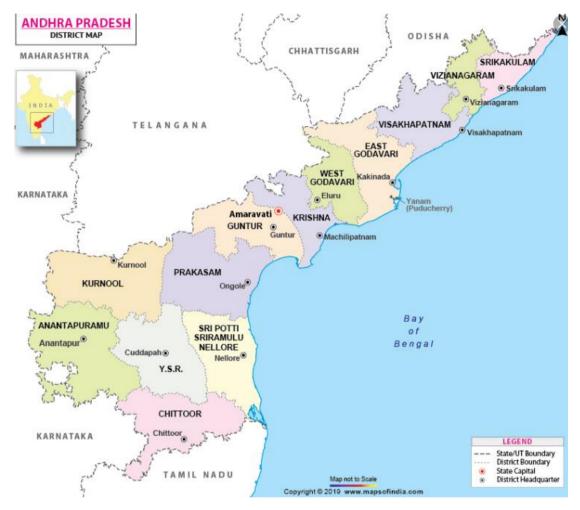


Figure 1.3: District Map of Andhra Pradesh

Source: Maps of India.com

The existing literature reports the state based small to medium enterprises as risk taking, characteristically innovative yet they are not aloof from the challenges of the misfit across existing environment, extensive competition from the established players as well as the managerial inefficiency in decision making process. The "small scale sector" in state and national perspective, has usually been defined in terms of the investment caps on the original value of the pre-installed asset base comprising the equipment, processing plant, technology and the processing machinery that enables the operations of the unit. The small-scale sector comprises the units, enterprises or the localized manufacturing capability that houses constrained approach to production as well as business management. The CII report on the industry classification underlines the natural resource driven as well as capability driven focus of the

industrial manufacturing across the small business perspective. As evident here the food processing sector requires the proactive policy-based impetus from across the state decision making mechanism whereas the small engineering (IBEF, N.d.) and other goods manufacturing is more entrepreneurial capability-based exercise.

#### 1.2 Research basis

Despite the reviewed and documented potential of small-scale sector, research regarding deviations and aspects, factors and dimensions that constrain the ability of the small-scale enterprises are non-convergent in nature. In simpler terms, the factors and dimensions shaping the industrial sickness, fails to generalize a common model or opinion that could guide the economy out of crisis. The existing studies across small scale sector in CIS states (Chouwdhary, 2012), across South African enterprises (Dragnic, 2014) and across Indian enterprises (Deshpande, 2004) point to diverse underlying forces. Hence the research basis constitutes the need to identify a common set of factors (controllable and non-controllable) that equally represent the state of affairs. The research hence regards this as vital to establish the possible linkages that exist amongst the various identified dimensions.

The research is crucial as the 'shutdown' rate or the 'sickness' rate across small scale enterprises is rising fast and most of the recent startups are even reporting failure and inability to meet the expenses. The research acknowledges that despite the focus of government bodies on boosting the startups and incentivizing the SSE sector, the survival quotient is not that healthy. Despite the economic relevance and the political sensitivity of the small scale sector based enterprises in Indian perspective, negligible research attention has been awarded to the economic viability and strategic operationalization of influences that keep the sector afloat. The policy confusion and institutional voids seem to create more confusion than the solutions. The government research categorically acknowledges the rising significance of sector's share in local employment sustenance, resource usage, local tax base enhancement as well as contribution to national exports. The research basis hence constitutes the exploration of the possible causes that are leading to reduced survival prospects across state based small scale enterprises especially in context of Andhra Pradesh perspective.

The sickness rate is high across the state bound enterprises despite the measures to restore industrial economic viability and business health. The measures like 'ease of doing business', 'fiscal boost to SSE sector', 'cheaper access to power' are being undertaken across state perspective yet ground realities project a different picture at all. The execution across state perspective or the inability to pin point the exact causes might be responsible for this state of affairs. The recent studies (IBEF, N.d.) on state of industrial health in Andhra Pradesh identifies the appropriate understanding of reasons as prerequisite for remedial action. The awkward performance of SSEs in Andhra Pradesh needs to uncover the exact reasons that are responsible for the dismal economic outcomes and threats to industrial survival in state perspective.

The proximal and distal causes of industrial sickness as addressed in this academic research are derived from across the evident literature and theoretical frameworks on the subject matter. The probable causes have the reported history of evidence across studies (Dragnic, 2014) on SSE sector in CIS states and across South African context. The reported 'industrial failure' or 'industrial sickness' is being observed as manmade rather than natural in nature and scope. The observed industrial sickness and propensity to default on payments; are ingrained in the aspects, that govern and manage the working of such enterprises. Thus the core research basis is the assessment of guiding principles or the root causes that shape the probable industrial sickness in state perspective. The research earnestly believes that remedial action can only be possible when the appropriate factors are being identified in a most effective manner. The literature calls for internal organizational inefficiencies, manager or promoter borne aspects and environment driven uncertainties as shaping and influencing the firm behavior and ability to compete. Of these common aspects across research studies, there are certain common under currents that equally influence the firm's behavior and ability to stand and face the challenges and survive the onslaught of economic and business environment.

The plethora of studies (Alom, 2016) classify the "internal organizational deficiencies" (Dragnic, 2014), inefficiencies, mismanagement or lack of coordination and promoter's own lack of interest in learning form the market; as responsible for current industrial sickness. The differences in strategy crafting, differences in resource mobilizations and allocation patterns, organizational deficiencies (Chowdhary, 2012), management inefficiencies (Tuli, 2017), managerial deficiencies in decision making

(Santana, 2017) are a part of the managerial perceptions (Gomez-Mejia, 1987). The existing literature remarks these 'organizational inefficiencies' as impacting the implementation of the business model in timely manner across the segment market. The existing studies elaborate substantially on the psychological and cognitive aspects as well as mindset approach to promoter's role in decision making and shaping the internal deficiencies and deficits.

In association, the 'external dependencies' of the small scale industrial unit (Mello, 2007) have been interpreted as non-intrinsic resource-based dependencies that are essential to run the machinery, the assets, and the installed capacity as well as seek legitimate use of the equipment. The lesser capital intensity and higher labor intensity of small scale enterprises renders them susceptible to the external credit institutions and government bodies for subsidy, aid, financing as well as money-based assistance (Krishnan, 2017) in market access as well as market infrastructure development. Hence the research basis is clear that how these aspects literally shape the phenomenon in its current contextual settings.

The research in essence seeks to assess the possible causes or the proximal and distal determinants that shape the industrial sickness and its intensity across incumbent firms in Andhra Pradesh. The causes and possible relationships as evaluated have to be borrowed from Khandwallah's framework and other theoretical paradigms as visible in research across developed economies of America and Europe. The research basis for current research is strong as the outcomes could contribute to existing knowledge by developing a contingent approach for interpretation of the forces at work. The research could add to existing knowledge by development of a hypothetical model that could equally bring together the scattered literature and make a generalizable attempt at understanding the dynamics of industrial sickness at enterprise level.

The research basis also focuses on the diverse manners in which the construct 'industrial sickness' has been operationalized. The construct has been operationalized across the documents of erstwhile Planning Commission (Dayal, 2007), as involving the aspects of the "shortage of suitable raw materials", "lack of machinery, equipment and technical assistance", "marketing hurdles and absence of producer's organized approach" and respective "paucity of affective access to short and long term finance".

The construct of "industrial sickness" has been operationalized across the documents of Reserve Bank of India, as involving the aspects of the "mismanagement", "faulty initial planning", "labor unrest", "market recession" and "infrastructural reason" (Gugloth, 2011).

The construct has been interpreted as involving the dimensions (Chouwdhary, 2012) of the "lack of market based surplus", "in-fighting", "diversion of funds by management", "loopholes in project conceptualization", "market based recession", "power cuts", "gross shortage of consistent access to required raw materials" by the Tiwari committee (Sharma, 1985) appointed by central bank, the Reserve bank of India. An initial study across the European small scale enterprises (Dragnic, 2014) classified the factors as internal and external and elaborated on the phenomenon as involving the factors of owner's (promoter's) orientation, skill and control based inefficiencies, resource supply and its consistency, infrastructural elements, dominant and enveloping demand for the produce, the pattern of capacity utilization, unit-bank relationships.

In simpler terms the definition can be summarized as:

- The phenomenon of "unit based industrial sickness" in small scale enterprise in developing economies is a "socially constructed" and "contextually determined phenomenon"
- that involves **promoter's role and responsibilities** (internal contexts involving the aspects of orientation, integrity, control, capacity utilization, commitment)
- unit's external dependencies(resource based, policy marshaling, infrastructural and credit) and the pattern of market orientation;
- that collectively impact the ability or inability of the unit to meet the expenses and face financial risks."

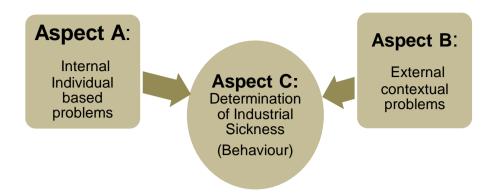


Figure 1.4: Conceptualization of Construct

The term "socially constructed" stands for the socially generated roots and origins. In case of SSI units, such social constructed reality aspects could be institutional support mechanisms, general perception of the entrepreneurship vis a vis government job, socially prevalent macro-economic conditions. The term "contextually determined" represents the aspects that are driven by contexts shaping the business decision making. Such contexts could be either internally determined or externally determined.

## 1.3 Research Questions

From the existing review of literature one can frame the following research questions such as

# What are the promoter driven factors that shape the organizational failure across small scale sector in regional context?

Organizational failure behavior as underlined comprises the problems of incentive generation as well as bounded rationality. Across the existing literature on industrial economics, agency problems surface more than principal aspects. The entrepreneur as individual agency and his subjective lack of information about appropriate decision mains should essentially figure as subject matter of academic discussion and analysis. Hence promoter or entrepreneur driven factors "Lack of Entrepreneurial Orientation", "Inappropriate Managerial Control", "Faulty Resource Planning", "Inadequate Capacity Utilization", "Lack of Occupational Commitment"; makes sense for this research study.

# What are the non-promoter driven aspects that seem to figure and shape promoter based decision making in small scale enterprises?

The promoter based decision making derives from contextual aspects that are vital in shaping the organizational survival or failure prospects across time. The perceptions of "Insufficient Factor endowments", "Policy uncertainty and governmental support", "Extent of Infrastructure based hassle", "Changes in Economy", "Credit Institutional support" do seem to interfere and impact the overall decision making of entrepreneurs as agents in organizational failure.

## 1.4 Research Objectives

- To examine the status of MSME in India and in Andhra Pradesh state
- To identify the factors that contribute (directly and indirectly) towards the small scale industrial health (survival or decay) in Andhra Pradesh
- To quantify the cross-factorial impact on organizational survival or sickness in small scale enterprises
- To analyze the relationships amongst the factors that shape survival or sickness as well as revival
- To suggest remedial turnaround strategies for recovery and organizational performance management.

### 1.5 Research Hypothesis

The set of research hypothesis have been present in this sections, they are

#### 1.5.1 Impact of promoter's internal deficiencies on unit-based closure

These set of hypothesis elaborate on the structural linkages amongst the internally determined factors "promoter's lack of entrepreneurial orientation", "faulty resource based planning", "inefficient managerial control", "entrepreneur's occupational commitment" and "improper capacity utilization". Such structural linkages seem to possess profound consequences for the interpretation of the role of the internal deficiencies in understanding the contribution towards sickness formulation across small scale industrial manufacturing units in Andhra Pradesh.

- H1 There is significant relationship between the "lack of entrepreneurial orientation" and the "failure in unit's market orientation"
- H2 There is significant relationship between the "lack of management control" and the "failure in unit's market orientation"
- H3 There is significant relationship between the promoter's "lack of occupational commitment" and the "failure in unit's market orientation"
- H4 There is significant relationship between the "inappropriate resource planning" and the "failure in unit's market orientation"
- H5 There is significant relationship between the "inadequate capacity utilization" and the "failure in unit's market orientation"

## 1.5.2 Impact of external institutional dependencies on unit based closure

These set of hypothesis elaborate on the structural linkages amongst the externally determined factors insufficient factor endowments", "infrastructural bottlenecks", "changes in economic conditions" and the "pattern of relationships with banks (stakeholders)". Such observed structural linkages seem to possess profound consequences for the interpretation of the role of the external dependencies in understanding the contribution towards sickness formulation across small scale industrial manufacturing units in Andhra Pradesh.

- H6 There is significant relationship between the "perceptions of changes in economy" and the "perceptions of policy based uncertainty"
- H7 There is significant relationship between the "policy uncertainty" and the "unit's relationships with bank"
- H8 There is significant relationship between the "perceived availability of bank credit" and the "unit's relationships with bank"
- H9 There is significant relationship between the "infrastructural hassles" and the "unit's relationships with bank"
- H10 There is significant relationship between the "lack of factor endowments" and the "unit's relationships with bank" by the promoter

## 1.5.3 Linkages between Unit's relationships with stakeholders (banks), market orientation and sickness

Another aspect revolves around the interpretation of the relationships amongst the unit's relationships with stakeholders (banks) and orientation cross customers. The structural relationships across the unit based "market orientation" and the respective development of "ability to meet expenses" are crucial in shaping the sickness prospects or safeguarding from the probability of sickness across manufacturing unit. Such structural relationships seem to possess viable consequences for the small-scale sector-based units.

- H11 There is significant relationship between the small scale unit's "perceived imbalances in unit's relationships with bankers" and the "failure in market orientation" of the small scale unit
- H12 There is significant relationship between the "unit's relationships with banks" and the "organizational failure"
- H13 There is significant relationship between the "failure in unit's market orientation" and the "inability to meet expenses" across small scale unit
- H14 There is significant relationship between the "failure in unit's market orientation" and the "organizational failure"
- H15 There is significant relationship between the "inability to meet expenses" and the "organizational failure" by the promoter

## 1.6 Linking objectives with hypothesis

The illustration below links the research objectives with the hypothesis as assumed:

Research Objective	Research Hypothesis	
To examine the status of MSME in India	NA	
and in Andhra Pradesh state		
To identify the factors that contribute	NA	
(directly and indirectly) towards the small		
scale industrial health (survival or decay)		
in Andhra Pradesh		
To quantify the cross-factorial impact on	H1 There is significant relationship between	
organizational survival or sickness in	the "lack of entrepreneurial orientation" and the	
small scale enterprises	"failure in unit's market orientation"	
sman scale enterprises	H2 There is significant relationship between	
	the "lack of management control" and the "failure	
	in unit's market orientation"	
	H3 There is significant relationship between	
	the promoter's "lack of occupational	

To analyze the relationships amongst the factors that shape survival or sickness as well as revival	commitment" and the "failure in unit's market orientation"  H4 There is significant relationship between the "inappropriate resource planning" and the "failure in unit's market orientation"  H5 There is significant relationship between the "inadequate capacity utilization" and the "failure in unit's market orientation"  H6 There is significant relationship between the "perceptions of changes in economy" and the "perceptions of policy based uncertainty"  H7 There is significant relationship between the "policy uncertainty" and the "unit's relationships with bank"  H8 There is significant relationship between the "perceived availability of bank credit" and the "unit's relationships with bank"  H9 There is significant relationship between the "infrastructural hassles" and the "unit's relationships with bank"  H10 There is significant relationship between the "lack of factor endowments" and the "unit's relationships with bank" by the promoter  H11 There is significant relationship between the small scale unit's "perceived imbalances in unit's relationships with bankers" and the "failure in market orientation" of the small scale unit  H12 There is significant relationship between the "unit's relationships with bankers" and the "failure in market orientation" and the "organizational failure"  H13 There is significant relationship between the "failure in unit's market orientation" and the "organizational failure"  H14 There is significant relationship between the "failure in unit's market orientation" and the "organizational failure"  H15 There is significant relationship between the "inability to meet expenses" and the "organizational failure"  H15 There is significant relationship between the "inability to meet expenses" and the "organizational failure"
To suggest remedial turnaround strategies for recovery and organizational	NA
performance management.	

Table 1.4: Mapping hypothesis with objectives

## 1.7 Significance of Research

The current research envisages the task of identification of the factors that contribute (directly and indirectly) towards the small scale industrial sickness in Andhra Pradesh Industry. The existing research is either nominal or non-convergent or non-sufficient to address the problems that this sector is facing amidst global pressures. A review of existing studies as evident in the literature and the national journals, the phenomenon is rampant across the districts of the state and the existing government measures have

failed to yield any substantial change in the social and economic status of the faltering industrial units.

The existing studies are either biased towards the institutional perspective or concentrate more on the financial and balance sheet based dimensions. A good host of econometric studies do explain the phenomenon yet they limit the analysis to the classification of the bankrupt and the non-bankrupt units only. Another study on manufacturing productivity in Indian perspective focused only on the larger enterprises and their respective causes of sickness. A lot of studies and earlier studies exist on this aspect of economy yet this research is significant in terms of the cross disciplinary identification of the factors that contribute towards the phenomenon.

## **Contextual Determinants**

The current research posits itself across the ideology that contextual elements define and determine the current state of affairs with regard to economic performance. The degradation of the performance and the state of sickness is not a standalone or a self-built problem yet it is widely believed to owe its existence (Dragnic, 2014) to the contexts and the dimensions that are present in the nearby environment of the firms. The internal factors primarily the promoter's decision making and the external factors primarily the surrounding environment does stimulate the instance and the prospects for the firm based sickness or revival or turnaround in stressful times.

## **Cross factorial impact**

The contributing factors never ever operate unilaterally or in a one-way manner yet they do impact and shape the phenomenon in multiple manners. The research hence seeks to quantify the cross factorial impact on organizational sickness in small scale enterprises. This is significant in the terms that cross factor impact would be evaluated and analyzed in terms of empirical basis and numerical approach. The quantification serves to facilitate the interpretation of the cross linkages in state and local as well as regional context.

## **Cross factor relationships**

In order to analyze the relationships amongst the factors that shapes sickness as well as revival, the cross factor study and interpretation is essential to uncover the relationships that exist across the lateral aspect of the phenomenon. The study is significant in the terms that the perceptions of the infrastructural hassles also impact the availability of the factor endowments. The study is also significant in the terms that the cross factor relations across unit-bank aspect and the contribution to the fit perspective would be explored.

## Suggesting remedial course of action

The significance of this research lies in arriving at some remedial courses that could rectify the problems as well as the challenges been faced by the small scale unit owners across the state of Andhra Pradesh. The study also aims at suggesting selective remedial turnaround strategies for recovery and organizational performance management. The quantification of data and empirical approach serves to facilitate the interpretation of the cross linkages in state and local as well as regional context.

## 1.8 Methodology

#### 1.8.1 Mixed Research Methods

In view of the research objectives and the hypothesis statements as well as the theoretical model as hypothesized in earlier stages, the research methodology was devised in a manner that facilitates the collection of the vital inputs from across the perceptions and opinions of the entrepreneurs spread across East Godavari, West Godavari and Krishna district of the state in focus.

The research task was undertaken to gauge, to analyze and to classify the possible factors that shape and impact the current state of unit based sickness or decline. The perceptions of the participating entrepreneurs were stressed in order to ascertain the cross factor linkages that ultimately lead to current state of failure or sickness across the small businesses and small scale industrial units across the chosen regions of East Godavari, West Godavari and Krishna districts in Indian state of Andhra Pradesh.

The possible research methodology essentially involves collection of empirical data from across the promoters and local entrepreneurs who actually own or participate in the unit based planning, business decision making and allocation of scarce economic resources. The next emphasis while selecting the data collection strategy was ability of the data to be studied for variances as well as probability of modeling the data across the hypothetical model for understanding cross factor causal relationships and linkages. The existing literature emphasizes the dual nature of the research methodology as a variance rationalization tool and as a research problem solving tool.

The "variance rationalization properties" of the research methodology; enables the achievement of the specific answers to the objectives and the hypothesis as determined in the sections above. The existing research further vindicates the research methodology as a means to achieve the solutions and answers to the research problems been identified and to evaluate the variances of the factors comprising the research problem under focus. The choice of appropriate research methodology is essential to extract the meaning from the available data. For instance, the data collected from across the entrepreneurs and small scale unit owners in Andhra Pradesh need to be made usable in the manner that justifies and supports the achievement of the research objectives and hypothesis.

The data sense making and choice of research methodology have been observed to be interlinked across the prevailing literature. Hence it becomes essential to classify the variables, accord them the due weight age and emphasis in data analysis and achieving the objectives. In view of the current research problem, the explanatory emphasis is essential to assess the cross factor based causal relationships adequately and appropriately.

In fact, the existing literature emphasizes the crucial role of the independent variables, dependent variables and the significance of the causal relationships across the variables as detrimental to the exploration of the research problem under consideration. The interpretability of the data hence is crucial for the attainment of the insights and the knowledge with regard to the lateral and hidden aspects of the factors that group together or cross impact each other in rendering the small scale unit as sick or leading to its ultimate failure.

The research based potential to investigate the unit based sickness from across the construct operationalization is in essence defines the strength of the chosen research methodology. The "problem solving emphasis" in research methodology facilitates exploration and analysis of problems with regard to the predetermined research objectives and propositions. The dominant literature on research methodology as a problem solving tool emphasizes the appropriate identification and classification of the research problem, review and summarization of respective related literature from across the global perspective, design and determination of relative perspectives, questions and propositions from across the research objectives and research gaps, design of measurement instrument or the likert based scaling of the factors, determination of an appropriate sample size and respective sample frame for the research purpose, subsequent collection of data from across the sample frame and respective analysis of the data with suitable statistical analysis techniques. As mentioned in the illustration herein, the research tasks involve the identification of literature, framing of objectives; development of measurement instrument for data collection, data based analysis with statistical tools in order to yield conclusions.

Such an approach has been observed to be beneficial in catering to the problem under lens. The research on practical insights into research process highlights the role of the research problem identification as driving the choice of research methodology. In this case the research problem identification focuses on the aspects of

- The unit based entrepreneurial (promoter based) inefficiencies as comprising the managerial or owner's perspective, as involving the planning, cognitive mindsets and the cognitive frameworks (Gomez-Mejia, 1987) with regard to business opportunity sensing and development in most potential form and context. The term "entrepreneurial inefficiencies" collectively stand for the managerial and internal inappropriate control mechanisms that are controllable yet no action is taken with regard to these controllable aspects that are widely believed to contribute towards the phenomenon of the industrial sickness across small scale units in developing economies.
- The small scale unit's (non-promoter based) external/contextual dependencies constitute the non-controllable yet manageable aspects of the unit based performance decline or revival.

• The term "unit based outcome behaviors" collectively stand for the unit based outcomes in terms of the "internal mismanagements" and "externally driven dependencies" that aim at changing the relationships with stakeholders, impact the sustainability of the unit based market orientation as well as possess consequences for unit's ability to meet day to day expenses as well as probability of failure risk.

As such the identified factors (internal and contextual) contributing to the phenomenon of small scale unit-based sickness are been sought to fulfill the research objectives. The objectives need to be achieved with the aid of the respective research design and chosen research methodology need to handle the data, develop a causal modeling of factors as well as enable the achievement of the aforesaid objectives and hypothesis in a justifiable manner. The determination and validation of cross factor impact and variances across the East Godavari, West Godavari and Krishna districts needs to be analyzed. As such the research methodology needs to consider these aspects while the research progression. The internal deficiency, contextual dependency based and outcome-based hypothesis needs to be achieved and the choice of research methodology also needs to keep into consideration the aspects while analyzing the data. The existing research publications also emphasize the research methodology and its choice as a variance rationalization measure. The research methodology hence needs to establish a credible and valid system for result generalization. The most catered aspects across the existing literature concentrates on the establishment of the internal validity of the data which is scheduled to be collected by a measurement instrument. The internal validity of the measure or the research instrument has been heavily explored across the existing studies and involves the task of establishment of the internal consistency. The notion of validity establishment often involves the ascertainment of the measurability of phenomenon. The instrument needs to be checked that whether it is measuring what is supposed to measure. The research methodology hence needs to figure out that the phenomenon should be measured adequately by the instrument in question.

The related aspect of "construct validity" too should be addressed. The choice of research methodology should answer the aspects which could impact the overall construct validity of factors as observed across the data hence collected. The construct

validity in research is essential as it judges that whether the construct is being adequately quantified or not. In simpler terms the construct validity revolves around the ascertainment of a factor and the sub scale items as measuring what it should measure. In this case, the various constituent factors ("promoter's entrepreneurial orientation", "faulty resource based planning", "inefficient managerial control", and "improper capacity utilization", "insufficient factor endowments", "infrastructural bottlenecks", "changes in economic conditions" and the "pattern of relationships with banks or stakeholders").

The chosen research methodology also need to address the problem of the "content validity" as the measurement instrument should measure and offer the complete coverage of the sub scale item based questions that are vital from the point of view of research. The research methodology is essentially responsible for the choice of a tool and data collection instrument so that the effective quantification of the phenomenon could occur. In similar stance, the establishment of the reliability of the research needs to be addressed by the choice of the research methodology. The measurement instrument-based reliability is the extent to which an instrument under focus consistently measures what it is sought for measuring. Finally, the chosen research methodology needs to ensure that the statistical tools and applications could be undertaken across the data in order to analyze the variances as well as reach some meaningful conclusions with regard to the hypothesized research objectives, hypothesis and assumed propositions altogether.

## 1.8.2 Sample Frame

The units located across the three chosen districts of Andhra Pradesh classifies as the sample for the current research. Such units which are small business oriented and owned by entrepreneurs; would be examined for research and interpretation. Such units were identified on the basis of lists and publications and handouts procured from the locally based district industry commissioner's list on registered MSME and the publications with regard to executed "entrepreneur memoranda". The industrial units were also identified on the basis of the local industry associations and small unit or manufacturer associations. From the lists procured from various sources, a list of 300 viable and differentially placed promoters and diverse sector located units were identified.

Across the list procured from the local chapters of the DIC, MSME, each second unit and its entrepreneur (promoter) was shortlisted for consideration for the research purpose and analysis in statistical terms. The research relied on the sample frame as closely related to its requisite sample population. The research observed the principles of the research method researchers in devising the sample frame selection. The sample frame for the current research comprises the list of elements or the small scale units or promoter owned enterprises that define and undermine the sample determination. The current research thus refers to sample frame as involving the small scale units in East Godavari, West Godavari and Krishna district based industrial clusters that were accessible by road as well as identifiable by associations or similar registered name or entity. The sample frame comprises the registered small scale unit that have executed and institutionalized the entrepreneur memoranda with MSME as nodal agency. The care was taken that the heterogeneity and representativeness of the sample is encouraged and sustained across the entire process of identification and analysis for research perspective. The judgmental sampling was undertaken to reach out to respondents across chosen districts.

Table 1.5: Characteristics of Respondents to this study

District	Number of Respondents	Major Type
East Godavari	100	Rice Milling, Rice Oil based units
West Godavari	100	Packaging based units
Krishna	100	Agro based

### 1.8.3 Variables and their measurement

The variables for the study included the three broader categories of aspects.

**Aspect A-Promoter Driven Factors:** The small scale firm based "**inefficiencies**" have been measured with aid of the factors "promoter's entrepreneurial orientation", "faulty resource based planning", "inefficient managerial control", and "improper capacity utilization".

Aspect B-Non Promoter Driven Factors: The unit's "external dependencies" were measured with aid of the contributing factors "insufficient factor endowments", "infrastructural bottlenecks", "changes in economic conditions" and the "pattern of relationships with banks (stakeholders)".

**Aspect C-Outcomes:** The unit's "outcomes" were measured with aid of the contributing factors "imbalance across relationships with stakeholders", "lack of market orientation of unit", "decrease in ability of unit to meet expenses" and the "perceived failure/sickness risk".

Table 1.6: Scale sources and description

	Latent Construct	Explanation	Number of Factors
PROMOTE R DRIVEN AND INTERNAL	Perceived Entrepreneurial Orientation Perceived Resource Planning Perceived Managerial Control Perceived capacity utilization Perceived Occupational commitment	These factors elaborate on the internally driven and entrepreneur managed inefficiencies and inabilities	5
NON PROMOT ER DRIVEN	Perceived Factor Endowments Perceived infrastructure hassles Perceived Policy Uncertainty Perceived access to credit Perceived changes in Economy	These factors focus on the external institutional dependencies	5
OUTCOMES	Imbalance in unit-bank relationships Failure in market orientation Inability to meet expenses Sickness threat	These factors point towards the outcomes in form of unit-bank relationships, unit's failure in achieving a market orientation, unit's ability to meet the expenses and unit's sickness threat	4
Factor		Source	
	Entrepreneurial Orientation Resource planning	Covin and Wales,2012 Spanos,2001	
	ur's Occupational Expertise ur's /Managerial control	Hirchi Self-Devised	
Capacity U	tilization	Self-Devised	
	hanges in market and economy	Narver Slater	
Perceived Policy Uncertainty Veerappan, 2016			
Market Ori	Market Orientation Narver Slater		

### 1.8.4 Reason behind choice of State and these districts

In the state of Andhra Pradesh, a significant number of small scale industries of different types are located and as per literature review no recent study has been conducted on this topic. At present there are 13 Districts in Andhra Pradesh. Out of these three districts are selected for the study. The state and the districts for the study have been chosen on the basis of magnitude of the closure of units as visible in data available and convenience to reach the respondents for collecting primary data. The chosen districts figure as agriculture intensive and exhibit large number of registered entities.

## 1.8.5 Evaluation of Promoter's perceptions with use of attributions

The entrepreneur's perceptions and their appropriate assessment; is vital to the research. The evident sickness and prospective revival and sustenance rely on the entrepreneur's perceptions as evident and self-assessed across the small scale units in the chosen geographical region of Andhra Pradesh. The existing literature elaborates on the diverse aspects of the entrepreneurial motivations as guiding the small scale operations and working. The existing studies have elaborated on the entrepreneurial motivation and integrity of promoter as impacting the prospects for unit based survival or sickness.

The "entrepreneur's attribution" of the phenomenon was discussed causally to create the background and motivate the promoters to yield the attribution of their respective success and failure with regard to current state of affairs at their respective place of work. The task of profiling the entrepreneur's attributions is a hard task and ensuring their receptivity was accomplished with use of aspects like the question of the description of the entrepreneur as either the first time venture establishment, pull entrepreneur, push entrepreneur, family entrepreneur. The question was presented with regard to the motivation and profiled the attributes as awareness of gaps, incentive structure and state support, boom in industry, notable to exercise other options. The other attributes of profiling were educational qualification prior experience and mentor.

The small scale industrial units and their appropriate profiling were essential for the research to be fruitful. The research profiled the specific attributes of small scale unit as per the variables mentioned across the existing literature. The most prominent aspects involved the districts wide profiling, type of business activity, number of employees, unit's location with regard to cluster, unit's age, unit's local support, unit based capital intensity. The research relied on the profiling attributes of entrepreneur's motivations, entrepreneur's formal education, owner's environmental experience, owner's age, owner's training, and owner's learning orientation; in order to achieve an appropriate profiling of the social and demographic aspects of the promoters assumed for the current study.

The current academic research relied on the primary source of data. The secondary sources of data like the research papers, academic studies, published papers on factor based analysis of the problem, the reports and annual reports of the department of industry, small scale industry, and finance and skill development. The primary data was collected with aid of the likert based measurement instrument which was assumed to operationalize the constructs. The secondary data was collected from across the hard and published reports as well as the soft copies in pdf and html formats as well.

The research was conducted across three select districts of Andhra Pradesh in Southern India from time phase of January 2015 to December 2017. The period envisioned multiple challenges in data collection and seeking a valid data response. The research encountered the problems of constraints of time and space. The research was conceptualized and conducted over the limited geography of "crisis" hit Andhra Pradesh and even across the state territory it was kept constrained to the districts of East Godavari, West Godavari and Krishna. The research was kept constrained to the formally registered small scale units that were registered across the MSME and the non-registered small scale enterprises were deliberately kept out of research focus. The research emphasized the small scale units and their peculiar problems.

#### 1.8.6 Research methods and Research Objectives

The choice of research tools was influenced by the choice of the research objectives as identified in sections above in this chapter. The research method choice vis a vis the assumed research objective has been summarized here under:

Table 1.7: Research tools choice vis a vis objectives

Research Objective	Method Used
To examine the status of MSME in India and in Andhra Pradesh state	CAGR analysis
To identify the factors that contribute (directly and indirectly) towards the small	Literature Review
scale industrial health(survival or decay) in Andhra Pradesh Industry	Measurement Instrument
To quantify the cross-factorial impact on organizational survival or sickness in	Factor Analysis
small scale enterprises	
To analyze the relationships amongst the factors that shape survival or sickness	Factor Analysis, AMOS
as well as revival	modeling
To suggest remedial turnaround strategies for recovery and organizational	Factor variance & Factor
performance management	analysis. Regression
	Modeling

### 1.8.7 Tools for analysis

The purpose is to reduce the overall set of sub scale items to a composite set of items that truly represent the phenomenon. In course of exploratory factor analysis, the variable with similar characteristics gets clubbed together. The "exploratory factor analysis" focuses on the identification and segregation of the sub scale items that represents the phenomenon in variable manner. The research leveraged the edge of the SPSS Statistical Software and AMOS data modeling software for the conduct of statistical data analysis. The SPSS enables the analysis of variances as reported across three districts. The variance examination based exploratory factor analysis was facilitated by SPSS. The SPSS enabled the assessment of reliability (CronBach Alpha Test) and AMOS was utilized for modeling the relationships and validation of hypothesis statements.

The rationale for insistence on exploratory factor analysis stems from the observation that it could be a reliable and trusted method for data reduction as well as the data-based summarization of the outcomes. The existing research on the usage of the exploratory factor analysis across likert based measurement instruments reveal the incidence of the need for data reduction and concise summarization of the vast data collected from across the primary data collection means. The existing research vindicates the preference for data summarization for identification and illustration of the lateral dimensions and the aspects of the data which ultimately guide the AMOS based data based modeling.

The refinement of the scale elements is thus essential for the modeling of the data. The research relies on the principal component analysis for identification and segregation of the factors that encourages the parsimonious identification of the constituent factors across the study perspective. Further the study incorporates the oblimin rotation as iteration method as it is widely regarded as facilitating the comparatively easier selection and identification of the loading and correlated as well as the non-correlating factors.

The principal component analysis was performed across the theoretical constructs of "internal efficiencies/inefficiencies", "external support perceptions" and the "outcomes" to examine the probability of the loading of the representative sub scale

items across the constituent factors. The measured variables were examined with regard to the loading into the single factor. The measured variables were intercorrelated to yield the respective representative factors. The inter correlation ability of the survey data was assessed with aid of the Bartlett's test of sphericity which established the correlation matrix as the identity matrix. The significant value generation in this test points towards the prevalence of significant correlation-based relationships across the majority of the assumed variables. In continuity, the Kaiser Meyer Olkin test measures the overall sampling adequacy to ascertain the sample adequacy and sufficiency. The test yielded a measure greater than 0.5 pointing towards the existence of the sample-based adequacy prior to consideration of the extensive exploratory factor analysis. The next stage involved the assessment of the pattern of loadings and the reported low factor loadings were deleted for further consideration. The variance examination was achieved with principal component analysis with oblimin rotation.

The AMOS software was leveraged to analyze and understand the causal and cross factor relationships across variables (factors) that are assumed to be antecedents. The subsequent use of this technique enables interpretation of the impact across and amongst the factors, that otherwise would have been non-quantifiable. The aforesaid methodology was observed to be useful for verification of scale-based elements, lead to establishing the validity across the sub scale item exhibiting factor loadings across the prior exploratory factor analysis. The technique enabled the understanding and interpretation of the causal linkages across internal and external scale items and across the outcomes-based scale elements. The aforesaid technique enabled the mapping of relations with aid of confirmatory factor analysis.

## 1.8.7.1 Regression Modeling

The logic behind usages of regression analysis as research and data analysis tool lies in the statistical estimation of cross factor impact on and across multiple sets of variables. The essence of this research on SSI sector based enterprises in Andhra Pradesh was to examine the statistical impact of internal inefficiencies, external dependencies on the firm based failure in general. The regression modeling facilitates the ascertainment of the impact in empirical terms and establishes the composite impact of independent factors on the dependent factors. The regression modeling is to

be worked amongst the factors as identified and classified across exploratory and confirmatory factor analysis across SPSS and AMOS suites. The linear as well as logistic modeling techniques were harnessed to assess sickness probability.

## 1.9 Chapter Outline

The research is divided into seven chapters. The first chapter constitutes the basic introduction to the research thesis. The second chapter emphasizes the exploration of literature review and theoretical and conceptual framework about research proposition. The next chapter concentrates on the exploration of SSEs in India and state perspective. The fourth chapter deals with profiles of entrepreneurs, enterprises and selected regions for study. The consecutive chapter explores the dimensional validity assessment with factor analysis of the scale based measures and elaborates on the discussion of the reliability assessment. The sixth chapter explores the hypothesis testing of examining promoter and non-promoter influences. The seventh chapter presents the conclusion and ideas for further research.

## 2 Industrial Sickness: Literature Review

#### 2.1 Introduction

The chapter contains the extensive literature with regard to the factors contributing to the construct of "sickness in small scale units" with convergent focus on the contributing aspects (factors) towards the phenomenon of the prevalent industrial decline/sickness/ organizational decline across the small scale enterprises. The chapter extends the theoretical framework as observed across global perspective to small scale enterprises in Andhra Pradesh state in India. The chapter explores the various aspects of the internal aspects as well as the external dependencies that drives the occurrence and persistence of the sickness in Indian perspective. The internal deficiencies and external dependencies of the small business entities matter as they are been observed as detrimental to overall sustenance and consistency of the revenue generation across the developing economy perspective.

## 2.2 Concept of Firm (micro level) and Industry

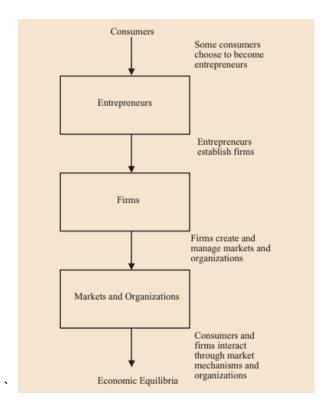
The firm in economic terminology has widely been interpreted as a need satisfying instrument or mechanisms or an institution that seeks to fulfill society's interests and economic needs. Such a firm has widely been recognized as organizing the economy, carrying out the significant size of economic actions, seems to shape the market as well as is widely regulated by state authorities and establishments across the history. The review of literature regards the firm as intrinsic to social economic organization and as generating consumer satisfaction with economic goods and services. Coase's conceptualization of "firm" (Chouwdhary, 2012) regards the firm as a technical unit that transforms inputs into outputs. Machlup's conceptualization of firm (Crutzen, 2010) as a unit that synchronizes the production and cost functions with market.

Hodgson's conceptualization (Autio K. S., 2014) of firm centers on the notion of firm as an institutional unit that possesses identity, internal governance structures, control mechanisms and external boundaries. Langlois (Ahmad, 2009) addresses the problem of firm (Carree, n.d.) as involving the "technology of production" and "organizational structure" that seems to direct the production. Kantarelis (Chopade, 2013)

acknowledges the core roles of the firms (Farrokh, 2016) as supporting the conversion of the consumers into entrepreneurs and thus boosting the creation of factors markets.

The microeconomic perspective (Spulber, 2009) revealed the incidence of the entrepreneurship and firm creation as fostering the creation and management of markets and organizations for conduct of institutionalized economic flows and exchanges. This perspective reflects well across the interpretation of entrepreneurial role in form of firm and organization across economic matrix. The exhibited similarity of products and similarity of processes has widely been regarded as basis for industry organization and classification in economic perspective.

Hence this academic research regards the entrepreneurs as essential for the creation of markets, origin of organizations as well as consumers as interacting with entrepreneurs through the markets as economic institutions. The firms as evident in literature, relies and derives from the actions and perceptions of individual consumers, social capital, their conduct of market-based transactions through market mechanisms, provide for factors of production as well as support economic production.



Source: (Spulber, 2009)

## 2.2.1 Theories of firm under perfect and imperfect markets

The small-scale sector-based firms under market conditions entail a larger and contrastive set of ideas and ideologies. Ever since the renewal of research focus on "organizations and firms" as subject of study; the research interest has transformed from earlier notions of Taylorism (Horsthuis, 2012) and Weberism (Nadkarni, 2008) to most modern evolutionary economics and network approaches. The theories of firm under perfect and imperfect market conditions seem to reconcile the fact that markets are changing and firm based response and strategizing is also transforming along with. Firms thrive and rely on resources that are under public and private ownership across economic system. A study (Carree, n.d.) observed that despite the market mechanism (Combe, 2010) as playing a decisive role in allocation of resources, the markets as institutions seem to fail and firm need to exist to direct and control the economic activities. The study further elaborated that firms seem to be obvious response towards the incident high cost of accessing and using the markets (for factors). In his legendary article "the nature of firm" (Crutzen, 2010) has remarked about the role of exchange costs (Calvo, 2010) that play a crucial role in firm based value creation, determination and leverage of property rights as well as need for management of ties (contracts) that seem to exist across suppliers, managers, owners of factors of production, employees and other stakeholders. As such firm behavior has always been explored as a viable and sustainable means of achieving a business and economic goal when price system seems to fail to ensure access. In essence, firms thrive on non-market modes and means for allocation of resources and action. The "quality of management" within firm is observed as the most potential cause that leads to substantial differences in resource mobilization, resource allocation and resource utilization, firm based productivity, performance and realization of economic goals across firms in intra-industry perspective. In association, the risk bearing by entrepreneurs has been observed as bearing authority over employees across organizational paradigm. Firms are believed to economize on costs across hierarchic control rather than in market perspectives. Managerial Activities and Entrepreneurial vision and leadership would always remain important shaping the decision making, structuring of resource flows and knowledge creation in firms. Firms essentially rely on collaborative activities and derive from the incentives and authority across formal and informal mechanisms of organizing. The notion of "bounded rationality" hence

has its roots in managerial cognitions, managerial perceptions and assessment of the situations in organizational decision making. The research literature on firm evolution emphasizes the nature and boundaries of the firm as involving the aspects of authoritative relationships development across economic ecosystem in order to facilitate mobilization and allocation of resources in timely and phased manner. The review of existing literature (Fernado, 2014) on "organizational economics" reveal the focus on organizational capabilities in form of knowledge, information and expertise as well as skills that are deemed essential to cope up with uncertainties and equip the firms to leverage and mobilize the resource better than others and seek market. Organizational holding of specific assets and potentials could enable the firm to compete sustainably and consistently outshine the competitors. The role of disbursed information has also been largely emphasized across existing literature with regard to firm based decision making in particular. The theories reflect on the ethos of firm based usage of information and knowledge for tapping into decision making inputs across uncertain business environments. A review of literature reveals the incidence of transition from internal focus to external focus with regard to firm based propositions.

#### 2.2.2 Behavior of firm

"Behavior of firm" (Garicano, 2015) needs to ideally aim at sorting the incentive problems (when the ingredient agents do not wish to act in firm based interests) as well as bounded rationality problems (crucial agents do not have the essential information to act). A remarkable study on the "behavior of failed organizations" deployed the organizational economics to reflect on the causes and consequences of economic failure. The study based outcomes revealed that small scale enterprises fail to secure economic sustenance as they suffer from mis-allocation of authority, face short-termism, engage in inertia as well as fail to articulate the organizational interests in best possible manner. Firm as economizer and firm as strategiser of economic resources fulfills its objectives till the point the internal constituent entrepreneur, promoter or the manager's act in organizational interests. The biased or vested connotation of "organizational interests" (Spulber, 2009) often lead to failure in sustenance and competitiveness in short as well as long term propositions. The information based asymmetries and promoter based lack of bounded rationality

figures as the core aspect that seems to drive the organization based failure behavior. The firm based tendency to economize and rationalize transaction costs; seem to falter when the articulation of corporate ideologies, missions, goals and action points are missing or vague in name and context. In small scale sector based firms, the family control or promoter based control over management often leads to such dismal outcomes that identify with organizational failure behavior proportions. The existing literature on organizational failure behavior attributes more weightage to incentive problems and problems of bounded rationality as such.

#### 2.2.3 Entrepreneur as agency in shaping firm behavior

Entrepreneurial quality and regional economic development finds a comparative mention across the literature on subject matter. Entrepreneur as an agency in shaping firm behavior has long remained a matter of extensive debate and analysis. Rational perspectives identify three broad roles of objective efficiency, bounded rationality and aiming at achieving fit. A host of academic studies (Alom, 2016) link the "entrepreneur" as vital for "organizational" survival or failure in business terms. A study (Alom, 2016) across Malaysia on microenterprises regarded the "entrepreneur" as a vital "contextual" factor that seem to shape the extent to which the SSI units can or fail to contribute towards the realization of national economic goals. Another study (De-Mello, 2007) identified and dispositional antecedents "internally determined" and the "externally" driven "contextual" elements. The "ability" of the enterprise to contribute towards the economy (Farrokh, 2016), local level job creation and employment generation across the developed and developing economies; is more socially determined and contextually driven. The "level of sophistication" of economy at national and state level (Altenberg, 2011), regional and national endowment of natural resources and critical inputs, location, history of region as well as general capabilities and development orientations of the political actors. The existing literature elaborates on the constraints that inhibit the tendency of the small-scale firm to exhibit consistent performance. The external constraints (Conner, 1991) have been identified as comprising the entrepreneur's knowledge of the demand conditions relevant to product being manufactured, public policy and support from the institutions as well as the competitor actions and their interpretation. The internal contextual constraints have been classified as "entrepreneurial characteristics and

capabilities". Such constraints (Hawkins, 1993) often lead to industrial sickness as they influence the firm's abilities to combine the inputs (neoclassical perfect competition perspective), ability of the enterprise to develop new ways of competing (as exemplified in Schumpeter perspective across British economic literature), ability of the firm to seek production and respective distribution driven efficiencies (as exemplified in Chicago perspective across American economic literature).

## 2.3 Organizational decline and failure in Small Scale Sector

The 'firm based failure' and 'decline in organizational ability' remains the most researched aspect in academic literature. The literature on 'business/firm failure' seeks to interpret the causes (internal and external) and dynamic processes that often lead to failure in organizational ability to deliver, to sustain and achieve economic viability. Some of the most prominent frameworks (static as well as dynamic perspectives) are summarized here under:

Framework **Interpretation** The influences are central in terms of controllability by firm based Khandwalla Framework management. The controllability has been explored as internal or external in nature and context Khelil Smida Framework The framework concentrates on internal and external causes behind firm based inability to stay afloat The framework focuses on individual deficiencies as central to Oogachi Framework survival and sustenance The framework relies on contingent and contextual influences Contextual Perspectives from external environment as shaping organizational health Resource based notions The framework emphasizes the role of strategic resources in venture survival The notion captures the role of entrepreneurial killer instinct in Entrepreneurial motivation

making the enterprise survive and create value

Table 2.1: Amalgam of diverse frameworks

#### 2.3.1 Khandwalla perspective

The perspective revolves around the categorization of the influences in terms of controllability by firm based management. The controllability has been explored as internal or external in nature and context. Khandwalla framework calls for linkages between managerial thinking, action and decision making and their perceptions of environment. The theoretical framework (Khandwalla, 1981) identifies the internal organizational aspects like the poor project management, poor quality of top management, extensive bureaucratization and organizational inertia as linked with

poor SSI performance in general. The framework identifies the external aspects as industry specific factors(industry structure, changes in industry demand, recession, pattern of competition), financial institution related factors(extent of credit extension, corruption, options for financing), and government related factors(general economic stability, extent of continuity of policies across change of governments, tax structure, general law and order, provision of essential infrastructure facilities). The framework calls for consideration of internal controllable factors along with non-controllable external and contextual aspects; while interpreting SME based industrial sickness.

## 2.3.2 Khelil Smida framework: Defining sickness as entrepreneur's selfdeception, destruction of resources, coping abilities

Khelil and Smida's framework explores the intricacies of the business failure and organizational sickness with the aid of three distinct and characteristic cognitive aspects of organizational identity. The framework (Khelill, 2016) revolves around the deterministic perceptive, resource based approach or the voluntarist perspective and the goal achievement gap theory. The first dimension seems to interpret and classify the particular contexts that lead to the understanding of the reasons behind the failure of the small scale units in developing economies. The environmental forces and the ability or inability of the incumbent unit (small business enterprise) to adjust and adapt often leads to a remarkable failure in the capability and the ability to cope up with the pressures of the environment driven demand and supply aspects. The associated second dimension revolves around the supremacy and the essence of the financial and non-financial resources (Khelilll, 2015) in the sickness based state of affairs. The serious lack of accumulations of social, financial and human capital could be the most potent reason for organizational decline and inability to face the competition across the market contours. The related third dimension comprises the aspect of the entrepreneur himself. Entrepreneur's own sense making abilities, perceptions of the orientation, commitment and sense of dedication and integrity seems to drive the sense of confidence or leads to deception regarding the state of affairs. The most of reported business exit were observed to be an outcome of either the entrepreneur's self-deception, or the exit on account of destruction of the existing resources (lack of resource based surplus) or on account of marginal survival and

coping abilities. The three dimensions comprise the pillars on which the sickness as well as revival is dependent for resource support.

The Khelil's approach hence incorporates the virtues of the determinist approach, the voluntarist approach and the emotive approach in enhancing the understanding of the phenomenon of the organizational sickness across the small to medium enterprises that are more fragile to environmental pressures than the larger enterprises.

Failure approach	Determinist approach	Voluntarist approach	Emotive approach
Theoretical foundation	Population ecology of organizations theory	Resource-based view	Discrepancy theory
Questions	Why do some entrepreneurs fail despite	Why do some entrepreneurs fail despite	Why do some entrepreneurs fail
	the fact that they possess and control rich	having substantial opportunities to develop	despite their skills and opportunities
	resources?	their businesses?	offered in the context of creation?
Hypothesis	Environmental factors determine the	Success or failure depends heavily on the new	Success or failure depends on the
	survival or disappearance of a new venture	venture's available and controlled resources	entrepreneur's motivation and determination
Independent variables	Environmental factors	Lack of resources	Lack of determination and motivation
Dependent variables	Exit of firms from the market: the new venture fails to surpass environmental barriers	Resource destruction and economic failure: resources are destroyed and the financial position of the new venture is degraded	The entrepreneurs disappointment: the entrepreneurs do not meet their initial expectations
Level of analysis	Environmental level	Firm level	Individual level

Figure 2.1: Constitutive dimensions of small scale unit failure and sickness

The Khelil's framework categorizes the "failure" or the "industrial sickness" as either environmentally determined (determinist) or as driven by lack of resources (voluntarist) or as entrepreneur's self-determined discrepancy (emotive). The framework hence attributes the failure to promoter's own sense making and perceptions of self-indulgence as well as cautious action taking with regard to policy uncertainty, factor availability and infrastructure access. In simpler terms this is equivalent to observing that industrial sickness can be controlled and that precautionary action in time can save the unit from facing distress.

#### 2.3.3 Oogachi framework: Defining sickness as owner's perceptions

The Oogachi framework pertains to the non-financial and the financial causes of the bankruptcy across four types of small business units namely the unsuccessful startups, across the ambitious growth companies, across the dazzled growth companies and across the apathetic established companies and enterprises. The study (Ooghe B., 1995) classified and concentrated on the prime antecedents that contribute variably towards the process of financial and non-financial failure. The model as proposed establishes the linkages across the owner's perceptions of "immediate environment", "perceptions of general business environment", "entrepreneur's management",

"perceptions of corporate policy framework" as shaping the small scale unit's characteristics and finally influencing the prospects for failure or revival across the small business scenario. This is equivalent to saying that financial resources are central to organizational survival and sustenance.

## 2.3.4 Contextual perspectives approach: Defining sickness as contextually determined

The agency notions (Duh, 2010) are assumed to be critical in shaping the onset of failure or unit based sickness. The research and review of literature identifies the manager or the owner as the most potent agency with regard to small scale enterprises as the board or governance mechanisms are nearly absent or negligible in such a case. The skills (of the entrepreneur) do dominate the discussions with regard to sickness and revival strategy development (Lampadarios, 2016). The recent publications across the international journals reveal an ongoing debate on the form and context as well as role and position of entrepreneur as an agency factor in unit based sickness or survival determination. The theoretical preview interprets the phenomenon as involving Ahl's contextual conditioning perspective. A study (Lampadarios, 2016) across the 118 owners and managers across the British small scale sector based enterprises in the chemical distribution industry revealed the incidence of the impact of the owner's perceptions with regard to skills about managing the regulatory compliance, about skills with regard to entrepreneurship development and with regard to skills regarding the customer relationship management. The study further revealed the impact of the owner's prior and previous work experience, management education as well as the human capital in defining the success or failure of the aforesaid small business based enterprise.

A study (Porto, 2017) across Brazilian steel market based enterprises pointed towards the incidence of the mismatch and significant gap across the owner's perceptions and the business environment based realities thus leading to obvious failure of the units on consistent basis. The "owner" as agency factor (Kalamani, 2006) possesses a lot of weight; in the determination of the survival and sickness revival prospects (Ellis, 2008) in and across the working of the unit. The study further attributed a lot of relevance of the skills and their requisite and timely adaptation to the realities and the

requirements of the market and the environment. The skill sets (Horsthuis, 2012) as agency determinants figure a lot in the available literature across the journals and studies focusing on the survival and revival exercises. Another study (Kessler, 2012) observed the incidence of the dominant and preliminary impact of the personal factors (socio-demographics, personality), resource and environment related factors (human capital, financial capital, social capital involving the social and business networks) and the founding process related factors(organizational effort, fulfillment of expectations, failure considerations and startup probability) as impacting the instances of the founding success and the prospects for the new venture survival. The locally derived "contextual" factors (Farrokh, 2016) like the governance structures and government support mechanisms and institutions, environmental dynamics and turbulence as well as the complexity do impact the overall scope and pattern of growth of the SMEs and especially the under financed and poorly financed firms and manufacturing enterprise in the developing world. These locally prevalent contexts matter as they have a long history of significant impact and influence on the structural, behavioral and the contextual growth as well as survival and respective instances of sickness of the small scale based industrial manufacturing units and enterprises.

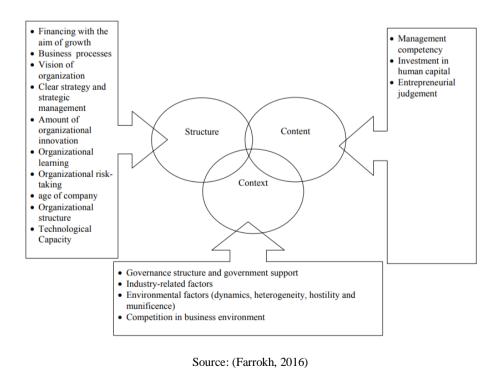


Figure 2.2: Summarizing the "Contextual" Influences

## 2.3.5 Resource based view: Defining sickness as resource variable

A host of studies regard the phenomenon of industrial sickness as purely driven by resource contingencies as well as resource inadequacies. The resource based perspectives (Runyan, 2007) regard the unit based functioning as related with the use and allocation of the resources and the decisions with regard to resource optimization. The resource perspective enshrines in the notion of the resources as the leverage point for the attainment of unit based competitive advantage (Bridoux, n.d.) as well as unit based market performance (Chinomona, 2013) across turbulent business environment. The decision making across the small business units has been conceptualized as involving the aspects of the resource based planning, mobilization, access development, allocation and optimum usage across the existing installed plant based capacity as well as consistency of availability of such key resources and inputs. The cash and liquid monetary (Dragnic, 2014) resources matter as they lubricate the working of the assets as well as the flow of the goods from raw material acquisition to final delivery across the consumer's end. The decision making across small business units hence revolves around the promoter's sense making abilities and the expertise to put the resources to most effective usage patterns across the unit based installed assets. The resource based perspective (Rangone, 1999) advocates the organizational capability viewpoint with regard to the small firm based abilities (Rangone, 1999) to decide and embark upon an appropriate course of action. The organizational capability is widely regarded as the basis for the unit's potential to compete sustainably across the market platform. Along with appropriate access (Dragnic, 2014) to economic resources and factors of production, the usage depends on the managerial (promoter's) cognitive mindsets (Chinomona, 2013), planning and the respective orientation in business life. The existing literature (Rasli) and studies on the firm decision making in turbulent business environments focus immensely on the capabilities, efficiencies (Rangone, 1999) and competencies perspective of decision making and strategy execution. The firm based consistent accumulation of "hard to imitate" resources and factors of production and the respective interconnectedness of asset stocks; has been observed as leading to a state of consistency in competitiveness and hence the increase in the survival quotient.

# 2.3.6 Entrepreneurial motivation: Defining sickness as promoter determined (individual driven)

The entrepreneur himself and his sense of decision making and assessment of the environment, internal resources and adaptability; has been observed to influence the prospects for the survival, revival as well as preventing the state of industrial sickness. The decision making in small scale units in developing economies (Gibcus, 2009) is been observed to be excluded from the reality and real time assessment of the ground realities on account of promoter's (owner's) preset mindsets and cognitive decision making frameworks. The resource matter (Dragnic, 2014) as focus of attention across entrepreneur's aspirations, motivations and mindset has attracted immense research attention. The prevalent organizational forms (James, 1999) of nascent and indigenous structuring of the decision making institutions has been observed to be widely shaped by the entrepreneur's native intentions and capabilities. The entrepreneur's native skills, planning and orientation as well as dynamic capabilities as center of attention (Elbana, 2007) across the literature elucidating on the role and the significance of the promoter (entrepreneur) in determining and recovering from the state of the sickness. The upper echelons perspective (Farrokh, 2016) also regards the entrepreneurial role as substantially significant in shaping the overall aspirations and endeavors. The process of sense making (Sharifi, 2009) by promoters in small firms is rather obtuse and non-convergent and negligible convergent research exists with regard to Indian geography as well as the state based developing economic institutions. The review of exiting literature points to subst6natial role of 'entrepreneur' as an agency shaping the state of affairs in SME unit based functioning.

## 2.4 Studies on "Entrepreneur's role in "Organizational failure"

#### 2.4.1 Linking Small business owners and inclination for planning

The small business owners and promoters have an observed and reported history of non-indulgence in the strategic planning with regard to the performance management, competitiveness and market based orientation sustenance. The studies highlight the role of owner's own proactiveness, risk taking capabilities, innovativeness and planning inclination as helpful in managing the unit based survival. The sections

below explore the role of models and business planning in deciding the survival of SME unit.

## 2.4.2 Strategy dynamics models

The promoter has been envisioned as owing an extensive role in shaping the unit based strategy dynamics in small firms decide the consistency, the growth as well as survival prospects across the small business enterprise. The term "strategy dynamics" essentially attributes to the patterns and scope of the dynamics of strategy drafting and execution as shaped by the promoter's (owner's) sense making with regard to existing environmental awareness and effective decision making. The small scale unit's strategic aspects and dynamics are influenced by the manner in which the promoter interprets the environment, forecasts the market based demand, develops strategies with regard to mobilization of the factor endowments, embeds the unit across existing supply chains as well as perceives the dependence and reliance on the external suppliers and channel partners across the product based value chain in totality. The aspect of unit derived strategy dynamics have been observed to encompass the aspects of the extent to which the unit develops market based orientation (Elbana, 2007) and positions itself across the market place. Wiklund's model of small business growth elaborates on the possible antecedents that shape the small firm growth in context of developing countries. As per Wiklund's framework, attitudes, entrepreneurial resources, firm resources, network resources, industry of operations, individual's selfdynamism does shape the entrepreneurial orientation which in turn influences the small firm growth perspective. The study regarded the subsidiary, firm age, hostility and heterogeneity as the controlling variables.

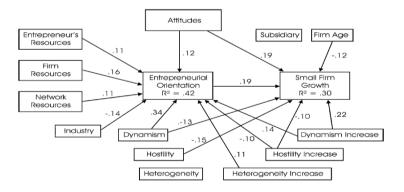


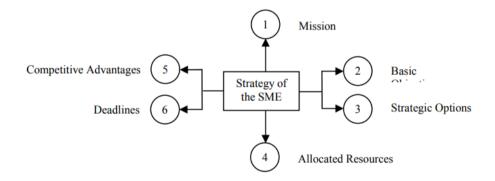
Figure 2.3: Antecedents to small business survival

Source: (Wiklund, 2009)

# 2.4.3 Competitive Advantage: Promoter's ways to acquire it with resources and decision making

The Reserve Bank of India's "internal resource papers" documents the process and regards the firm based acquisition of strategic resources as vital for competitiveness. The RBI's paper classifies the internal factors as involving the aspects of "resource non-duplication", "wrong selection of project site", "improper planning with regard to the market offering, product mix and product line and service mix", "negligent material management", "irrational control over input and other business costs", "noncompetitive pricing methodology", "presence of outdated machinery and processing technology".

The RBI research classifies the external dimensions as involving the "uncontrollable decline in market based demand", "irregularities or non-availability of the raw material", "power shortages", "government policies" and "competition". The construct has been interpreted as involving the dimensions of the "lack of market based surplus", "in-fighting", "diversion of funds by management", "loopholes in project conceptualization", " market based recession", "power cuts", "gross shortage of consistent access to required raw materials" by the Tiwari committee (Sharma, 1985) appointed by central bank, the Reserve bank of India. The strategy making in the small scale units is still to incorporate competitive advantages, deadlines, basic action plans and strategic options as per industry.



Source: (Vorzsak, 2007)

Figure 2.4: The role of resources in "competitive advantage" generation

## 2.4.4 Small Scale Sector Competitiveness: Indian Scenario

The diverse frameworks (Hazarika, 2012) exist with regard to the competitiveness determination (Vladimirov, 2015) and respective strategy execution (Chaston, 1997), strategy maneuvers (Kumar B., 2017) and business dynamic determination (Sato, 2015); concentrate on the tangible and intangible resource aspects of the business modeling (Mishra, 2013) and resultant outcomes in form of competitiveness retention and overcoming the threat of organizational decline (Deshpande, 2004) and sickness (Latif, 2014). The Indian scenario and the associated studies (Dholakia, 1989) do focus on the tangible (Deepthi, 2012) and intangible (Joshi, 2013) aspects of failure prevention yet the lack of focus on the competitiveness retention (Goyal G., 2012) and enhancement is missing.

The substantial research based gaps exist with regard to the divergent operationalization of the phenomenon of competitiveness across Indian small scale sector. Essentially the "phenomenon" is "socially constructed" and a lot of factors directly contribute to the state of "unit based industrial sickness" yet the focus often escapes the concentration on the cross factor linkages that drive and impact the overall chances for survival or the sickness across the resident industrial units.

Anyhow the existing literature seems to be unanimous with regard to the resources (tangible, intangible, assets and capabilities, managerial resources, capacities and entrepreneurial orientations) as playing a central role in operationalization of strategic impetus and the innovation management. The factor conditions along with the demand conditions, supportive industry, and prevailing industry structure and government regulation on the other side too seem to determine the competitiveness across the developing economies like India.

Especially in context of Andhra Pradesh (Venkatanarayana, 2012), the productivity is low (Sharma D., 2006) and the competitiveness (Sukumar, 2013) reportedly suffers (Begum, 2015) on account of the reported lethargic approach of the promoter as well as the external support based institutions. As illustrated here, the small scale competitiveness (Vladimirov, 2015) derives from the tangible resources, factor conditions as well as the innovation related change oriented processes that ultimately impact the performance in real time basis.

The competitiveness has been explored in conjugation with the industry structure and macro as well as micro determinants. The industry structure and its evaluation across existing industrial clusters in East and West Godavari as well as Krishna districts is important as it plays a role in facilitating or constraining the availability of the business opportunities for the native entrepreneurs (Mishra Y., 2013) in the state perspective. A study across the agriculture based industry transformation (Reardon, 2009) remarked the prevalence of the impact of the practices and the market structure on the competitiveness and sustainability of the firms and observed the inability of the firms to adapt as leading to partial sickness (Lahiri, n.d.) or complete bankruptcy (Pratibha, 2018) in short to long run perspective (Patil C., 2014). The East Godavari district and the resident industry structure as evident from the studies (Sreenivasulu, 2014) illustrate the substantial impact of the locally available raw material in shaping the entrepreneur's aspirations (Panigrahi, 2012), stamina and likings. In a similar aspect, the studies (Aruna, 2017) on the industry structure across West Godavari and Krishna districts were rather unanimous in supporting a policy framework (Martin, 2014) that supports and restrains the entry of other competitive forces (Kumar, 2014) yet degrades the relative ability of inherent firms to compete (Tendulkar, 1997) and recover from sickness. Another section of studies re affirm the prevalence of the protectionist rather aimless policies (Uppal, 2006) that weaken the ability of the firms to adapt and transform (Malepati, 2011).

Another extensive study (Aji, 2015) across coir industry revealed the incidence of the substantial impact of the intra unit competition on the access to markets as well as the respective ability of the unit to secure access to B2B channels. The study further underlined the utility of the social capital in the sustenance of revenues as well as survival prospect improvement. A recent study across packaged water manufacturing industry in Andhra Pradesh industrial belt (Dada, 2009) revealed the incidence of the local pressures (Reddy, 2002) in supplier and distributor networks management and governance.

In a similar spirit a study across coconut based manufacturing industry in Andhra Pradesh pointed the prevalence of the impact of local political linkages in determination of access to raw material on consistent basis. Another study on coconut based manufacturing (Reddy K. , 2017) observed the economics of the coconut production and the ancillary industry based on the coconut as an agricultural produce.

A related study (Naik, 2016) pointed towards the challenges in ensuring the availability of the coconut as essential raw material for the concerned small scale industry (Lathika, 2005) in the East and West Godavari districts. A study (Lathika, 2005) across the coir products manufacturing industry in Andhra Pradesh revealed the incidence of the gross negligence and inappropriate market orientation amongst the clustered firms. Another study (Gugloth, 2011) across the coir products manufacturing industry in southern India underlined the need for change in strategy building and business modeling as per market needs.

A study (Aji, 2015) on the coir based manufacturing SMEs in Kerala observed the role of the lean manufacturing practices in ensuring competitiveness, organizational survival (Kalamani, 2006) and economic viability (Samsai, 2013) in the long term proposition. The unit based lack of learning (Weerawardena, 2006) seems to dominate the current crisis as the industry structure across the developing economies impacts the market focused learning capabilities, internally focused learning potential as well as the relationally focused capabilities of the small scale units. Such an impact seems to drive the impetus for unit based consistent innovation and hence the brand based performance in B2B and B2C markets.

The current sub-contracting and ancilarization (Subrahmanya, 2005) of the small scale industrial units<sup>2</sup> in Andhra Pradesh (Nagaraj, 1994) has always remained dismal (Sahu, 2007) and fragmented (Pandey, 2007) on account of the failed and non performing business linkages (UNCTAD, 2010). The lack of sub-contracting practices across the local and regional units has been observed to mar the prospects for export and internationalization as well as harnessing of competitive advantage. The lack of measures to cover up for the inherent unit based organizational deficiencies (Chowdhary, 2012) seem to involve the aspects of management inefficiencies (Tuli, 2017), managerial deficiencies in decision making (Santana, 2017) are a part of the managerial perceptions (Gomez-Mejia, 1987).

The existing literature (James, 1999) remarks these unit based inefficiencies as impacting the implementation of the business model in timely manner across the segment market. The respective vulnerability of the regional manufacturing units to

<sup>&</sup>lt;sup>2</sup> http://dcmsme.gov.in/thrustareas/ancill.htm

state policy figures as the most prominent factor that impacts the sub-contracting and ancilarization of overall state based production and economic value creation. The ancilarization of the state bound units have failed to reach an economy of scale whereby the sustainable production could be carried out. The lack of focus of the financial institutions in supporting unit based sub-contracting figure across the MSME annual report as well.

The report vindicates the prevalence of the unit based sickness on account of non-assured business and non-identification of bank or the credit institution as the most crucial stakeholder with significant say in the survival, operations management as well as revival of the small scale manufacturing unit in industrial clusters in Indian perspective. The paper further noted that the unit's relationship with the bank are ideally shaped and impacted by the dealings within the promoter and the bank officials and managers. The study further remarked the existence of the cross lateral impact on the firm's access to institutionalized financial resources as well as access to effective financial management practices.

With regard to Porter's competitiveness framework, the variances are evident with regard to extent of competitiveness of small scale units in Andhra Pradesh and across the national geography in continuity. In a similar spirit, the variances are evident with regard to unit based indulgence in innovation and product improvement on account of differences in strategy development across Indian SSI units in particular. A study highlighted the existing business environment as shaping the impetus for the business procurements, cost structure, market pressures as well as constraints son the existing resources leading to a biased and non-market orientated policy framework possessing consequences for performance and unit based competitiveness and resultant sickness.

## 2.5 Literature on Industrial Sickness

Across the economic literature on subject matter (Cruzten, 2008), industrial sickness or corporate failure across SSI units has been a dominant phenomenon. A review of publications and citations across leading journals reveal the incidence of gross instance of inability of the small sale units to conform itself with economic environment, non-ability to fit across changing economic and business circumstances as well as gross incompliance with regard to grow, sustain and survive.

An economic theory (Garicano, 2015) details the "industrial failure" as an outcome of two dimensions. The study across European firms (Garicano, 2015) concluded that organization become sick as they lack incentive based support (managers, decision makers and stakeholders do not act in the manner that upholds organizational interests) or organizations succumb to rationality problems (decision makers, managers and employees do not possess the insights and knowledge, information and data with regard to acting in a rational manner). "Bounded rationality" in decision making as well as ability or inability of the decision makers to "pursue corporate interests" across turbulent business environment, figure as two prominent yardsticks and parameters to define and understand the contexts that seem to be heavily researched aspects across existing economic literature on "industrial sickness" across small to medium enterprises.

The Indian scenario and the associated studies (Dholakia, 1989) do focus on the tangible (Deepthi, 2012) and intangible (Joshi, 2013) aspects of failure prevention yet the lack of focus on the competitiveness retention (Goyal G., 2012) and enhancement is missing. The observed lack of business plan development (Bamfo, 2015) and lack of harnessing the strategic intent (Hamel, 2005) further seems to complicate the problems that arise cross the venture shelf life. The associated entrepreneurial "uncertainty of knowing" (Atherton, 2003) and the unilateral rather than consensus approach to strategy formulation (Dess, 1983) has often been sidelined in mainstream discourses.

In a similar aspect, the studies (Aruna, 2017) on the industry structure across West Godavari and Krishna districts were rather unanimous in supporting a policy framework (Martin, 2014) that supports and restrains the entry of other competitive forces (Kumar, 2014) yet degrades the relative ability of inherent firms to compete (Tendulkar, 1997) and recover from sickness. Another section of studies re affirm the prevalence of the protectionist rather aimless policies (Uppal, 2006) that weaken the ability of the firms to adapt and transform (Malepati, 2011). A study across the agriculture based industry transformation (Reardon, 2009) remarked the prevalence of the impact of the practices and the market structure on the competitiveness and sustainability of the firms and observed the inability of the firms to adapt as leading to partial sickness (Lahiri, n.d.) or complete bankruptcy (Pratibha, 2018) in short to long run perspective (Patil C., 2014). A recent study across packaged water manufacturing

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## 2.6 Contribution of SSI Sector to national economy

Across the existing literature (Ambrosini, 2009), the role of Small Scale Industry (SSI) in industrial policy, national industrial development and national manufacturing has been prominent. Especially in context of transition economies or dual ownership based economies with public and private sector; SME firms seem to play a crucial role in economic stabilization, macro-economic growth and sustainability of employment generation. In fact the definition and interpretation of SME or SSI firms seem to vary across nations, regions, countries and economies. The term "SSI" has

been used more extensively in context of inclusive growth and in context of productive employment, opportunity creation and competitive dynamism. Small scale enterprises seem to comprise a larger chunk of firms that actually influence the economic activity across a nation with their secondary and tertiary value creation emphasis. SSI sector has been observed to contribute towards national manufacturing and GDP in myriad ways and means. A section of literature emphasizes the role of small scale manufacturing in promoting regional and local level demand fulfillment and better usage of industrial goods and services. Another section of literature (Naresh, 2016) identifies the SSI sector as contributing to national and international product and service value chains by insisting on the manufacturing and facilitation of tasks and activities that essentially identify as non-core or involve local inputs and their processing.

Ever since the initiation of macro-economic reforms in India in 1990s, different propositions have been debated and contrasted for last two decades of economic reforms. The Government across central and federal setups have changed yet the institutional understanding and support mechanisms are still insufficient in Indian context despite the crucial role of small scale enterprises in overall production matrix. World Bank and IFC, IMF and OECD have illustrated the diverse models of contribution that SSI units can undertake in development and sustenance of regional and local level economic exchanges and social transformation. The microeconomic roots and influences of small scale sector have widely been debated.

The initiation of macroeconomic reforms in post 1990s awarded a legendary role to the small scale and MSME sector-based enterprise in revival of industry and national manufacturing in Indian perspective. The SME sector is observed to contribute substantially towards the economy in short to long term growth prospects. The SME sector comprises the entrepreneurial units that undertake risk and contribute towards the national and regional production of goods (Patil, 2011). The term small scale sector comprise the small scale entrepreneurs who indulge in manufacture and production of the economic goods and services on the relatively smaller scale yet contribute significantly towards the national GDP, regional macroeconomic stabilization, employment generation, competitiveness in economy as well as development of ancillary support to the major industry and industrial developments in the region.

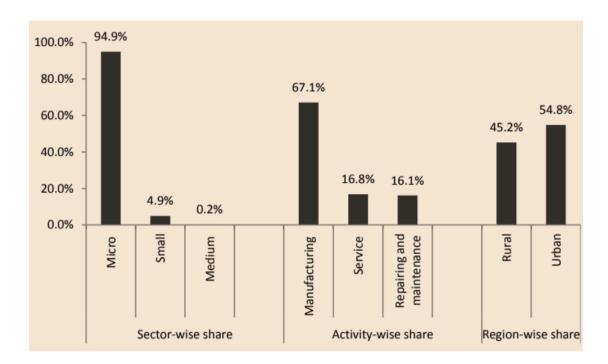


Figure 2.5: Distribution of registered SMEs in India

Source: (Chopade, 2013)

In view of the employment generation potential of SSI units across Indian economy, there has been reported increase in employment generation across the fiscals from FY02 to FY11.

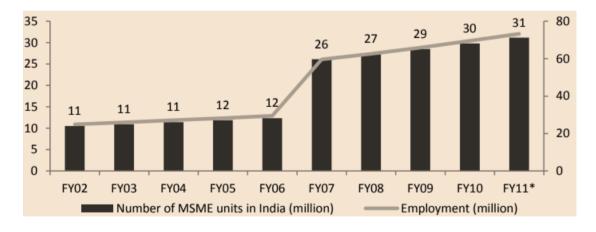


Figure 2.6: Variations in employment generation with SMEs

Source: (Chopade, 2013)

With regard to the sectorial distribution of the product as manufactured by Indian SSI units, apparel and textiles based products and add-ons seem to dominate the picture. This sector seems to account for maximum chunk of production being undertaken

across Indian SSI sector. This sector is closely followed by food products and beverages manufacturing sector in Indian context. The two sectors collectively seem to account for maximum chunk of production being undertaken across Indian SSI sector for last five to six years.

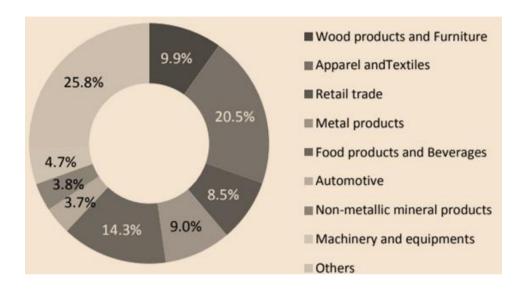
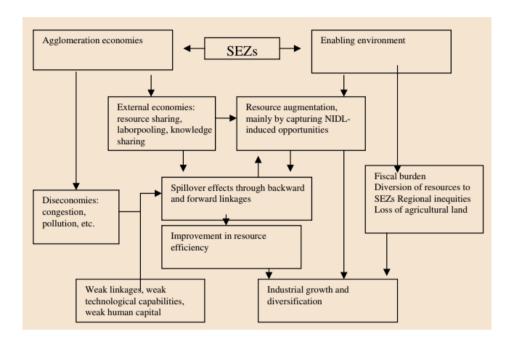


Figure 2.7: Sectorial distribution of Product

A study (IBEF, N.d.) on Indian SMEs revealed the incidence of clustering tendencies and respective economic effects across SSI based clusters in context of developing economy of India. Special economic zones (better known as SEZ) seem to lead to agglomeration economics as well as promote the provision of enabling environment for the conduct and operations of business. The study (Ahmad S., 2009) revealed that the SEZ based SSI units seem to exert economic influences in terms of resource sharing, creation of economies of scale, opportunities for resource agglomeration, resource sharing and co-development (Ahmad, 2009), spillover effects in terms of backward and forward linkages, improvement in local resource usage efficiency, technological capabilities harnessing, tapping local human capital and human resources, creation of tax base, employment generation and local factor market development by boosting demand for locally available raw materials, inputs and human labor. The research (Altenberg, 2011) also underlined the efficiencies in terms of inclusive growth, economic development of local regions, development of factor markets, local employment generation as well as boosting local tax collection. The "flow" effect was also observed as leading to circulation of money and increase in local mobility of resources, factors of production as well as boosting local level

demand and supply mechanisms. In totality, the study (Aggarwal, 2011) based findings point towards the state of generation of flows as well as inducing the cyclic effects across local perspective and giving a boost to local resource mobility.



Source: (Aggarwal, 2011)

Figure 2.8: Economic effects of SEZ cluster based SME

#### 2.7 Selected variables for study

#### 2.7.1 Promoter driven factors (Entrepreneurship and Motivation)

The managerial inefficiencies, financial mismanagement, inconsistent and nondurable assess to factors of production, technology driven factors and the infrastructure related factors have been recognized as the internal factors that

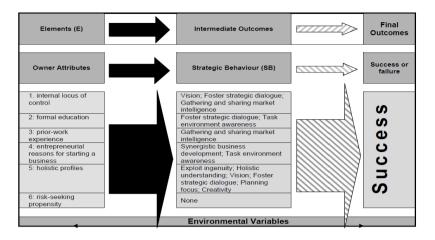
Factors	Definition	Dimensions Identified from across Literature
Lack of Entrepreneurial Orientation	This factor is about promoter's own lack of orientation for entrepreneurship. The lack of motivations, non- focused identity at work, lack of commitment, lack of skills figures as the most prominent dimensions of the factor	Motivations (Ahmad S., 2009), Intensity at work (Baptista, 2014), Passion (Bretherton, 2005), Commitment (Alom, 2016), Orientation (Calvo, 2010), Capital (Lamberg, 2005), Skill (Cristovao, 2015), Expertise (Agle, 1999)
Inappropriate Managerial Control	This factor explores the manner in which promoter based inappropriate controls could lead to firm failure. Promoter's own resource controls, lack of decision execution ability, resource usage patterns; could figure as aspects that could probably shape managerial inefficiency and lack of managerial controls	Resource Controls (Aji, 2015), Strategic control (Ambrosini, 2009), Decision execution ability (Basant, 2006), Resource Usage Patterns (Baptista, 2014)
Faulty Resource Planning	• • • • • • • • • • • • • • • • • • • •	Resource allocation (Alom, 2016), Mobilization of support (Chaston, 1997), Resource wastage Minimization (Dayal, 2007)
Inadequate Capacity Utilization	Promoter's own inadequate capacity planning figures as another factor that leads to inefficiency in management of resource usage patterns and sourcing patterns	Lean Manufacturing (Carree, n.d.), Efficiency management (Aldakhil, 2015), Sourcing (Shetty, 1964)
Lack of Occupational Commitment	Promoter's own lack of occupational commitment towards work, towards current profession and towards enterprise	Commitment to Profession (Ahmad S. , 2009), Sincerity (Cheng, 2015), One-Sided attributions (Gomez-Mejia, 1987)

Source: Self Compiled

Figure 2.9: Dimensions of Factor undertaken for "promoter" driven aspect

Contribute towards the firm based deficiencies in coping up with the business in turbulent environments (Brown, 2012). The "internally located and determined" deficiencies have been widely believed to play a larger role in determining the pattern of execution of the strategy, implementation of business model as well as the overall usage and allocation of the factors of production within the unit concerned (Dean, 2007). The business model execution is immensely effected by the predominant internal inefficiencies. The existing literature classifies the unit based internal inefficiencies as comprising the managerial or owner's perspective, as involving the planning, cognitive mindsets and the cognitive frameworks (Gomez-Mejia, 1987) with regard to business opportunity sensing and development in most potential form and context. The promoter's perceptions of the environment and strategic decision making (Chaston, 1997) are vital as they laterally and directly decide and determine the scope and context of the sickness, business failure and the thrust for revival. The entrepreneur's perceptions (Alom, 2016) with regard to the business based decision making (Deshpande, 2004), marketing (Dragnic, 2014), product design (Fernado, 2014) and innovation (Merrilees, 2011). The promoter's perceptions with regard to the "self-assessed and determined" deficiencies or efficiencies have been widely believed to play a larger role in determining the pattern of execution of the strategy, implementation of business model as well as the overall usage and allocation of the factors of production within the unit concerned (Dean, 2007).

The promoter's attributes (locus of control, reasons for starting the current business, holistic capabilities, formal management education and prior exposure and experience with regard to operations management) do bear a relationship with the overall strategic management of the enterprises in times of recession and turbulence across the developing and low developing economies. The study across the South African small, micro and medical tourism enterprises established the cross factor relationship across the strategy driving attributes of promoter's locus of control, reasons for starting the current business, holistic capabilities, formal management education and prior exposure and experience with regard to operations management. Further the study observed the relationships across the attributes of South African small, micro and medical tourism enterprises (SMMTE) as influencing the overall enterprise based strategic behavior as a dependent variable.



Source: (Tassiopoulos, 2016)

Figure 2.10: Individual (Promoter's) attributes as driving business performance: Success or failure

The research leveraged the SPSS based statistical platform to establish the relationships and validated the data with factor analysis and subsequently with cronbach alpha reliability estimation. In simpler words, the research based outcomes literally means that promoter's own attributes and characteristic differentiation does impact the enterprise based overall success or failure. The promoter or the entrepreneur can thus not escape the responsibility of leading the small scale venture to ultimate success (Rizzo, 2012), survival or else to sickness and bankruptcy. The research further consolidated the basis for the interpreting the foundations of success or sickness (Raymond, 2010) in context of developing country like India.

The behavioral biases in decision making (Yazdipour, 2010) and managerial heuristics (Atherton, 2003) are the cognitive processes and mechanisms that shape the decision making and sense making with regard to market dynamics and environmental uncertainties. The prevalence of asymmetrical information further complicates the decision making and the prospects for sustenance or failure of the small scale unit.

The existing literature with regard to managerial and entrepreneurial responses to uncertainty, asymmetrical information availability and prevalent business environment related turbulence; has often been reported to be biased as well as non-reflective of the best possible options that could have been exercised with regard to scarce resources and limited work force. A study (Atherton, 2003) highlighted the small business owner's "knowledge-as-knowing" as involving the aspects of the non-

uniformity, non-universality and complexity, dynamic as well as mixed in nature. Another study (Nimalathasan, 2008) on the prospective linkage between the owner's awareness of the surrounding environment and the respective impact on the small scale unit's performance across Sri Lankan enterprises revealed the incidence of the impact of the formal strategic planning on the unit based functioning and the economic performance as well.

The manager initiated "strategic consistency" (Lamberg, 2005) in unit based competitive behavior is being observed more an outcome of promoter's consistent engagement in strategy making than anything else. The subsequent phenomenon seems to possess consequences for the long term survival of the unit especially in context of small business enterprise. The promoter's perceptions of strategic planning (Gibcus, 2009), external dependencies (Brown, 2012) and internal deficiencies (Cheng, 2015) hence matter a lot in developing the promoter's awareness and understanding of the forces that shape and influence the business planning and strategy execution in unit's perspective in developing economies worldwide.

Such promoter based perceptions may not be measured directly yet have been operationalized in existing studies with aid of the self-assessment of the entrepreneurs with regard to their traits (Chinomona, 2013), orientations (Cheng, 2015), skill sets (Atherton, 2003) and inclinations (Nimalathasan, 2008). Such perceptions in existing literature (Khelil, 2012) have been reportedly operationalized with contextual specificity of the opinions, decisions and viewpoints of the owners. The ultimate objective in such studies as per existing literature is to explore the measurability and quantification of the linkages (Khelil, 2012) that lead to state of unit based failure or decline on account of the owner's attitude towards the business planning and unit based management. The promoter's perceptions of environment and the cognitive mapping in low velocity industries (Nadkarni, 2008) have been observed to be influential in shaping the strategy dynamics.

The promoter's planning and entrepreneurial orientation (Khelil, 2012) is being observed as a key differentiator that separates the sick units from the non-sick units. The promoter's passion, intentions and inclinations for entrepreneurial growth have been observed as reviving and sustaining the business temperament and hence the inflow of revenues. The promoter's self-driven inclination for entrepreneurial

management of the entity amidst challenges from turbulent business environment seems to matter across the existing literature. The promoter's entrepreneurial orientation (Cruzten, 2008) has been interpreted as involving the aspects of the innovativeness in decision making, risk taking propositions, proactiveness in strategy execution as well as competitive aggressiveness (Dean, 2007). The lack of such an outlook (Chinomona, 2013) towards the unit could be evident in form of the delayed response of the unit towards the environment, changes in market demand and the respective loss of the timeliness of the enterprise's response (Waktola, 2016). The promoter's own personality constitutes a major internally determined factor. The personality attributes and orientations promoter's seem to impact the operationalization of the strategy and the planning for the venture.

The resources under unit's (promoters) control matters for the survival and sustenance of the small scale units (Ahmad S., 2009). The clusters of such units often house a number of units that compete for resources and strategic inputs (Chinomona, 2013). The promoter initiated resource usage impacts the cross resource utilization vis a vis the competitor units. The small sector based enterprises vary substantially with regard to resource usage. The resources of importance to such small scale units are "managerial competencies", "knowledge and skills of employees", "firm climate", "coordination", "strategic planning", "ability to attract creative employees", "market knowledge", "control and access to distribution channels", "advantageous relationships with customers", "customer's installed base", "efficient and effective production setup", "economies of scale and technical experience", "technological capabilities and equipment".

The slack resources across the existing resources have been observed as contributing to the organizational recoverability and avoidance of sickness. The promoter's perceptions and opinions with regard to the firm based slack resources have been observed to determine the firm's respective ability to suffer sickness or evade the sickness.

The management control and governance (Fernando, 2017) matters as it determines the extent to which the installed assets and resource bases are put to most optimal economic usage across the existing challenges and opportunities framework. The wisdom, the tact as well as the planning initiatives, proactiveness, innovation

orientations, aggressiveness, competition and market orientations as well as risk taking abilities of the promoters seem to make or mar the scope of the unit's successive plans of surviving the onslaught of the crisis. The small scale units (Chowdhary, 2012) are prominently proprietorship based yet the control and governance of the promoter rarely catapults the fullest potential into usage for the unit's economic breakeven and respective consistency of the revenue inflows. The MSME annual report highlights the conscious and unconscious roles that such promoters play or fail to play in wading off the crisis situation (Fernado, 2014) and preventing the unit from turning a sick unit.

Another study (Vani, 2017) enlisted the aspects of entrepreneurial ability to undertake risks, managerial capability, technological literacy, willingness to adopt new technology, readiness to seek opportunity, proficiency in managing public relations, ability to take decisions as important for entrepreneurial survival and sustenance.

A study (Malyadri, 2014) on the economic appraisal of entrepreneurship across small scale units in Andhra Pradesh revealed the incidence of the substantial impact of the factors of motive, risk taking, status, innovation capability, rewards and qualification of entrepreneurial sustenance in turbulent business environment (Rao A. , 2014). The study and its outcomes pointed towards the incidence of the crucial role of the entrepreneurial forces in influencing the industry structure and the respective economic value creation in the economy in regional and national perspective.

Another research study (Chowdhary, 2012) highlighted the evolving role (Vani, 2017) of the entrepreneurial inclinations (Dess, 1983), orientations (Lakshmi, 2013) and motivations (Mishra, A big synergy,proven success required to settle closure of SMEs, 2013) as shaping the individual's propensity (Malyadri, 2014) to indulge in entrepreneurial activity (Sharma, 1985) and respective focus in small business perspective (Shetty, 1964) across developing economies ad respectively impact the industrial development and local employment generation in multiple facets.

In different aspects, the regional studies have adequately highlighted the role of the entrepreneurship and entrepreneurial intentions and orientations in shaping the regional stimulus for the micro level competitiveness of the small business enterprises in short and long term durations. The existing studies (Rizzo, 2012) seem to highlight the evolving role of the local stimulus, individual promoter's entrepreneurial

inclinations and the promoter's passion, intentions and inclinations for entrepreneurial growth have been observed as reviving and sustaining the business temperament and hence the inflow of revenues.

The promoter's self-driven inclination for entrepreneurial management of the entity amidst challenges from turbulent business environment seems to matter for unit based competitiveness development; across the existing literature. The promoter's entrepreneurial orientation (Dess, 1983) has been interpreted as involving the aspects of the innovativeness in decision making, risk taking propositions (Kessler, 2012), proactiveness in strategy execution as well as competitive aggressiveness (Dean, 2007). The lack of such an aggressive and competitive outlook towards the unit could be evident in form of the delayed response of the unit towards the environment, changes in market demand and the respective loss of the timeliness of the enterprise's response (Waktola, 2016).

The promoter's own personality (Gomez-Mejia, 1987) constitutes a major internally determined factor that seem to impact the unit based competitiveness in short and long run perspective. In a similar perspective, the competitiveness and resource usage also bears a direct as well as lateral relationship across the earlier studies in Asian and Latin American perspective. The existing literature (Jennings, 1995) enlists the various forms in which the change in demand cycle critically impacts the survival and consistency of the revenue generation across the evolving small to micro enterprises in context of developing economy like India.

The existing studies (Kamungee, 2014) highlight the crucial role of the marketing constraints in appropriately tapping the demand (Friedman, 2017) and the market potential with limited resource base. The unit based competitiveness also owes a lot to the manner in which the "internally located (Dragnic, 2014) and determined" deficiencies (Elbana, 2007) have been widely believed to play a larger role in determining the pattern of execution of the strategy (Gibcus, 2009), implementation of business model (Hamel, 2005) as well as the overall usage and allocation of the factors of production within the unit concerned (Dean, 2007). The business model execution is immensely effected by the predominant internal inefficiencies. The business model innovation (Gambardella, 2010) and micro competitiveness seem to bear a direct and exquisite relationship which is being observed as a significant

determinant of the phenomenon of unit based competitiveness sin local and regional enterprises.

The regional and local studies (Duh, 2010) concentrate much on the growth and the impacts of the individual decision making and regional factors on the unit typology and evolution patterns. The small scale unit's competitiveness derives a lot from the prevailing strategic aspects. The unit based competitiveness has been observed to be influenced by the manner in which the promoter interprets the surrounding environment, forecasts the market based demand at local and regional level, develops strategies with regard to mobilization of the factor endowments, embeds the unit across existing supply chains as well as perceives the dependence and reliance on the external suppliers and channel partners across the product based value chain in totality.

The aspect of unit derived strategy dynamics have been observed to encompass the aspects of the extent to which the unit develops market based orientation (Elbana, 2007) and positions itself across the market place. The existing literature (Chopade, 2013) remarks that the external environment comprising the lending institutions (Bititchi, 2009), customer devoted supply chains (Deshpande, 2004), expertise across the knowledge centers (Sharma, 1985) does impact the harnessing of the unit based strategic awareness across the time and place (Singh G., 2010). Another study in Harvard on competitiveness illustrated the sizable impact of the micro and macro elements on the business survival and respective performance. Porter's legendary research underlined the significant impact of the micro and macro-economic competitiveness as driving the endowment usage across the small to medium sized enterprises in developing nations worldwide.

The earlier theoretical perspective (Rangone, 1999) advocates the unit based competitiveness as an outcome of the strategic unit based organizational capability (Rangone, 1999) to decide and embark upon an appropriate course of action in turbulent and uncertain business propositions. The promoter is widely regarded as the kingpin in shaping the strategic capability as well as the unit's potential to compete sustainably across the market platform. The cluster approach to unit based competitiveness has also been explored tremendously to justify the role of the unit location as facilitating or restraining the achievement of the competitiveness (Lall,

2005). This seems to be fairly true in context of the units located across the districts of Andhra Pradesh. Several studies (Ambrosini, 2009) have highlighted the evolving role (Mishra Y., 2013) of the cluster (Hadi, 2015) and agglomeration (Mello, 2007) in the industry dynamics (Malyadri, 2014) determination. The ill-timed and non-concentrated cluster development (Horsthuis, 2012) and small scale sector encouragement across the regulatory perspective and local and regional land use development as well as non-compliance (Kameyama, n.d.) towards the regional economic development initiatives has been observed as the major contributing aspect towards the non-generation of sustainable gains from the small to medium scale enterprise (Kamungee, 2014) at local and state level in Indian and Asian nations.

## Promoter's lack of "Entrepreneurial Orientation" and contribution to unit based sickness

The entrepreneur's reported lack of focus or disoriented "entrepreneurial orientation" has been observed to dilute the rationale for small scale unit based competitiveness, ability to compete as well as ability to sustain revenues and inflows. The entrepreneur driven strategic and core competencies (conceptual, opportunity recognition, adaptation, familism) often lead to a substantial impact on the financial and nonfinancial performance (Tehseen, 2015). Such competencies and their possession with the small scale entrepreneur has been observed to be detrimental in shaping the unit's resolve to fight back as well as face off the inconsistencies and challenges to the revenue sustenance and competitiveness. Another research attributed the phenomenon as involving the concept of skills. The entrepreneur's (promoter's) skills have been observed as instrumental in shaping the organizational ability to face off the sickness threat well in time. The research further identified a set of skills namely the entrepreneurial skills (adaptive and organic), ownership skills (predictive and mechanistic), negotiation skills (trouble shooting and interpersonal communications) and organizing skills (coordination, formal communication, monitoring, stabilizing) as vital to the success of the venture and organizational survival.

A study (Protogerou, 2008) remarked that the entrepreneur's dynamic capabilities as vital for the small scale unit to harness the marketing competence and technological competence leading to a substantial impact on the firm based performance. The study on "entrepreneurship and innovation" conceptualized the construct as involving the

dynamic capabilities (coordination, learning, and re-configuration), environmental dynamism, marketing competence, technological competence, firm size as leading to observable impact on the firm based performance in short and long term prospect. The study underlined the crucial role of the entrepreneur in harnessing these aforesaid skills and attributes. Another study (Liu, 2012) remarked the existence of the slack as vital to organizational sustenance and survival. The "absorbed" and "unabsorbed" slack was lamented to lead to sustainable product innovation under the mediating role of the individual's own "entrepreneurial orientation" across the small scale unit in context of developing economies.

## Perceived Lack of "Resource planning" and contribution to unit's sickness

The entrepreneur's lack of resource planning (Horsthuis, 2012) has a unique role in the prevalence of the unit based sickness. The study revealed the incidence of the organizational resources, culture and behaviors, ability to innovate and willingness to innovate as impacting the respective innovation capability and the resource marshalling ability as well. The study further confirmed the presence of the substantial impact of resources across the entrepreneurship process and the innovation capability. Another study (Titus, N.D.) remarked the existence of impact of the external and internal factors across the strategic and operational latitudes. The study identified the customers and suppliers as the external yet strategic resources as they drive the revenues and provide sustenance. The employees, equipment, plants and knowledge was identified as internal yet strategic asset or resources as they drive the revenue growth.

## Perceived lack of "occupational commitment" and unit based sickness

The promoter's efforts at achieving or failing to achieve a fit have been viewed as associated with the continuity of sickness or firm based distress. The promoter's perceptions with regard to strategic fit and decision making patterns do possess implications for the evasion of sickness or surrendering to the industrial sickness. The existing literature concentrates a lot on the strategic misalignments (Heracleous, 2015) and the relationship with corporate failure. The existing studies point towards the larger role of the dysfunctional leadership especially the entrepreneur and non-appropriate corporate governance as setting the process and ignition of the organizational failure and inability to retain the market orientation and inability to

meet the expenses to operate effectively. Such strategic misalignments have been observed to lead to misdirected decision and actions which are been observed to hamper the pace and scope of the execution and consistency of the revenue inflows. The ineffective leadership (Heracleous, 2015) is believed as vital for the onset of the strategy based misadventures as well as inappropriate usage of the competencies and the capabilities, leading to a dramatic decline in the financial and non-financial performance of the small scale based industrial units and enterprises. The unit based market orientation (Merrilees, 2011) and management capability have been classified as leading to shaping the branding capability as well as the respective innovation capability; which were observed to shape the financial and marketing performance of the unit in short and long term prospect. The existing literature on the competitiveness (Fernado, 2014) of the small scale business enterprises in developing nations and states emphasize the constituents of the internal management (Belak D., 2015) as pivotal to success and survival of the units (Belak D., 2012). The study (Kamungee, 2014) across the African development market contexts illustrated the rationale of the access to business information, access to requisite business finance, availability of the managerial experience and access to industrial and other infrastructure as essential to the competitive performance of the SME and the small sized business units in context of developing economies like India. The study further concluded that the unit's consistent and responsible access to business information, matters as it seems to derive the basis for the unit's wholesome access to desired business finance, availability of the managerial experience and access to industrial and other infrastructure; in short and long term period.

#### Perceived failure of managerial control and contribution to unit based sickness

The existing literature (Sinha, 2009) elaborates on the linkages between managerial control and the respective small scale unit based sickness threat (Sharmaa, 2012). The entrepreneur's (promoter's) controlling skills have been observed as instrumental in shaping the organizational ability to face off the sickness threat well in time. The management control and governance matters as it determines the extent to which the installed assets and resource bases are put to most optimal economic usage across the existing challenges and opportunities framework.

The wisdom, the tact as well as the planning initiatives, pro-activeness, innovation orientations, the promoter's decision making aggressiveness, sense of understanding of competition and market orientations as well as risk taking abilities of the promoters seem to make or mar the scope of the unit's successive plans of surviving the onslaught of the crisis. The small scale units are prominently proprietorship based yet the control and governance of the promoter rarely catapults the fullest potential into usage for the unit's economic breakeven and respective consistency of the revenue inflows.

## Perceived inadequate capacity utilization and contribution to unit sickness

The existing literature (Devi, 2015) elaborates on the linkages between inadequate capacity utilization (Siddiqui, 2018) and the manufacturing unit based decline (Mounika, 2017) and industrial sickness (Sonwalkar, 2017). A study (Lampadarios, 2016) across the 118 owners and managers across the British small scale sector based enterprises in the chemical distribution industry revealed the incidence of the impact of the owner's perceptions with regard to capacity utilization and about managing the regulatory compliance, about skills with regard to entrepreneurship development and with regard to skills regarding the customer relationship management.

The existing literature vindicates the prevalence of the staring differences with regard to gross underutilization as well as optimum utilization of the installed capacities across the project site. The literature elaborates o the various methods and means win which installed capacity is either underutilized or not utilized at all. The reported underutilization is the obvious outcome when the resource availability is uncertain, liquid funds to buy the essential raw material is either constrained or limited in nature or the bargaining power of the unit's promoter with regard to market cartels and suppliers is substantially negligible or nominal. The improper capacity usage is also the end result when the management is having no foresight with regard to maintenance of the stockpiles of the raw materials or the preventive buying at economic rates in not undertaken.

## 2.7.2 Non-promoter driven factors (External Dependencies)

The vulnerability of the unit's operations (Alom, 2016) and functioning with regard to external actors consistently impacts the working and general progress of the firm in

continuing the operations. With regard to developing economies, the periodic transitions in political regimes at state level often lead to changes in the policy framework with regard to small scale sector. This change has been observed to lead to a transition in the way the unit draws resources from across the economy and converts the resources into meaningful products and services (Dragnic, 2014). The inadequacy with regard to the availability of the resources, input factors, infrastructural factors (Arasti, 2014), connectivity, supporting materials; has been observed to hamper the general functioning of the unit in question.

The dependence on the infrastructural goods and service (Cheng, 2015) dominate the small scale industry. The non-ability of the firm to continually access the liquid funds creates challenges in terms of work capital based leverage across the existing financial structure. The bank and unit's relationships (Waktola, 2016) constitute another area of dependence and conflict across the time. The inter organizational sourcing and bargaining terms (Lahtinen, 2011) constitutes another sizable area of conflict and clash of interests that is often judicious to the inculcation of unit based decline in performance and unit based sickness.

The external dependencies on supply chain partners (Sharma, 1985) are another area of observed constraint with regard to the effective and optimum functioning of the installed assets and the equipment across the premises. The MSME reports as well as SIDBI reports also highlight the crucial role of the state policy in prevention and removal of challenges with regard to the market access. The existing research also points towards the significant role of this factor (Tuli, 2017) as it impacts the industry structure, business activity in the industry cluster as well as the survival of the units.

Factors	Definition	Dimensions Identified from across Literature
Insufficient Factor endowments	The unit's dependence on resources matter as this certainly influence pace and consistency of production and its scheduling	Access to resources (Bretherton, 2005), Allocative efficiency (Calvo, 2010), Pricing (Krishnan, 2017)
Policy uncertainty and governmental support	The policy uncertainty as a factor explores the consistency of government policy. The changes in government policy certainly impacts the SME based access to finances, mobilization of resources, taxation and local level fiscal incentives	Government Interventions (Dai, 2010), Policy Uncertainty (Caillie, 2008), Policy Dynamism (Dawes, 2001)
Extent of Infrastructure based hassles	*	Access to all weather infrastructure (Chandraiah, 2014), ,Market Infrastructure (Goswami, 1993) Technology synchronization (Gomez-Mejia, 1987)
Perceived Changes in Economy	The factor of perceptions of changes in economy explores the extent to which the transitions and changes and uncertainties in surrounding economic and business environment	
Perceived Credit Institutional support	The factor of credit institutional support explores the challenges that a SME unit faces in accessing formal credit	

Figure 2.11: Dimensions of Factor undertaken for "non-promoter" driven aspects

The unit and its operations are a socially constructed phenomenon. The industrial manufacturing unit relies on the external inputs (Ombaka, 2015), critical resources, support mechanism, institutional provisions and institutionalized mechanisms (De-Mello, 2007) for resource mobilization. The industrial economics already detail on the "resource dependency" of the industrial activity (Delke, 2015). The resource dependencies have been observed to be worse and rigid (Sheppard, 1995) and disastrous across the small scale manufacturing units than the larger manufacturing units. As observed in the research on the linkages between resource dependency and organizational failure, organizational access to critical resources is detrimental to survival and overcoming the failure risk. The small scale unit's control over the operations (Delke, 2015) has been observed to be determined by the extent of control that the unit exerts over the industry, extent of industry based clustering and power equations (Ahlstrom, 2004), influence across the critical resource providers (Alom, 2016), extent of buffering achieved through diversification and the present level of stock of the organizational resources. The earlier research has vindicated that no single industrial unit could ever control all of the resources that it requires to grow and achieve their organizational objectives. There is compulsive need for the industrial units especially in the small scale sector (Delke, 2015); to enter into exchange and partnering relationships with resource providers, suppliers and chain based partners in order to streamline the business operations. The promoter based interlocks and personal linkages with the resource providers have been observed to be instrumental in shaping the consistency of resource availability and preventing the onset of the failure or the organizational decline. The resource magnitude and the respective criticality of the aforesaid resources seem to vary substantially.

The study (Ombaka, 2015) across the European firms revealed the tangible and intangible resources as impacting the rate of innovation as well as the external aspects as influencing the firm based performance and safeguarding from the onset of sickness. The small scale units constantly face the threat of survival and continuity of production on account of their pattern of access to required raw materials. The factor of "resource based inconsistency" and "resource based irregular supply" has figured prominently across the national reports as well as MSME's internal reports on the sickness of the small industrial units (Chowdhary, 2012).

The lower bargaining power (Ambrosini, 2009) of the small scale clustered units often leads to the state of inconsistency of the supply of the crucial inputs to the overall production schedule. The promoter's resource usage decisions (Lahtinen, 2011) seem to matter with regard to warding off the sickness. The fit amongst the elements of the strategy, fit across the elements of organization and across organization and environment perspective, and the fit across strategy and system; are some of the vital dimensions of fit the call for attention and consideration when the firm seeks to survive and sustain. The firm based ability to survive turbulence, crisis as well as sickness have been observed to center around the fit propositions.

The sick SME and smaller unit based enterprises have consistently exhibited the lack of fit across the various aspects of the system, organization and strategy. The context of fit is vital as it involves the multiple aspects of the firm specific notions and context specific notions of the phenomenon. The promoter's efforts at achieving or failing to achieve a fit have been viewed as associated with the continuity of sickness or firm based distress. The promoter's perceptions with regard to strategic fit and decision making patterns do possess implications for the evasion of sickness or surrendering to the industrial sickness.

A comparative study (Raravi, 2013) across the small to medium enterprises in tier one and tier two cities revealed the substantial gaps with regard to the factors that contribute towards the performance of the sector. The study across Hubli-Dharwar region observed that the entrepreneur's perceptions of factors is important and that the entrepreneur's opinions of the infrastructure support, prevailing government policy, regulatory environment, management style, financial support, technological up gradation possibilities, and the skills across the human resource; shape the performance of the enterprise(unit) in short to long term perspective. The study leveraged the factor analysis and the regression analysis to establish the cross factor linkages and vindicated the existence of the cross factor influence on the possible contours and contexts of the SME performance across the tier one and tier two urban industrial clusters. The linkages as illustrated in diagram in following sections focus on the inputs as infrastructure support and the government policy framework. The research regarded the process based antecedents as comprising the elements of management style, financial support and the technological up gradation and human aspect. The study further regarded the outcomes as involving the financial performance (profit, return on assets and return on investment) and product market based performance( sales, market, consumer satisfaction).

#### Perceived changes in demand and economy: Contribution towards unit sickness

The entrepreneur's assessment of the changes and trends (Fernado, 2014) in the external and domestic as well as export market based economy (Chittithaworn, 2011); has been observed to be crucial and critical in determination of the revenue based consistency and the execution of plans and strategies for the prevention of industrial sickness. The existing research as earlier reported the instance of the "entrepreneur's assessment" as vital in safeguarding the enterprise from the sickness like features and perspectives.

A study across Brazilian steel market based enterprises pointed towards the incidence of the mismatch and significant gap (Porto, 2017) across the owner's perceptions and the business environment based realities thus leading to obvious failure of the units on consistent basis. The owner or manager as agency factor enshrines a lot of potential and weight in the determination of the survival and sickness revival prospects in and across the working of the unit.

The study further attributed a lot of relevance of the skills and their requisite and timely adaptation to the realities and the requirements of the market and the environment. The entrepreneur's own assessment and native skill sets as agency determinants figure a lot in the available literature across the journals and studies focusing on the survival and revival exercises.

Another study (Kessler, 2012) observed the incidence of the dominant and preliminary impact of the personal factors (socio-demographics, personality), resource and environment related factors (human capital, financial capital, social capital involving the social and business networks) and the founding process related factors(organizational effort, fulfillment of expectations, failure considerations and startup probability) as impacting the instances of the founding success and the prospects for recovery from sickness.

#### Perceived lack of access to credit: Contribution to sickness

The global research validates the relationship across the factors of "access to credit" and the "threat of sickness". A study (Barrick, 2015) revealed the direct relationship between the small business unit's access to credit and the respective relationships with bankers. The existing research studies points towards positive relationship across the "unit's access to credit" and "relationship with banker" in the small scale enterprises in developing economies. The paper on "determinants of small business venture based success" noted that the unit's relationship with the bank as ideally shaped and impacted by the dealings within the promoter and the bank officials and managers. The study further remarked the existence of the cross lateral impact on the employees, customers, financial institutions, local authorities and the government.

The supporting literature clearly highlights the rising role of the industry forces (Dragnic, 2014) and the pattern of the industry elements as significantly impacting the prospects for sustainable revenue generation (Tuli, 2017), scope for survival and as well as rehabilitation in times of economic recession and demand downfall. The existing studies (Nadkarni, 2008) also underline the rising role of the incentives by state in supporting or alienating the regional and locally emerging small scale business enterprises in developing nations and states.

An earlier study (Lee Y., 2016) on the impact of the industry structure revealed the incidence of the substantial impact of the relationships across the prevailing regional market structures, conduct and performance on the firm's respective ability to sustain the revenue generation as well as meet the fixed and variable costs. The study further illustrated the role of the market structure in shaping the firm's conduct as well as the respective performance in the time across the fiscal. An earlier research study across the Nellore district observed the incidence of the substantial impact of the aptitudes (capacity to bear risks, capability to forecast the prospects of enterprise, sense of confidence and competence in handling the odd situations) as vital for the small scale units to survive and face the competition from across the larger and established players in the market

Another study (Saparito, 2009) explored the relationship between the entrepreneur, his gender and the respective relationship with the banker. The study borrowed from the social network theory and derived the conclusion that the trust, bank's knowledge

of the unit based business activities, satisfaction with credit and likelihood of switching behavior on the bank and firm relationship. The results conveyed that male to male relationships across the unit and bank perspective were more trustful than involving comparative genders. A study (Moro, 2012) defined the trust as the binding factor while seeking the credit line for business financing and working capital requirement fulfillment.

## Promoter's perceptions of policy uncertainty & government support: Contribution to sickness

The study (Veerappan, 2016) revealed the linkages across the promoter's perceptions of the policy uncertainty and the threat of sickness. The study observed substantial gaps across the policy content and policy usage across the industrial estates in the southern state of Tamil Nadu. The study observed substantial differences with regard to the policy based perceptions and operationalization across the small scale entrepreneurs in Indian perspective. Another study (Arekar, 2016) reported larger under capacity utilization across the Indian small scale sector on account of frequent policy based changes and transitions.

In fact the relation with frequent policy based changes (Suraiya, 2016) and its subsequent impact on the unit based profitability (Gugloth, 2011), consistency of revenues or the failure of the unit to recover the costs (Goyal G., 2012) has been rather a complex and non-convergent (Sahu, 2007). A lot of studies (Lahiri, n.d.) point towards the prevalence of the significant impact of the policy transitions on the unit based ability to retain and sustain the production momentum (Goswami, 1993) and access to markets (Vani, 2017).

Another study (Rocha, n.d.) summarized the incidence of the significant impact of the tax rates, inflation, exchange rate and other macroeconomic determinants like the prevailing infrastructure, extent of regulatory restrictions and the transformational factors as impacting the context and scope of the business in perspective of Asian and other developing economies (Rocha, n.d.).

There exist a host of literature (Bititchi, 2009) that rightly identifies the micro and macro elements as impacting the unit's capability and capacity to contribute and perform as well as mobilize the economic resources from across the surrounding

environment in short and longer durations of time frame. In context of Andhra Pradesh based industry (IBEF, N.d.), the studies have concentrated on the aspects of the individual (Fernando, 2017) or the promoter's sense of internal management (Rao A. , 2014) as well as the macro factors (Malyadri, 2014) such as the provision and access to the fiscal and policy incentives.

Several studies have reportedly focused on the industry structure derived focus on the survival (Mishra, A big synergy,proven success required to settle closure of SMEs, 2013) and risk mitigation (Sharma, 2000) aspects across the organizational journey from startup to sustainable venture development in the longer run (Patil, 2011). The existing literature adequately highlights the role of the prevalent industry structure in the determination of the survival and rehabilitation of the sick units in context of developing countries and their intrinsic problems with regard to industrial growth and development.

The supporting literature clearly highlights the rising role of the industry forces (Dragnic, 2014) and the pattern of the industry elements as significantly impacting the prospects for sustainable revenue generation (Tuli, 2017), scope for survival and as well as rehabilitation in times of economic recession and demand downfall. The existing studies (Nadkarni, 2008) also underline the rising role of the incentives by state in supporting or alienating the regional and locally emerging small scale business enterprises in developing nations and states.

#### Perceptions of Infrastructural hassles and contribution to unit based sickness

The entrepreneur's perceptions (Aruna, 2017) of the infrastructure based hassles (Aqeel, 2011) and rail-road and air connectivity (Mishra Y., 2013) as well as telecom and digital connectivity (Rao A., 2014) also impact the unit based ability to stay (Chouwdhary, 2012) afloat and restrain the impact of sickness or turnaround. In ideal terms the industrial unit needs all weather access to motor able roads, multiple means of logistics, as well as a power and telecom to sustain commerce (Devi, 2015) and business operations. Yet in reality the unit's external dependencies often impact the flow of finished goods as well as timely receipt of the raw materials. The industrial clusters (Chandraiah, 2014) for small scale industries in Indian perspective are rather under researched or unexplored on account of non-availability of data or regional insecurities (Lall, 2005). There is substantial literature that calls for the evaluation and

scrutiny of the perceptions of the entrepreneurs in small scale sector with regard to consistent and all weather access to physical transportation based infrastructure.

The clusters (Caspari, 2003) have been observed to foster the participation in value chains that are national and global in nature and scope. In context of Andhra Pradesh based industry, a lot of studies (Joshi, 2013), (Gibcus, 2009) have underlined the sheer absence of the cross industry linkages (Fernado, 2014) as either missing or incomplete. The cluster design (Nadkarni, 2008) has not addressed the issues of the network problem resolution (Nibedita, 2011), updating and provision of the technical infrastructure and the real time knowledge resources (Kameyama, n.d.) as well as capital access mechanisms. The prevailing state of affairs with regard to the specialist supporting firms, physical supporting firms, social supporting environment and the locally derived demand and market conditions were observed to be in conducive to sustainable growth of the small to medium scale enterprises.

The local and regional industry –academia linkages (Basant, 2006) are assumed to be critical in shaping the exchanges that take place across the constituent firms, resident knowledge structures, commercialization activities and research and development with focus on market trends and aspirations. The industry clusters and the exchanges with locally resident institutions of higher education and learning promote the timely commercialization of the evolving research and development with regard to product, process and service quotient. Such a state of affairs has been viewed as impacting the prospects across American software industry, Israeli SME sector as well as Japanese SME sector. The Singapore based government mechanism and institutions, promotes and sustains such knowledge and technology exchanges. Globally there is sufficient and credible literature that supports the role of the exchanges in promoting the timely commercialization (Jennings, 1995) as well as sustenance of revenues (Hawkins, 1993) as well as generation and retention of cash surplus (Latif, 2014) across the enterprises. Such a surplus (Chopade, 2013) has been vindicated to protect against the firm going bankrupt (Sharma, 1985) and render industrially sick (Herliana, 2014). A study (Basant, 2006) on the state of affairs with regard to industry and academia exchanges in context of Bangalore based cluster; observed the incidence of the impact of the structural changes on the cluster characteristics as well as the linkages development across the cluster. The study further pointed towards the prevalence of the impact of the state and national policy initiatives on the linkages as well as cluster characteristics development in short and long run perspective.

The study across the Indian IT hub focused on the structural features, size and distribution of the IT firms in the region, usage of technology across the incumbent firms, nature of industry, extent of deployment of social capital, state of affairs of the available and accessible infrastructure, extent of linkages of the incumbent firms with the suppliers and the employees, extent of competitiveness across the existing player and the extent of the information or the knowledge driven exchanges that take place across the incumbent cluster based firms. Another study (Nibedita, 2011) on the power of clustering and HRM as source of competitive advantage: Evidence from cluster observed the significant influence of the dominant clustering on the aspects of the human resource management as well as skill development patterns across the small to medium enterprises.

## Promoter's perceptions of factor endowments availability: Contribution to unit based sickness

The promoter's perceptions of the sustained availability of critical factor endowments (Dholakia, 1989); has been observed as impacting the prospects for survival (Pratibha, 2018) or failure of the respective small scale unit. The state of sickness is widely believed to be outcome (Hazarika, 2012) when the critically required inputs are not available to the plant (Naresh, 2016) as and when they are required in order to sustain the flow of processed goods (Omri F. , 2015). A lot of studies (Arekar, 2016) have reflected upon the availability of the critical factors as vital for plant based operations (Nibedita, 2011) and regard the same as determinant of the success or failure of the small scale business enterprise. The unit's competitiveness (Caillie, 2008), ability to leverage the commercial potential (Lee Y. , 2016) and the capability (Cheng, 2015) to meet the expenses has been observed to be inter linked (Latif, 2014) with the respective ease of accessing the core raw materials and factors of production.

#### 2.7.3 Unit based relations and possible decline

#### Unit's perceived relations with stakeholders: Contribution to unit based sickness

The relations with the stakeholders especially the banks and the financial institutions have long remained at the basis of exploration as well as subsequent research and

analysis. In context of developing economies, the small scale unit's relationships with banks are assumed to be vital as they impact the availability of the working capital, timely funding, extension of time period for loan payment (Aldakhil, 2015) and other matters related with finances and credit management as well as letters of credit for export. The banks (Dragnic, 2014) in context of developing economies play a significant role in the funding of the enterprises as they ensure the loan repayment terms and conditions, capital growth as well as the guarantees across the time perspective. A study (Jennings, 1995) on the role of the key stakeholders identified the banks or financial institutions, customers, government, employees, suppliers and the local authorities as the key participants in the growth or the sickness or the failure of the small scale unit.

The study (Jennings, 1995) further attributed a lot of weight to the role of the financial and credit advancement institutions in the determination of the sickness revival prospects and the relations with banks were observed to impact the relationships with other stakeholders as well as these relations were observed to impact the production, the marketing and the coordination of the human resources. Another study (Agle, 1999) observed the incidence of the perceptions of the stakeholder attributes as determining the survival and sickness intent across the small scale enterprise. The study regarded the perceptions of power, legitimacy and the urgency as impacting the stakeholder salience and finally impacting the outcomes especially the performance in terms of profitability, employee relations, environment, product as well as the community.

## Unit's perceived sustainability of market orientation: Contribution to unit based sickness

The market orientation has been observed as central to the success or the failure proposition across the existing literature. The market orientation decides the quantum of the gap that exists across the unit based produce (Omri F., 2015) and the market based requirements. The small scale units often face the challenge of orientating and retaining the pro-market orientation (Mukoyama, 1998). The market orientation has consequences for the revenue generation (Malepati, 2011), unit's ability to meet the operational and other expenses and the respective ability of the unit to overcome the threat of sickness or organizational failure (Talaja, 2017).

The turnaround and revival strategies (Delke, 2015) also emphasize the achievement and sustenance of the pro-market orientation (Narver, 2004). The market orientation (Gibcus, 2009) in conceptual and theoretical terms has been understood as representing the organizational structure and strategy (Lamberg, 2005), possession of strategic organizational resources, competitive actions that fine tune the market processes and organizational positioning (Combe, 2010) across the segment market and leads to sustained revenue generation, as illustrated in the diagram below. Another study (Nadkarni, 2008) also underlined the similar observation that the small scale unit's orientation needs to gel well with the evolving market place if it wishes to recover from state of sickness and keep the failure at bay. The different aspects of market orientation (Narver, 2004) have been reported to be linked closely with the probability of the failure.

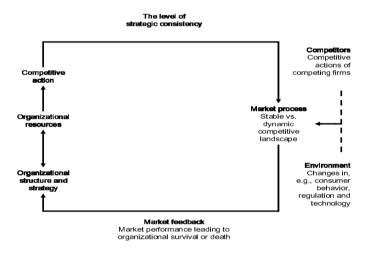


Figure 2.12: Small scale unit's market positioning with market orientation

Source: (Lamberg, 2005)

In context of India's developing economy (Shetty, 1964), the factors and their cross impacts (Atherton, 2003) multiply as the institutionalization of practices in small scale enterprises is not adequately formalized (Muthu, 2015) and lack the substance (Krishnan, 2017) and content (Rajeevan, 2012) with regard to responding to market based dynamics (Rao B., n.d.). The current research regards the firm based ability to survive turbulence; crisis as well as sickness has been observed to center around the fit propositions. The sick SME units and other smaller unit based enterprises across Indian perspective; have consistently exhibited the lack of fit across the various aspects of the system, organization and strategy. The context of "fit" and "pro-market"

orientation" (Mazzarol, 2004) is vital as it involves the multiple aspects of the firm specific notions and context specific notions of the phenomenon.

## Unit based ability to meet expenses: Contribution to unit based sickness

The small scale unit's ability to meet the recurrent and fixed expenses and meets credit lines; has been reportedly the subject matter of intense research and analysis. The Ooghe's legendary framework links the diverse stages as involving the excessive expenses and insufficient turnover, which have consequences for the profitability. The framework (Ooghe B., 1995) further interpreted the insufficient profitability as leading to a state of lack of sufficient funds to meet the daily and periodic expenses to keep the plants operational. The reported lack of liquidity at level of small scale business is believed to lead to a state of excessive rise in the current level of debts as well as the state of insolvency, illiquidity ad inability to sustain the business operations. The framework as highlighted in the illustration below adequately and appropriately captures the state of affairs across the small business enterprise in developing economies (Spencer G., 2003) worldwide.

The reported industrial sickness (Farrokh, 2016) as an outcome of the lack of sufficient funds to meet the daily and periodic expenses; is not an India specific attribute rather a global phenomenon. Such a perspective (Chaston, 1997) calls for implications for the successful turnaround when the unit's revival is to be discussed and analyzed. The state of inability (Sinha, 2009) to meet the operational expenses can be recovered if and only if the unit works backwards and seeks market orientation as well as rectify the internal mismanagements and sort out the strategic external dependencies. A spectrum of literature (Neill, 1986) exists that reflects upon the recurrent problem (Heracleous, 2015) of the small scale unit's respective illiquidity (Kessler, 2012) and respective threat (Mihajlovic, 2015) of industrial sickness (Gugloth, 2011). The existing studies (Kumar B., 2017) elaborate on the "illiquidity" (Uwonda, 2013) as disastrous for organizational survival and sustainability (Pacheco, 2015). The cash management aspect (Mungal, 2014) across the small scale enterprises has been observed as related with the cash flow management impetus. The study (Mungal, 2014) across African small scale enterprises revealed the correlation amongst the profitability in small scale business and enterprise based respective

execution of the cash management practices. Another research (Belobo, 2014) vindicated the existence of the significant influence of the cash management prospects on the overall profitability and sickness restraint across the SME sector.

#### Unit based Failure Risk: Contribution to unit based sickness

The small scale unit based failure (Mehralizadeh, 2005) is an end result of mismanagements (James, 1999), dependencies (Ooghe B., 1995), degraded market orientation (Titus, N.D.) and lack of liquid funds (Goswami H., 2016). The small scale unit's decreased capability to meet the variable and fixed expenses; has been reportedly the subject matter of intense research and analysis in context of industrial sickness and bankruptcy. The unit based financial decisions, strategy and performance owes a lot to strategic decisions and non-financial intangible aspects of overall decision making matrix (Pearson, 2001). The entrepreneur's internal inefficiencies (Alom, 2016), externally driven dependencies (Ehigie, 2003) and lack of market orientation (Ageel, 2011) have all been diagnosed as the most potent determinants (Krishnan, 2017) of the state of illiquidity (Hindle, 2010), gross financial mismanagement (Yazdipour, 2010) and the burden of industrial sickness (Sekar, 2012). The entrepreneur's self-driven deceptions (Khelilll, 2015) have been identified and debated as the most crucial aspect (Porto, 2017) that gradually leads to state of socially constructed (Vladimirov, 2015) and self-driven industrial sickness (Kalamani, 2006) across small scale enterprises (Khelil, 2012). Another research (Salzar, 2012) viewed the problem as involving the aspects of working capital management and respective allocation of funds across the investment and funding based financial decisions.

#### 2.8 Evident Research Gaps

The research is based on the research gaps that are evident from the existing literature, review of existing measures developed to quantify the concept as well as the practices and frameworks adopted to single out the factors contributing to the phenomenon of the small scale based industrial sickness and organizational decline. The research gaps were evident from across the review of the existing studies in context of developing and developed economies as well as the Asian and other emerging economies.

The research gaps were evident from the review of literature with regard to the role of the promoter or the entrepreneur in the sustenance or the survival of the small scale unit in globalizing economy like in India. The regional and state focused studies were negligible and the study borrowed extensively from the similar theoretical frameworks and antecedents as reviewed in the international journals, studies on developing economies and social setups. The most prominent research gaps are highlighted as under:

- The study faced the dearth of literature that adequately and effectively covers the entire aspects of the problems being faced across the Indian and state bound manufacturing and industrial units.
- The existing literature was non-convergent with regard to the key focus areas
  of: entrepreneur's role, perceptions of environmental support mechanisms and
  the outcomes in form of orientation and ability to meet the operational
  expenses.
- The aspect of entrepreneurial role was inadequately covered and explored across the India specific studies on the subject matter. The studies primarily focus on the qualitative aspects rather the quantitative and empirical aspects of the problem.
- The aspect of unit's external dependencies and support mechanism was inadequately explored. The exiting studies concentrate more on the MSME report based parameters and no innovation was ever applied and imagined with regard to the interpretation of the crux of the matter in hand and under discussion.
- The study also acknowledges the prevalence of the extensive research gap with regard to the internal aspects and entrepreneur determined incapacities and inefficiencies, yet the phenomenon was never ever interpreted in such a explanatory nature across the existing research studies in India perspective and with regard to the Andhra Pradesh economy in particular. The existing research concentrates more on the aspects and the themes that are either borrowed from the MSME reports or the RBI circulars.
- In association, another prominent research gap is with regard to the conceptualization of the external and environment driven support mechanisms.
   The operationalization of the construct of external dependencies, internal

inabilities and market orientation has never ever been explored across the existing papers and journal publications with regard to sickness probability across the small scale units in state of Andhra Pradesh.

- Most of the available literature confuses the SME sector, MSME sector and large scale enterprises as linked with each other. The exclusive sector focus on the small scale unit based sickness has never ever been examined and analyzed in right perspective across the time of globalization and opening up of Indian economy ever since the initiation of the grand macro-economic reforms.
- The substantial gaps exist with regard to the divergent operationalization of the phenomenon. Essentially the phenomenon is socially constructed and a lot of factors directly contribute to the state of unit based industrial sickness yet the focus often escapes the concentration on the cross factor linkages that drive and impact the overall chances for survival or the sickness across the resident industrial units. The study hence borrows from the similar existing research studies (Ooghe P., 2006) across the other developing economies as well as developed economies from the global perspective. The study projected that the lack of motivation across the venture's promoters often leads to a dramatic and significant decrease in levels of awareness with regard to the changes taking place in the business and economic environment. The study (Ooghe P., 2006) further comprehended that the inability of the incumbent firm to adapt and adjust to changing market conditions further restrain the cash flow generation and relatively lead to the cash flow inconsistency as well as the loss of the strategic competitiveness and the respective comparative advantage. The study (Ooghe B., 1995) further illustrated the outcomes in form of the inappropriate capital expenditures, declining levels of the sales as well as the incidence of involvement of higher expenses in form of the material costs, logistics and personal as well as interest costs. The observations were evident in form of decreased levels of liquidity, substantial increase in the levels of the liabilities as well as the observed rise in the mistrust across the consumers and the mistrust across the suppliers and bankers.
- The other foremost research gap is with regard to the resource usage analysis (Caillie, 2008) as well as resource utilization and management studies as

reviewed and explored across the existing studies and papers published across the international research journals.

The major areas of gaps across the existing literature are summarized as under:

### Non convergent existing research

There is ample theoretical conceptualization of the construct of "industrial sickness" across the developed economies. The Indian perspective is buzz with literature that focuses only on the identification of the factors yet all such studies and frameworks resist the attention on the establishment of either a benchmark or a yardstick that comprehensively measures the phenomenon in question. For instance the topic is researched and explored across a number of journal articles, thesis as well as seminar discussions yet the comprehensiveness is missing and no proper conceptualization has ever been undertaken. It is self-evident that the commonly known factors contribute to the phenomenon yet nothing specific is known with regard to the inter factor relations, cross factor linkages, pattern in which the factors relate with each other as well extent of convergence and generalization of the research model is unknown. Hence despite the availability of the research

#### Need to go beyond identification

The mere formality of identifying the contributing factors seems to be the content and scope of the existing research. The research seems to stop at the identification yet no further attempt has ever been made with regard to identification of the underlying linkages and the possible variances across the diverse sample segments. There is a host of reports and literature that seems to ceremonially identify the factors yet silent on the cross factor relationships, the scope for improvement and the coverage of the factors in questions is also absurd.

### Sector based ignorance

Most of the existing literature concentrates on the large to medium scale enterprise whereas no substantial research has ever been conducted on the problems specific to the region, the sector and the micro to small scale enterprise sin context of evolving economies with lesser manufacturing base. The emerging economy like in Indian perspective is facing problems from the lack of manufacturing productivity.

#### Biased and sponsored analysis

The sponsoring or the funding agency or the stakeholder to the sector often seeks bias and favors with regard to conduct of analysis and expected outcomes across the research study. For instance the credit institution sponsored studies seem to incline more towards the one or two aspects of the problem whereas ignores the better half of the problem in operation.

#### One sided focus

Most of the existing literature emphasizes one or two aspects of the problem yet silently ignores the host of related aspects of the problem. For instance, the research across the Southern India based units differs substantially in form of outcomes form the research conducted across North Indian small scale units. The one sided focus is also exhibited across the weight assigned to the probable actors contributing to the problem in focus.

#### Inappropriate quantification and measurement of the phenomenon

There are significant instance across the existing literature that rely on the non-empirical methods and strategies to measure the aforesaid phenomenon. The non-empirical approaches like the case study and the interviews of the promoters of the small scale units often fail to validate and arrive at reliable factor based measures of the phenomenon in currency across the developing economy. In some of the existing conceptual papers wither the empirical focus is missing or the construct operationalization is insignificant on account of use of non-standard methods like the factor analysis, exploratory factor analysis, confirmatory factor analysis as well as the reliability measures alike the cronbach alpha to calculate the validity and reliability of the measurement instruments used to collect and assimilate the primary data.

### Non usage of standardized statistical tools and analysis methods

The global research scores well on account of the use of the standardized statistical methods and methodologies adopted for subsequent data analysis. The region and national studies however fail to reach the validation standards as set by the existing literature on the subject matter. The studies from the Asian and other emerging economies often fail to figure in the international journals on account of this

limitation as they fail to incorporate the standard validation and reliability determination tools and methods that are acceptable globally. The use of structural equation modeling and path based analysis in figuring out the cross variable linkages and the path based analysis of the regression impacts is also missing across the existing studies that have poorly documented the problem anyhow in scope and context.

### Non usage of appropriate statistical analysis

The factors never ever operate singularly or unilaterally yet they always operate in linkage with each other. As such statistical analysis and choice of appropriate statistical techniques is deemed absolutely essential for generalization of the outcomes and evolve a workable model of the further research to be conducted seamlessly. The existing research either focuses on qualitative analysis or relies on the non-empirical methods that often fail to analyze the data appropriately and adequately with acceptable generalization.

# 2.9 Proposed Hypothetical Model for identification of cross factor influences

The proposed hypothetical model explores the antecedents to industrial sickness and the model examines the respective probability of sickness as evident. The Reserve Bank of India studies point towards diverse set of factors as shaping organizational sustenance in SME sector.

#### Impact of internal deficiencies on unit based closure

- H1 There is significant relationship between the "lack of entrepreneurial orientation" and the "failure in unit's market orientation"
- H2 There is significant relationship between the "lack of management control" and the "failure in unit's market orientation"
- H3 There is significant relationship between the promoter's "lack of occupational commitment" and the "failure in unit's market orientation"
- H4 There is significant relationship between the "inappropriate resource planning" and the "failure in unit's market orientation"
- H5 There is significant relationship between the "inadequate capacity utilization" and the "failure in unit's market orientation"

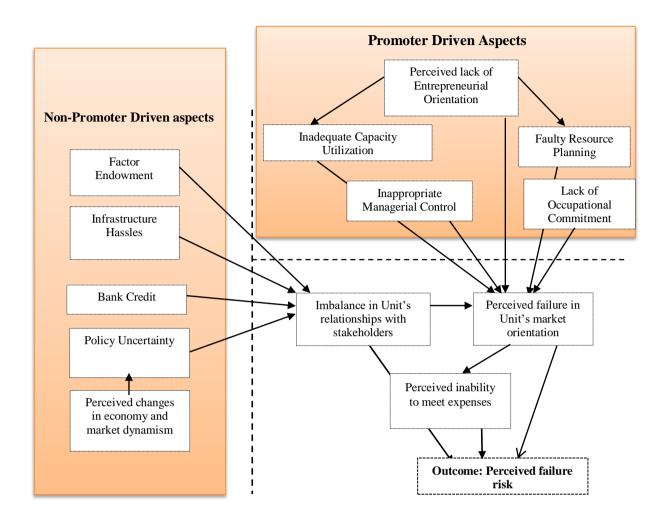


Figure 2.13: Proposed Hypothetical Mode

#### Impact of external institutional dependencies on unit based closure

H6 There is significant relationship between the "perceptions of changes in economy" and the "perceptions of policy based uncertainty"

- H7 There is significant relationship between the "policy uncertainty" and the "unit's relationships with bank"
- H8 There is significant relationship between the "perceived availability of bank credit" and the "unit's relationships with bank"
- H9 There is significant relationship between the "infrastructural hassles" and the "unit's relationships with bank"
- H10 There is significant relationship between the "lack of factor endowments" and the "unit's relationships with bank" by the promoter

### Linkages between Unit's relationships with stakeholders (banks), market orientation and sickness

- H11 There is significant relationship between the small scale unit's "perceived imbalances in unit's relationships with bankers" and the "failure in market orientation" of the small scale unit
- H12 There is significant relationship between the "unit's relationships with banks" and the "organizational failure"
- H13 There is significant relationship between the "failure in unit's market orientation" and the "inability to meet expenses" across small scale unit
- H14 There is significant relationship between the "failure in unit's market orientation" and the "organizational failure"
- H15 There is significant relationship between the "inability to meet expenses" and the "organizational failure" by the promoter

#### 2.10 Chapter Summary

The chapter introduced to the theoretical and conceptual frameworks across which the current research is positioned. The study further comprehended the subject matter as involving the aspects of internal mismanagements, external dependencies and the outcomes in form of relationships with bankers, market orientation, ability to meet expenses and the respective sickness threat. The chapter elaborates on the research gaps and built upon the gaps the hypothetical model along with hypothesis for the current research study.

S.no	Author(year)	Title	Objectives	Methodology	Variables	Findings
1.	(Aruna, 2017)	Problems faced by the MSMEs in Visakhapatnam district of Andhra Pradesh state: A rotated factor analysis	To classify the factors understand cross factor relationships	Likert based data collection, EFA, CFA, SEM Modeling, Cross Sectional Approach with Quantitative focus	Finance Problems, Marketing Problems, Managerial Problems, Production Problems	SME survival is dependent on these problems and ability of the SME firm to overcome these is dependent ton managerial will
2.	(Ahmad, 2009)	Dissecting behaviors associated with business failure: A study of SME owners in Malaysia and Australia	To draw lessons from entrepreneur's decision making in order to understand phenomenon	Structured Interview, Qualitative Approach	Behaviors of founder owners	Entrepreneurial inclinations and behaviors do shape the impetus for survival or failure
3.	(Alom, 2016)	Success factors of overall improvement of microenterprises in Malaysia: An empirical study on the contexts	To explore the factors contributing to industrial sickness	Quantitative methodology	Age of firm, Size of firm	Impact of size and age on the firm based prospects
4.	(Belobo, 2014)	Cash flow management: Assessing its impact on the operational performance of small and medium size enterprises in South Africa	To explore the role of cash management in success or failure of firm	Likert Scaling quantitative approach, Purposive sampling	Managerial level of understanding of cash flow, Level of Understanding, Level of awareness,	Managerial perceptions of cash flow matters
5.	(Calvo, 2010)	Established business owner's success: Influencing factors	To identify and model the influence of factors	Structural Equation Modeling	Human capital of entrepreneur, Firm based characteristics	Firm based characteristics and human capital of entrepreneur impacts the survival chances and prospects
6.	(Chopade, 2013)	Growth and Sickness of Small Scale Industries in India	To identify the factors leading to industrial sickness	Interview	Financial and Non- financial factors	Substantial influence on industrial sickness debated
7.	(Arasti,2014)	Business failure factors in Iranian SMEs	To investigate the factors that collectively distinguish business failure from success	Structural Equation Modeling	Lack of motivation, Lack of skills, Lack of capabilities, Supplier issues, Poor bank support, Inappropriate economic situation, Policies, Social issues, Changing Technology	The factors seemingly impact in varying proportions

S.no	Author(year)	Title	Objectives	Methodology	Variables	Findings
8.	(Chowdhary, 2012)	Empirical study on the reasons of Industrial Sickness: Jammu and Kashmir	To examine the reasons leading to industrial sickness, To interpret the employee's viewpoints	Factor Analysis	Corporate Planning failure, Financial barriers, Production problems, managerial instability, Obsolete Technology, Market related problems, Human resource related problems	The factors were observed to shape up the prospects for industrial sickness though manageable to larger extent
9.	(Chandraiah, 2014)	The prospects and problems of MSMEs sector in India : An analytical study	sector	Discussion, Interview, Secondary data	Organizational aspects	Organizational aspects define and shape the impetus for survival or failure
10.	(Ehigie, 2003)	Psychological factors influencing perceived entrepreneurial success among Nigerian women in small scale businesses	To explore role of individual competencies	SPSS based analysis with factor analysis	Individual competencies	Individual self-efficacy, sense of devotion shape the survival prospects
11.	(Garicano, 2015)	Why organizations fail: Models and Cases	To explore the whys and hows of organizational failure	Qualitative and Quantitative, Use of organizational economics	Incentive problems, Rationality problems, Multitasking problems, Communication Failures	The principal agent relationships and articulation of organizational interest matters in decision making in organizational economics
12.	(Mehralizadeh, 2005)	A study of factors related to successful and failure of entrepreneurs of small industrial business with emphasis on their level of education and professional training	To explore entrepreneur's role	Quantitative methodologies	Weak technical skills, Financial issues, Weak managerial skills, Informal and economic issues, conceptual skills and their inadequacy, Low training	Individual derived competencies matter
13.	(Kumarasinghe, 2010)	The role and perceptions of middle managers and their influence on business performance: The case of SriLanka	To examine the role of middle rung managers in decision making and averting crises	Quantitative methods, likert scale	Managerial potential and capabilities	Managerial stigmas and decision making is crucial to averting crises
14.	(Sekar, 2012)	A study on SSI Entrepreneur's Business performance and its constraints before and after registering in DIC-Special reference to Thoothukudi District	To interpret the role of district industry centers in shaping firm based prospects	Likert scaling, Exploratory Factor Analysis, Variance examination, Communalities	Variables of DIC	Analyzed the perceptions of SSI entrepreneurs about performance

S.no	Author(year)	Title	Objectives	Methodology	Variables	Findings
15.	(Arekar, 2016)	Capacity Utilization in SMEs of India: A study of chemical industry	To examine role of capacity utilization and classify favorable and unfavorable factors as leading to failure	Likert scale, prevaldated scales, exploratory factor analysis, SEM	Technical problems, Financial problems, Marketing problems, Labor problems, corporate planning	The internal problems do lead to failure in SMEs
16.	(Latif, 2014)	Detection and Remedies for Industrial Sickness in Small Scale industrial Units	Identify the factors responsible for industrial sickness	Likert scale	Planning	Corporate planning is crucial indicator of corporate health
17.	(Siddiqui, 2018)	Problems and challenges of Indian MSMEs in the post demonetization era	Examine the factors leading to industrial sickness in post monetization phase	Likert scale, Quantitative approach, EFA	Unavailability of skilled labor, Inadequate access to finances, Shortage of Raw Material, Marketing of produce	Substantial linkages across the input factors was observed
18.	(Gugloth, 2011)	Sickness of Micro, Small and Medium enterprises in Indian perspective	Identification of factors	Likert methodology	Marketing factors, Financial Factors, Human Resource related factors	These were observed to shape up the survival or failure prospects and implications
19.	(Crutzen, 2010)	The origins of small business failure: A grounded typology	Factors responsible for firm failure	Cluster Analysis, Correspondence analysis	Five explanatory firm failure patterns	Establishing similarities in failure patterns
20.	(Ooghe P., 2006)	Failure Processes and causes of company bankruptcy: A typology	Financial and non-financial causes of failure	In depth case study research perspective	Four failure processes	Stakeholders are responsible for failure progression
21.	(Santana, 2017)	Turnaround strategies for companies in crisis: The causes of decline	Examine the factors leading to failure	Case study	HR strategy based factors	Human resource systems are vital in securing organizational prospects
22.	(Devi, 2015)	Problems and prospects of small and medium enterprises in India	Exploring the aspects that guide SME	Interview	Financial and non-financial aspects	Variations in influence
23.	(Herliana, 2014)	Regional Innovation cluster for small and medium enterprises(SME): A triple helix concept	Examining the factors that affect regional cluster level innovation	Factor analysis and likert based survey instrument	Economic geography and management	Economic aspects matter
24.	(Mungal, 2014)	Cash management challenges of small businesses in a developing country	Focus on cash management practices	Likert scaling method	Working capital correlates	Cash management is crucial for small enterprises
25.	(Omri F., 2015)	An empirical investigation of	Small business based factors and their	Factor analysis	Small business based	Internal aspects seem to out rule

		factors affecting small business success	identification	technique	determinants	external aspects
26.	(Pearce, 1993)	Toward Improved theory and Research on Business Turnaround	Examining antecedents of turnaround	Secondary data based discourse	Determinants of turnaround	Turnaround is financial as well as non-financial in nature
27.	(Touzani, 2015)	Contextual and cultural determinants of entrepreneurship in pre and post-revolutionary Tunisia: Analyzing the discourse of young potential and the actual entrepreneurs	Review of contextual antecedents	EFA	Entrepreneurial agency	Entrepreneurs matter
28.	(Sheppard C., 2005)	Riding the wrong wave: Organizational failure as a failed turnaround	Understanding organizational failure	Case method	Antecedents of firm failure	Firm failure is structural, institutional and self-determined
29.	(Spanos, 2001)	An examination into the causal logic of rent generation: Contrasting porter's competitive strategy framework and the resource based perspective	Using Porter framework to understand market dynamics and possible consequences for failure	Likert based measurement and factor analysis for dimension reduction	Strategy, firm behavior and strategic inputs as basis of performance	Strategic use of resources is detrimental
30.	(Sinha, 2009)	Problems in marketing of small scale industries in Jharkhand: A case study of Bokaro industrial area development authority	Correlates of small business failure	Factor method	Determinants of firm based inability to perform	Firm based aspects matter in understanding organizational dynamics and articulation of corporate interests

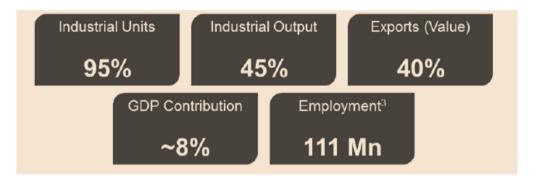
Source: Self compiled form literature

**Table 2.2: Summarizing the literature** 

#### 3 An overview of SSEs in India and A.P.

#### 3.1 Role of SSEs in economy

Small Scale enterprises (SSEs) have been playing an important role in the overall economic development of a country like India, where millions of people are either unemployed or underemployed. A study on the subject revealed that MSME units in India on average constitute sizable ninety five per cent of the total industrial units with substantial share of 45 per cent in the total industrial output leading to average exports of forty percent which is equivalent to GDP contribution of eight percent and a net employment generation of 111 million on annual basis.



Source: (Department of Industries, 2014)

Figure 3.1: MSME's economic contribution

SSIs have been observed to play an important role in minimizing the problems of local unemployment by generation of local level employment with lower investment. Small scale driven industrialization is hence essential for rural areas because majority of the population resides there. The economic development of any nation primarily seems to depend upon the establishment of industrial base. SSI sector comprises 95 per cent of the total industrial units in the country. The performance of the small-scale sector seems to have a direct impact on the growth of the overall economy in terms of number of units, production, employment and exports. It may help to understand its role in the economic development of the country. The chapter highlights the performance of small scale industries and examines the inter-relationship among variables plus the functional relationship between variables. The cumulative annual growth rate and average of percentage change value are applied to calculate and

compare the performance between two periods. The correlation coefficient is used to find out the inter-relationship among variables.

The previous studies (Alom, 2016) tried to establish the performance analysis on the said variables SME's like Production, Number of units, employment, exports, investment and sickness, and finally on Amount outstanding. For the growth & performance analysis, we are using the basic statistics techniques are CAGR (compound annual growth rate), Mean, and Standard deviation. Bar graph is another technique we will be using to understand the trend analysis. The CAGR measures the change in a variable over the periods, with formula as mentioned here:

1. CAGR 
$$(T_n, T_0) = [(V_{T_n}/V_{T_0})^{1/T_n-T_0}] - 1.$$

CAGR stands for Cumulative Annual Growth Rate, V stands for value,  $T_n$  is the value of current period and  $T_0$  is the value of initial period,  $T_{0-1}$  is the previous value of  $T_n$ , N is number of observations, here N = 11,  $T_n$  = 2018-2019,  $T_0$  =2008–2009 and so forth (P. Kumar, 2014). CAGR in % is conversion of actual outcome of CAGR into percentage. Which is more useful for comparative analysis among all performance measured variables. The other concepts like the Average or Arithmetic Mean ( $\bar{x}$ ) and Standard Deviation (s) techniques are best analysis of average performance and their variability.

2. 
$$\bar{x} = \frac{\sum x}{xi}$$
,  $\bar{x}$  is arithmetic mean,

 $\sum x$  is sum of the observations of variable x (Production, units, etc.)

xi is no. of x values .., i.e. 40 years

3. 
$$s = \sqrt{\frac{1}{n-1}\sum(x - \bar{x})^2}$$
, s is Standard deviation,

 $\Sigma$  is sum of the squared deviations from the mean

 $\bar{x}$  is Arithmetic mean of x values

$$n-1$$
 is degrees of fredom

4. One-dimensional bar graph analysis for the understanding of trend movement of performance variables. This is being discussed in table below.

As per the CAGR in percentage from table as illustrated, exports only showing at double-digit growth per annual, still there is need for expansion of all these variables performances because of this SME sector is intended to accommodate more number of employment and regional balanced growth and development. The employment variable of SME stands at 3.8 % growth per annual, which is more concerned factor because the employment is growing at weak percentage where it should be more than other variable performance. Interestingly, the exports of SME's are growing rapidly at 10.65 % per annual it tells that SME's commodities are being demanded more from outside countries. Contrastingly, the amount outstanding at banks is growing at 9.85 % of CAGR which very alarming rate. The CAGR in percentage of Investment variable is reflecting that 6.47 which is very low. India as a developing nation should promote the SME's sector and encourage investment growth at least 30% per annual. The sickness unites growing at 3.5 %, which is mainly due to lack of attention towards improvement regarding the amenities for the sectorial development by the government.

Table 3.1: Performance of MSMEs Sector in India during 2008-19 to 2018-19

Year	Total No. of	Fixed	Production	Employment	MSME
	working	Investment	(Rs. Crore)	(Lakh	Exports
	MSMEs (in	(Rs. Crore)		persons)	(Rs.Cr)
	lakh)				
2008-09	393.7	621753	880805	880.84	193171
2009-10	410.8	693835	982919	921.79	206573
2010-11	428.73	773487	1095758	965.15	220392
2011-12	447.73	853139	1176939.36	1011.8	252258
2012-13	467.56	967154	1285687.46	1061.52	279351
2013-14	488.63	996236	1355342.92	1082.63	315685
2014-15	512.23	1043243	1442653.25	1123.57	356432
2015-16	554.34	1093376	1523392.68	1167.63	398364
2016-17	586.82	1137674	1632642.34	1236.42	452726
2017-18	633.9	1186432	1734296.76	1278.89	536438
2018-19	684.14	1238915	1814246.09	1327.68	587821

Source: Compiled from Ministry of MSME Annual Reports

Table 3.2: Sickness Position of MSME during 1990 -2015

Sick industries					
Year	Units in nos.	Amount Outstanding in Billions			
1990	218828	24.27			
1991	221472	27.92			
1992	245575	31.01			
1993	238176	34.43			
1994	256452	36.8			
1995	268815	35.47			
1996	262376	37.22			
1997	235032	36.09			
1998	221536	38.57			
1999	306221	43.13			
2000	304235	46.08			
2001	249630	45.06			
2002	177336	48.19			
2003	167980	57.06			
2004	138811	52.85			
2005	138041	53.8			
2006	126824	49.81			
2007	114132	52.67			
2008	85187	30.82			
2009	103996	36.19			
2010	77723	52.33			
2011	90141	52.11			
2012	85591	67.9			
2013	220492	124.42			
2014	456771	276.22			
2015	528300	253.88			
CAGR	0.035883961	0.098455199			
CAGR in %	3.588396104	9.845519853			
Mean	213064.3462	63.24230769			
ST.Dev	106792.1342	61.20761418			

As evident, the sickness probability is on the rise as registered SSI units are failing consistently to repay the dues and loan in time an amount outstanding is on the rise.

Table 3.3: CAGR in % for growth components variables

Growth and Performance analysis of MSME, 2008-09 to 2018-2019							
Variables	CAGR	CAGR in %	Mean	St. Dev			
Production in billion	0.07	6.79	1356789.35	305758.69			
MSME Units in millions	0.05	5.15	509.87	94.69			
Employment in millions	0.04	3.80	1096.17	146.61			
Exports in millions	0.11	10.65	345382.82	134797.52			
Investment in crore	0.06	6.47	964113.09	204448.28			
Sickness in numbers	0.035884	3.59	213064.3	108907			
<b>Amount Outstanding</b>	0.098455	9.85	63.24231	62.41976			
In billions							

Source: self-devised

The data on Investment analysis covered in-between 2008-09 to 2018-2019. In addition, data on Sickness and Amount Outstanding are available from 1990 to 2015,

CAGR in % for growth components variables. 12.00 10.00 8.00 CAGR% 6.00 4.00 2.00 0.00 Total No. of Fixed **Employment MSME** working Production Investment (Lakh **Exports** MSMEs (in (Rs. Crore) (Rs. Crore) persons) (Rs.Cr) lakh) ■ Series 1 5.15 6.47 6.79 3.80 10.65 SME GROWTH COMPONENTS

Figure 3.2: SME Growth components

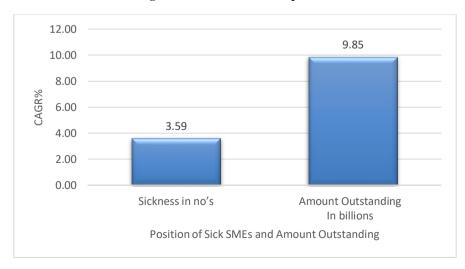


Figure 3.3: Position of sick SMEs and amount outstanding

#### 3.2 MSME Growth trends

As evident in the figure below, there has been a consistent increase in the number of registered MSME units in the nation. The graph shows that the total number of MSMEs increased from 393.70 lakh units in 2008-09 to 684.14 lakh units in 2018-19.

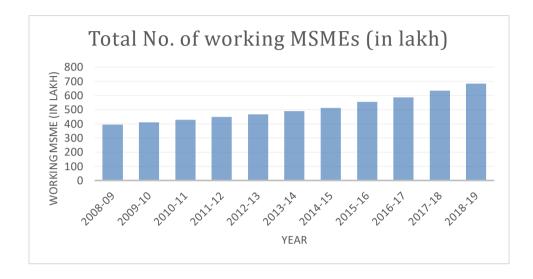


Figure 3.4: Number of Enterprises in MSME Sector

The small-scale industries sector plays a vital role in the growth of the country. It seems to contribute almost 40% of the gross industrial value added in the Indian economy. There has been a steady growth in the MSME production during 2008-09 to 2018-19. The graph reveals that the MSME production increased from Rs. 880805 Crore in 2008-09 to Rs. 1814246.09 Crore in 2018-19.



Figure 3.5: Production in MSME Sector

SSI Sector in India creates largest employment opportunities for the Indian populace, next only to Agriculture. As can be seen that the employment generation has been

rising from 2008-09 to 2018-19. It increased from 880.84 lakh in 2008-09 to 1327.68 lakh during 2018-19.



Figure 3.6: Employment in MSME Sector

SSI Sector plays a major role in India's present export performance. 45%-50% of the Indian Exports is contributed by SSI Sector. From the figure below we can conclude that the contribution of SSI's in the form of increased exports has continued. Though the rate of growth has been a concern but can be accelerated if the efforts were targeted at in a well desired manner. The value of exports of the MSMEs sector increased from Rs. 193171 crore in 2008-09 to Rs. 587821 crore in 2018-19 registering an increase of 304 percent.

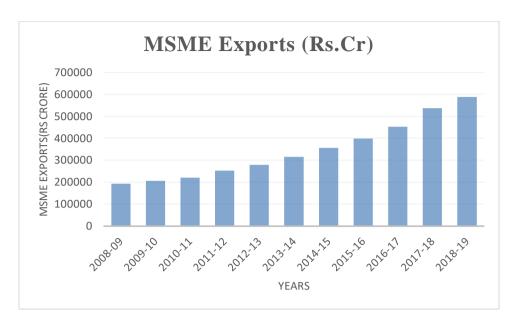


Figure 3.7: Exports in MSME Sector

All the other growth components like SSI units and its production value and their exports value etc. endogenously depended on the amount of capital investment gone onto that sector. As per the given below figure it is noticed that the fixed investment as seen as increasing trend from the year 2008-09 to 2018-19. However, the SSI is being neglected, despite it has a great impact on employment expansion it got very negligible capital allocations.



Figure 3.8: Fixed investment in MSME Sector

As per the data compiled by the Reserve Bank of India (RBI) from the Scheduled Commercial Banks, the position regarding number of sick Micro, Small and Medium Enterprises (MSMEs) in the country from 1990 to 2015. The number of sick MSME units in the country has come down from the year 1999-2000 to 2011-12. In the later years it shows in increasing. The reason may be increasing in the large scale sector as these enterprises not compete with large scale sector.

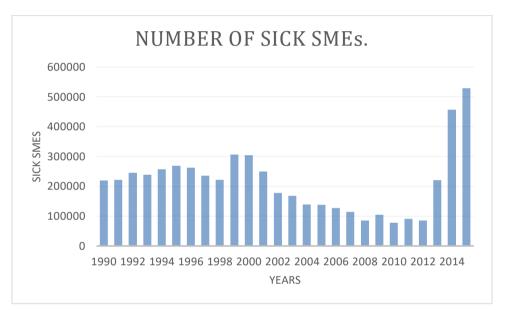


Figure 3.9: Number of Sick SMEs

In empirical terms, there seems to be a positive relationship between the amount outstanding with scheduled commercial banks and Sick SMEs. Here also we can conclude that the registered Sick SMEs decreased until 2011-12 and it was followed by the amount outstanding. The trend of Sick SMEs and amount outstanding are both showing upward movement from 2012-13.

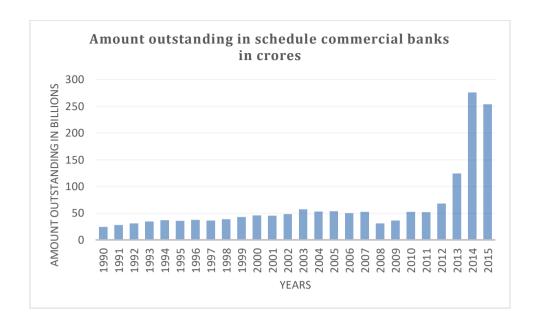


Figure 3.10: Amount outstanding in schedule commercial banks in crore

From the above study we can make some inferences that the Indian Small sector industries have the potential to enhance the growth rate of the GDP of the economy. Yet there is absolute lack of well-targeted effort from the higher authorities to reap the economic benefits of the SSI sector. Since the small scale units do not need huge capital and skill investments at the initial, thus such units can be feasible for the employment generation for marginal sections of the society. Thus on one hand they may reduce the unemployment burden in the economy and at the same time may decrease the income inequality by creating employment to the large section of population in the economy. One may also find the lacuna in the growth of the small scale units over the period of reforms and post reforms. Though the post reform period showed some improvement, but it is not too much spectacular. Though the sector is noticed prominent growth, but the growing sick units alarmingly posing a threat of raising amount outstanding with banks which may create financial disturbances in the economy.

#### 3.3 MSME in national perspective

As per the National Sample Survey (NSS) 73rd round, conducted by National Sample Survey Office, Ministry of Statistics & Program Implementation during the period 2015-16, there were 633.88 lakh unincorporated non-agriculture MSMEs in the

country engaged in different economic activities (196.64 lakh in Manufacturing, 230.35 lakh in Trade and 206.84 lakh in Other Services and 0.03 lakh in Non-captive Electricity Generation and Transmission,) excluding the MSMEs registered under (a) Sections 2m(i) and 2m(ii) of the Factories Act, 1948, (b) Companies Act, 1956 and (c) Construction activities falling under Section F of National Industrial Classification (NIC) 2008. Table 2-2 and Figure 2-1shows the distribution of MSMEs activity category wise.

Table 3.4: Estimated Number of MSMEs (Activity Wise)

Activity Category	Estim	Share (%)		
	Rural	Urban	Total	
Manufacturing	114.14	82.50	196.65	31
Trade	108.71	121.64	230.35	36
Other Services	102.00	104.85	206.85	33
Electricity	0.03	0.01	0.03	0
All	324.88	309.00	633.88	100

Source: MSME Annual Report 2017-18

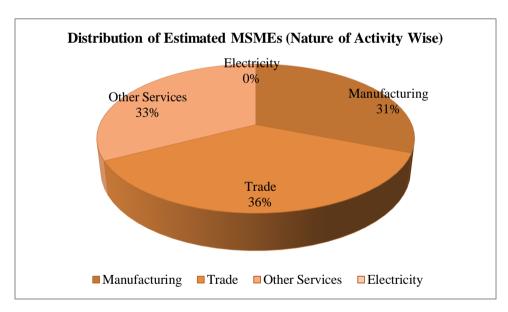


Figure 3.11: Activity wise distribution of MSMEs

It is evident that the 31% MSMEs were observed to be engaged in "Manufacturing activities", while 36% were in "Trade" and 33% in "Other Services". Again out of 633.88 estimated numbers of MSMEs, 324.88 lakh MSMEs (51.25%) were in rural area and 309 lakh MSMEs (48.75%) were in the urban areas as is evident from illustration here.

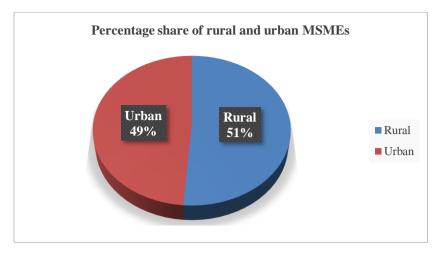


Figure 3.12: Urban-Rural distribution of MSMEs

#### **State-wise Distribution of estimated MSMEs**

In terms of state wise distribution of MSMEs in India, the state of Uttar Pradesh seems to possess the largest number of estimated MSMEs with a share of 14.20% of MSMEs in the country. The state of West Bengal comes as close second with a share of 14%. The top 10 States together accounted for a share of 74.05% of the total estimated number of MSMEs in the country as illustrated here.

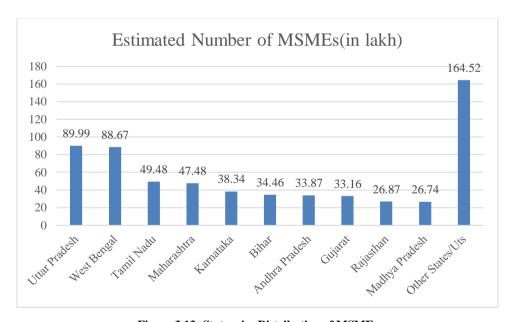


Figure 3.13: State-wise Distribution of MSMEs

#### **State-wise Distribution of enterprises**

Table 3.5: State wide distribution of MSME units

	State/UT	Estimated Number of MS	MEs
		Number (in lakh)	Share (in %)
1	Uttar Pradesh	89.99	14
2	West Bengal	88.67	14
3	Tamil Nadu	49.48	8
4	Maharashtra	47.48	8
5	Karnataka	38.34	6
6	Bihar	34.46	5
7	Andhra Pradesh	33.87	5
8	Gujarat	33.16	5
9	Rajasthan	26.87	4
10	Madhya Pradesh	26.74	4
11	Total of above ten States	469.36	74
12	Other State/UTs	164.52	26
13	All	633.88	100

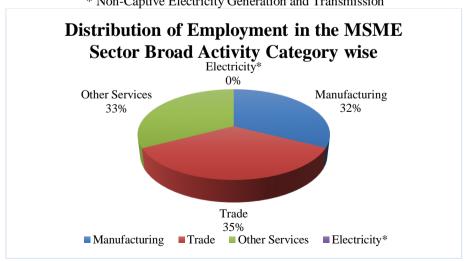
As per the National Sample Survey (NSS) 73rd round conducted during the period 2015-16, MSME sector has been creating 11.10 crore jobs (360.41 lakh in Manufacturing, 387.18 lakh in Trade and 362.82 lakh in Other Services and 0.07 lakh in Non-Captive Electricity Generation and Transmission) in the rural and the urban areas across the country.

Table 3.6: Employment generation across rural and urban regions

Activity		Employment (in la	Employment (in lakh)	
Category	Rural	Urban	Total	
Manufacturing	186.56	173.86	360.41	32
Trade	160.64	226.54	387.18	35
Other Services	150.53	211.69	362.22	33
Electricity*	0.06	0.02	0.07	0
All	497.78	612.10	1109.89	100

Source: MSME Annual report 2017-18

<sup>\*</sup> Non-Captive Electricity Generation and Transmission



## Comparative Analysis between Fourth All India MSME Census (2006-07) and NSS 73rd Round (2015-16)

Comprehensive information on the MSME Sector can be obtained from both Fourth all India MSME Census was held in 2006-07 and the NSS 73rd Round (2015-16). Being held almost 10 years' time gap, a comparison of the two sets of results can capture the growth of the basic parameters of the MSME Sector over a decade.

Table 3.7: Growth of MSMEs

Parameters	NSS 73rd Round#, 2015-16	Fourth All India Census of MSMEs, 2006-07(Figures in lakh)	Compound
No. of MSMEs	633.88	361.76	6.43
(Total)			
Manufacturing	196.65	115.00	6.14
Services	437.23	246.76	6.56
<b>Employment (Total)</b>	1109.89	805.24	3.63
Manufacturing	360.42	320.03	1.33
Services	749.47	485.21	4.95

Source: MSME Annual Report 2017-18

#### 3.4 Sickness position in MSMEs

As per provisional data compiled by the Reserve Bank of India (RBI) the number of sick micro, small and medium enterprises (MSMEs) in March, 2015 was 5, 16,619. The State/Union Territory-wise position regarding the number of sick units and loan outstanding for last three years is given:

Table 3.8: Sickness position in India perspective

(No. of units in actual, Amt. in Rs. Crore)

	Mar-13	Mar-13		Mar-14		Mar-15	
State/ Union Territory	No. of Units	Amount O/s	No. of Units	Amount O/s	No. of Units	Amount O/s	
A & N Islands	68	1.59	98	6.48	111	35.54	
Andhra Pradesh	12461	1268.73	42618	2437.29	43437	2429.05	
Arunachal Pradesh	75	8.04	158	9.72	345	14.17	
Assam	1318	201.90	5334	332.49	4500	511.71	
Bihar	5705	395.41	16156	371.17	12194	433.61	
Chandigarh	659	257.27	1349	267.29	1725	911.75	

Total Sayman http:	222204	16639.89	468397	32869.92	516619	33378.17
West Bengal	11517	1632.06	23062	2615.43	38835	3814.33
Uttar Pradesh	19104	1570.86	63355	6847.38	77761	2494.98
Uttarakhand	4572	179.69	15810	1848.16	3446	195.96
Tripura	16	0.15	2166	44.85	5196	259.07
Tamil Nadu	23468	1814.47	44121	2844.41	44719	3650.73
Sikkim	63	4.09	215	31.59	66	2.60
Rajasthan	20343	289.08	27791	557.58	23226	553.48
Punjab	3747	765.47	6575	1035.59	13326	1847.04
Puducherry	190	7.68	1913	115.14	1635	59.66
Orissa	11775	436.03	18337	748.88	18866	914.62
Nagaland	147	11.13	455	22.40	468	15.71
Mizoram	159	5.44	48	5.58	25	2.65
Meghalaya	69	2.07	158	7.01	152	7.80
Manipur	148	1.70	353	9.65	3688	47.88
Maharashtra	32388	3137.91	43411	4598.99	50006	4837.61
Madhya Pradesh	11291	504.86	17678	509.40	18151	607.60
Lakshadweep	0	0.00	5	0.13	0	0.00
Kerala	8710	210.65	21807	487.28	26248	716.11
Karnataka	15845	939.84	34212	1294.96	38438	1256.69
Jharkhand	5031	201.47	8234	527.68	11095	595.10
Jammu & Kashmir	1327	78.17	2188	184.42	2332	276.65
Himachal Pradesh	1954	236.20	2242	247.64	2075	189.45
Haryana	3351	468.10	9308	711.90	10867	745.83
Gujarat	20615	836.56	48304	1790.38	49003	2601.02
Goa	194	30.63	1354	110.80	2329	200.43
Delhi	2845	1047.38	4658	2040.68	6066	2905.52
Daman & Diu	25	3.74	19	39.46	36	4.47
Dadra & Nagar Haveli	22	1.82	91	8.63	61	9.51
Chattisgarh	3002	89.70	4814	159.47	6191	229.84

Source: http://pib.nic.in/newsite/PrintRelease.aspx?relid=123629

According to the state-wise data on Sick Micro, Small and Medium Enterprises (MSMEs) as on March 31, 2015 compiled by the Reserve Bank of India (RBI); Uttar Pradesh has the highest number of sick MSMEs i.e. 77761 sick MSMEs, while Maharashtra is in second place with 50006 sick MSMEs, Gujarat at third place with 49003 sick MSMEs, Tamil Nadu and Andhra Pradesh at fourth and fifth place with 44719 and 43437 respectively. Meanwhile, according to the data, the states including Sikkim, Mizoram, Lakshadweep, Daman & Diu, and Dadra & Nagar Haveli have less than 100 sick units. As the international and domestic business environment underwent major changes, a swathe of Indian manufacturing MSMEs faced an uphill task to keep their business afloat. Sickness has become endemic in certain quarters of the MSME manufacturing sector.

#### 3.5 MSME Sickness in Indian States

In the process of industrial development, a number of small units have fallen sick in India. Further, the magnitude of industrial sickness in the country has become alarming in recent years. Industrial sickness has become a growing endemic disease, particularly in the small-scale sector. Industrial sickness ruins the objectives of the MSME. There are many reasons for sickness. Main causes are internal causes and external causes. Internal causes are a selection of defective plant and machinery, faults at planning and construction stage of the project, entrepreneurial incompetence, financial problems, labor problems, management problems like production management, marketing management, personnel management etc, External causes are changes in government policies and political decisions, demand and credit constraints, power cuts, erratic supply of inputs etc. Due to these internal and external causes industrial sectors having different adverse effects. Some of them are wastage of scarce resources, losing employment opportunities, labor unrest, great impact on prospective investors and entrepreneurs, loss of revenue to the government and finally it will show an adverse impact on related units. Hence the need arises for studying the dimensions of industrial sickness, its root causes to avert it. In this context, the study has undertaken on determining the factors causing industrial sickness in three Districts of Andhra Pradesh.

Micro, Small and Medium Enterprise (MSME) sickness is pervasive in India. Of the 3.35 million (2014) registered MSMEs in India, approximately 13.6% of the units were sick. However, estimates suggest that registered units' account for less than 7% of the total MSMEs in the country. Even if a similar percentage of incidence of sickness e is applied on the unregistered MSMEs, the total number of sick units would amount to 6.6 million (2014).

The problem has been even more severe in Andhra Pradesh where Reserve Bank of India (RBI) reports 24% of the 106,000 units to be sick in 2014. The RBI findings are further validated by proxy evidence from the National Small Industries Corporation (NSIC)-CRISIL study (2014) in which 55 of the 276 MSME units (20%) credit rated across Andhra Pradesh were found to be sick. Sickness in India is a dangerous problem for the economy. Sickness covers all types of units like small scale, medium and large scale sector. It is a matter of crores of rupees related to the nations directly or indirectly. It is a phenomenon that shows an adverse effect on employment, availability of goods and services and the prices of those things rise up.

According to the All India Census of SSI units 2001-2002 (prior to the MSME Act 2006), industrial sickness in Andhra Pradesh was as high as 38%. Since then, the definition of MSME and sickness has gone through iterations. The analysis presented adheres to the definitions as per the MSME Act of 2006.

In 2014, there were a total of 106,552 MSME in the thirteen districts of Andhra Pradesh<sup>3</sup>. The RBI statistics published in March 2014 identified 41,845<sup>4</sup> sick MSME units in undivided Andhra Pradesh. In absence of any new publications since March 2014, a proxy estimation is made by splitting the sick units in the same proportion between Telangana and Andhra Pradesh as the number of MSMEs. Of the total 169,602 MSMEs in Andhra Pradesh combined (2014), 62.8% were located in Andhra Pradesh while the rest were present in Telangana<sup>5</sup>. Therefore, using the same ratio, the number of sick units in Andhra Pradesh can be estimated at 26,289, which accounts for 6% of the sick units in the country.

<sup>&</sup>lt;sup>3</sup> DIC – AP Industries

<sup>&</sup>lt;sup>4</sup> Reserve Bank of India: Lok Sabha Question on MSME Sickness 8th December, 2014. Retrievable from (http://pib.nic.in/newsite/PrintRelease.aspx?relid=112836)

<sup>&</sup>lt;sup>5</sup> Telangana MSME units in 2014 – 63,050 (www.industries.telangana.gov.in)

Table 3.9: Number of Sick Industrial Units

Total Registered Units in	Andhra Pradesh* Registered Units 2014 1,06,552 (62.83%)	Total Sick Units in Undivided Andhra Pradesh	Sick Units in Andhra Pradesh* 26,289(62.83%)
Undivided Andhra Pradesh 1,69,602	Telangana Registered Units 2014 <b>63,050 (37.17%)</b>	2014 41,845	Sick Units in Telangana <b>15,556 (37.17%)</b>

<sup>\*13</sup> Districts of Andhra Pradesh

In 2014, more than 24% of registered units in Andhra Pradesh were classified sick, which was the highest amongst Maharashtra, Gujarat, Kerala, Karnataka and Tamil Nadu. Considering the four southern states, in percentage terms, the incidence of sickness in Andhra Pradesh is 2.5, 2 and 4 times more than Kerala, Karnataka and Tamil Nadu respectively. In order to assess the factors behind MSME sickness, the study has undertaken in three selected Districts of the Andhra Pradesh.

#### 3.6 Districts wide sick units in Andhra Pradesh

In terms of district wide sick units in Andhra Pradesh, East Godavari, West Godavari and Krishna districts figure as possessing maximum sick units with more mandal based closed units, resulting into substantial percentage of total units which were closed across the last fiscals.

Table 3.10: District wide illustration of Sick Units

District	No. of units	Mandals with closed units	Closed units	Percentage of total units which are closed	Share of closed units with respect to the total number of closed units
Srikakulam	848	36	342	40.33	7.02
Vizianagaram	341	25	120	35.19	2.46
Visakhapatnam	1231	19	126	10.24	2.59
East Godavari	1175	49	474	40.34	9.73
West Godavari	925	34	345	37.3	7.08
Krishna	1590	38	233	14.65	4.78
Guntur	3002	42	1027	34.21	21.08
Prakasam	1395	38	540	38.71	11.08
Nellore	644	30	156	24.22	3.2
Kurnool	1625	30	659	40.55	13.53
YSR Cudappah	673	29	281	41.75	5.77
Ananthapur	740	34	342	46.22	7.02
Chittoor	870	44	227	26.09	4.66
Total	15059	448	4872	32.35	100

Across East Godavari, the 474 industrial units are closed, whereas across West Godavari and Krishna districts, 345 and 233 industrial units are closed respectively. The data revealed that out of 15059 sick units, 4872 industrial units (nearly 32 per cent) of the total installed capacity is witnessing closure or industrial failure. As per latest data, the industrial sick units across the geography of state are on the verge of consistent sickness and number of sick units is on a persistent rise. As per recent report on Industry, Industrial sickness problem is more pervasive across state than ever before. The rampant increase in number of sick units; pose a great problem to macro-economic stability and micro economic linkages. In 2014, 14 per cent of the registered SSI units were reported to be sick yet in 2016 a sizable 32 per cent were reportedly under the verge of industrial sickness, loss of market orientation or subjective ability to meet expenses and declined ability to pay off the loan on the books. The study by department of Industry revealed that internal factors responsible for decrease in economic viability were: lack of detailed product and project research, lack of abilities, passion and motivation, limited knowledge, absence of support and lack of orientation amongst the promoters. In case of external factors, the research identified unsupportive approach of banks, degrading unit-bank relationships, infrastructure connectivity, and inconsistent access to resources and critical inputs, unskilled labor and frequent policy changes; as some of the obvious reasons.

S.	Causes	Private	Sector	Joint Se	ector Total		
No.		No.	%	No.	%	No.	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Α.	Internal Causes						
1.	Management Related						
	Deficiencies						
	(a) Managerial	371	79.10	52	66.67	423	77.33
	(b) Production	315	67.16	52	66.66	367	67.09
	(c) Financial	300	63.97	53	67.95	353	64.53
	(d) Marketing	216	46.06	35	44.87	251	45.88
2.	Labour & Indust-						
	rial Relations	257	54.80	23	29.49	280	51.19
3.	Cost-Overruns						
	Project Planning & Implementation	196	41.79	42	53.84	238	43.51
В.	External Causes						
1.	Infrastructural Constraints	183	39.02	38	48.72	221	40.40
2.	Raw Material Problems	169	36.03	33	42.31	202	36.93
3.	Market constraints	202	43.07	28	35.90	230	42.05
4.	Government controls & policies	113	24.09	28	35.90	141	25.78
5.	Other Extraneous factors	43	9.17	11	14.10	54	9.87

Figure 3.14: Sector wide causes

Source: RBI

# 4 Profiles of Entrepreneur's, Enterprises and the selected Districts

#### 4.1 Introduction to chapter

This chapter explores the profile of the entrepreneurs, geographic spread of SSI driven entrepreneurship in Andhra Pradesh, role of local contexts as well as the status of the three districts across state of Andhra Pradesh.

#### 4.2 Geographic spread of SSI in Andhra Pradesh

Andhra Pradesh, the tenth largest State in India in terms of population, and seventh in terms of area, is endowed with rich natural resources & mineral wealth and boasts of the second longest coastline in the country. With visionary political leadership, strong government mandate, and proactive administrators, the State is poised to capitalise on its business-friendly policies, and robust physical, social and industrial infrastructure. Andhra Pradesh is poised to be among India's three best states by 2022, and a developed State by 2029.

In Andhra Pradesh, MSME sector contributed greatly towards economic growth and prosperity. Andhra Pradesh newly formed state where the employment problem is most acute and the development of MSME sector occupies important for solving this problem. It also contributes towards state needs, exports and foreign exchange earnings.

#### The growth trajectory of MSMEs in Andhra Pradesh

- There were 90,122 MSMEs in AP in 2014.
- The number rose to 1,10,122 MSMEs by 2017.
- Total investment Rs. 26,000 crore
- Investment during the last three years —Rs. 9,418 crore
- Total employment generation —more than 9 lakh jobs
- Employment generated during the last three years –2.16 lakh
- Year on Year (YoY) growth 87% new units

- 31% additional investment
- 59% employment generation.

The State has accorded top priority to industrial and infrastructure growth and intends to position the State as the most preferred destination for investors by providing favorable business climate, excellent infrastructure, good law and order, and cordial industrial relations. The Government has introduced various investor-friendly policies for different sectors to facilitate the availability of resources, provide conducive industrial environment, develop state-of-the-art infrastructure, foster innovation and create employment opportunities. Andhra Pradesh has already made an impact through its investor-friendly initiatives by being ranked as the first best state in the country on Ease of Doing Business as per the report of the World Bank for 2016, and the second rank in the 2015 survey. The State has put in place a Single Desk portal to provide clearances/approvals within 21 working days to set up an industry in the state. It plans to reduce the time to 14 working days.

#### **MSME Sickness in Andhra Pradesh**

In the process of industrial development, a number of small units have fallen sick in India. Further, the magnitude of industrial sickness in the country has become alarming in recent years. Industrial sickness has become a growing endemic disease, particularly in the small-scale sector. Industrial sickness ruins the objectives of the MSME. There are many reasons for sickness. Main causes are internal causes and external causes. Internal causes are a selection of defective plant and machinery, faults at planning and construction stage of the project, entrepreneurial incompetence, financial problems, labor problems, management problems like production management, marketing management, personnel management etc, External causes are changes in government policies and political decisions, demand and credit constraints, power cuts, erratic supply of inputs etc. Due to these internal and external causes industrial sectors having different adverse effects. Some of them are wastage of scarce resources, losing employment opportunities, labor unrest, great impact on prospective investors and entrepreneurs, loss of revenue to the government and finally it will show an adverse impact on related units. Hence the need arises for studying the dimensions of industrial sickness, its root causes to avert it. In this context, the study has undertaken on determining the factors causing industrial sickness in three Districts of Andhra Pradesh.

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The problem has been even more severe in Andhra Pradesh where Reserve Bank of India (RBI) reports 24% of the 106,000 units to be sick in 2014. The RBI findings are further validated by proxy evidence from the National Small Industries Corporation (NSIC)-CRISIL study (2014) in which 55 of the 276 MSME units (20%) credit rated across Andhra Pradesh were found to be sick. Sickness in India is a dangerous problem for the economy. Sickness covers all types of units like small scale, medium and large scale sector. It is a matter of crores of rupees related to the nations directly or indirectly. It is a phenomenon that shows an adverse effect on employment, availability of goods and services and the prices of those things rise up.

According to the All India Census of SSI units 2001-2002 (prior to the MSME Act 2006), industrial sickness in Andhra Pradesh was as high as 38%. Since then, the definition of MSME and sickness has gone through iterations. The analysis presented adheres to the definitions as per the MSME Act of 2006. In 2014, there were a total of 106,552 MSME in the thirteen districts of Andhra Pradesh<sup>6</sup>. The RBI statistics published in March 2014 identified 41,845<sup>7</sup> sick MSME units in undivided Andhra Pradesh.

In absence of any new publications since March 2014, a proxy estimation is made by splitting the sick units in the same proportion between Telangana and Andhra Pradesh as the number of MSMEs. Of the total 169,602 MSMEs in Andhra Pradesh combined (2014), 62.8% were located in Andhra Pradesh while the rest were present in

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<sup>&</sup>lt;sup>6</sup> DIC – AP Industries

<sup>&</sup>lt;sup>7</sup> Reserve Bank of India: Lok Sabha Question on MSME Sickness 8th December, 2014. Retrievable from (http://pib.nic.in/newsite/PrintRelease.aspx?relid=112836)

Telangana<sup>8</sup>. Therefore, using the same ratio, the number of sick units in Andhra Pradesh can be estimated at 26,289, which accounts for 6% of the sick units in the country.

Total Registered	Andhra Pradesh*	Total Sick Units	Sick Units in
Units in	Registered Units 2014	in Undivided	Andhra Pradesh*
Undivided	1,06,552 (62.83%)	Andhra Pradesh	26,289(62.83%)
Andhra Pradesh	Telangana Registered	2014	Sick Units in
1,69,602	Units 2014	41,845	Telangana
	63,050 (37.17%)		15,556 (37.17%)

<sup>\*13</sup> Districts of Andhra Pradesh

In 2014, more than 24% of registered units in Andhra Pradesh were classified sick, which was the highest amongst Maharashtra, Gujarat, Kerala, Karnataka and Tamil Nadu. Considering the four southern states, in percentage terms, the incidence of sickness in Andhra Pradesh is 2.5, 2 and 4 times more than Kerala, Karnataka and Tamil Nadu respectively. In order to assess the factors behind MSME sickness, the study has undertaken in three selected Districts of the Andhra Pradesh.

#### 4.3 Present Status of Small Scale Sector of Andhra Pradesh

#### 4.3.1 East Godavari Industry profile

The small scale sector in East Godavari owes its existence to the locally available raw materials and the expertise. As per the theoretical perspective of the impact of the local contexts on the entrepreneurship process and phenomenon (Hindle, 2010), the local contexts constrain or inflate the potential for regional entrepreneurship and aspirations. The local contexts in East Godavari district in Andhra Pradesh geography, contains more of the elements that ultimately constrain the entrepreneurial forces. The institutional resources namely the physical resources, human resources and property based rights constitute the essence of the entrepreneurial activity (Hadi, 2015) in developing and developed economies alike.

The local contexts in East Godavari thus shapes the local entrepreneurship amongst the small scale promoters by influencing their sense of evaluation, commitment to as

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<sup>&</sup>lt;sup>8</sup> Telangana MSME units in 2014 – 63,050 (www.industries.telangana.gov.in)

well as assessment of the contextual elements that ultimately shape the sustenance and the survival prospects (Hindle, 2010) for the firm under operation in such conditions. The most prominent small scale enterprises are observed to be concentrated across the clusters of tiles manufacturing, rice and poha processing units, rice and flour mills, water packaging units, coconut processing units, graphite processing, water based products, tile manufacturing, textile, rice and flour mills, manufacturing of corrugated boxes, manufacturing of cashew products and the manufacturing of bricks. In other words, the regional district based industrial profile exhibits the dominant impact of the local physical resources and the human capital on the intensity and the scope of the local entrepreneurial action and aspirations.

As per the District industry centre based cluster observatory noting, the most of the small scale based units in East Godavari district primarily rely on the locally available resources and with regard to the market access, often face the problems of the lack of contracts, mishandling of the operational and administration processes, possess untrained and poor quality of staff as well as often face the problem of the poor financing of the venture across the startup and the operations phase.



The statistical inputs from across the MSME and the economic survey as well as state based reports from the PHD Chambers of Commerce and CII further point towards the incidence of the impact of the credit off-take and formal credit access as determining the survival and self-sustenance of the small scale units. The units exhibit substantial institutional barriers to sustainable innovation and commercially viable marketing of the produce.

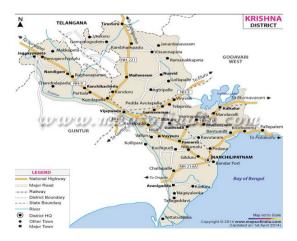
#### 4.3.2 West Godavari Industry Profile

As per the district industry center publication, the region is home to prominent small scale industries and units that specialize in the task of manufacturing of the paper tray, paper packaging, casing, bio fuel, ceramics, cashew processing, rice mills, manufacturing of fire bricks & refractory as well as ice manufacturing. These activities entail low capital intensity yet labor intensity is high owing to manual work and lesser use of process related technology.



#### 4.3.3 Krishna Industry Profile

As per the profile available with the district industry center, the region houses paper processing units, coconut processing units, rice based products, rice mills, manufacture of refractory bricks, blocks tiles and similar refractory ceramic constructional goods, units manufacturing semi-finished of plastic products, units manufacturing fruit or vegetable juices and their concentrates, squashes and powder, packaged drinking water.



#### 4.3.4 Micro Small and Medium Enterprises established

The rate of establishment of Micro Small and Medium Enterprises was analyzed across the years and differences were observed vis a vis number of units, investment being undertaken and employment being generated in state perspective.

Table 4.1: Micro Small and Medium Enterprises established

Micro Small and Medium Enterprises established				
*7	** •	· · · ·		
Year	Units	Investment	Employment	
	(Nos.)	(Rs. Crore)	(Nos.)	
1991-92	7706	111	67450	
1992-93	6201	155	41454	
1993-94	5612	157	46362	
1994-95	4435	185	40899	
1995-96	4123	191	33836	
1996-97	4970	211	37900	
1997-98	4935	297	49999	
1998-99	4997	552	58253	
1999-00	4195	539	39664	
2000-01	2124	327	25433	
2001-02	1612	261	19211	
2002-03	1641	235	24293	
2003-04	1573	204	21949	
2004-05	1632	266	24076	
2005-06	1267	245	15832	
2006-07	2440	886	36019	
2007-08	4209	2161	79258	
2008-09	4599	2628	85211	
2009-10	5101	4423	64844	
2010-11	8507	4905	104620	
2011-12	8464	4881	120435	
2012-13	2859	1554	52932	
2013-14	2403	1961.94	40778	
2014-15	2847	2019.27	42,396	
2015-16	7657	3948.25	1,00,521	
2016-17	6849	2542.3	89128	
2017-18	5920	2383	59103	
2018-19	10068	3443.57	93,240	
Mean	4605.214286	1488.2975	54110.57143	
ST. Dev	2384.432972	1569.569163	28072.17863	
CAGR	0.009594407	0.130510233	0.011631058	
CAGR in %	0.959440656	13.05102329	1.163105763	

Source: SOCIO ECONOMIC SURVEY-AP from 2012-13 to 2018-19

As per the CAGR in percentage from table as illustrated investment only showing at double-digit growth per annual, The Number of MSME units and employment stands at 0.95 and 1.16 % growth per annual, which is more concerned factor.

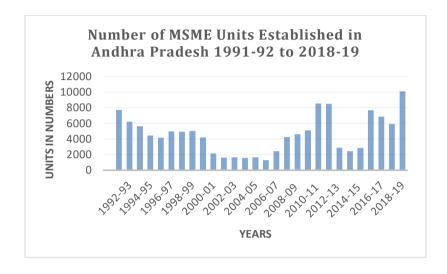


Figure 4.1: Number of MSME units established in Andhra Pradesh

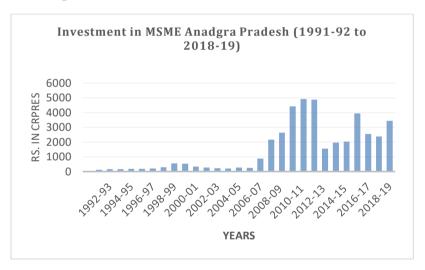


Figure 4.2: Investment in MSME Andhra Pradesh perspective

In similar prospect, the investment is also not being observed as rising consistently. The rate of investment is also exhibiting fluctuations and similar is the case with regard to employment generation with regard to MSME units in Andhra Pradesh as mentioned herein.

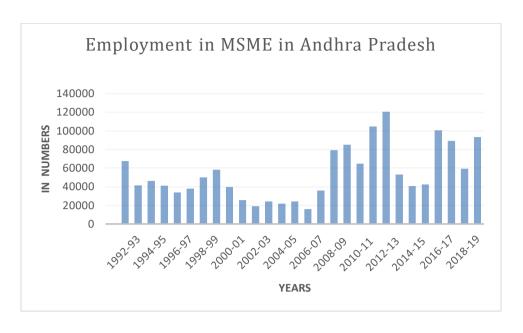


Figure 4.3: Employment generated in MSME in Andhra Pradesh

#### 4.4 Entrepreneurial Dimensions in Region: Influences on entrepreneurs

Amongst the "promoter driven influences" in regional perspectives, the promoter's own "lack of entrepreneurial skills or orientation" emerged as exhibiting maximum weightage of 43 percent, which points to substantial absence of orientation amongst the participating small scale industry promoters. The next weightage regarding probable cause of sickness in regional perspective was attributed to "faulty resource planning". The third next weightage was observed with regard to sheer "lack of occupational commitment". The promoter based "inappropriate management control" figured as contributing 7.6 percent to overall scale variance. In similar aspect, "inadequate capacity utilization" figured as contributing the least towards the promoter driven aspects of industrial sickness.

Amongst the regional "non-promoter" driven influences, lack of timely access to factor endowments was observed to drastically shaping the prospects for industrial sickness. The most of the participating respondents pointed to sizable lack of all-weather and all time access to essential inputs and raw materials and critical supplies. The "policy uncertainty" as ground level exhibited next maximum variance of 17.4, thus vindicating the role of factor in looming threat of industrial sickness. The factor of "infrastructural hassles" exhibited third maximum weightage exhibiting a variance of 13.2 per cent. The factor of "changes in economy" posted next maximum variance and least variance was observed with regard to factor of "credit institutional support".

In simpler words, policy uncertainty and lack of factor endowments seem to be leading to state of crisis in comparison with institutional credit support from banking and non-banking bodies.

With regard to outcomes, unit based" market orientation" and subsequent loss was observed to be exhibiting maximum weightage of 48.7 percent. In simpler words, the observed loss of "market orientation" seems to be leading to other observed outcomes and obvious sickness. The "unit-bank relationships" exhibited a variance of 21.9 percent and "failure risk" as variance of 14.1 percent respectively. The factor of "ability to meet expense" exhibited least variance of 3.7 percent.

#### 4.5 Socio-Economic and Motivational settings of Entrepreneurship

The aspect of "internal deficiencies" and "external dependencies" as perceived by the participating entrepreneurs varied tremendously across the three districts chosen for research. In view of the research objective to classify and quantify the "industrial sickness behavior", the entrepreneurs and their perceptions seem determinant. In terms of the impact of the "entrepreneur's formal training" on shaping of perceptions and relative unit based sickness, the promoters from across Krishna district were observed to be relatively higher with regard to no formal exposure or training. The entrepreneurs engaged in small scale businesses with some informal training were noticed across the district of West Godavari. In terms of unit owners, having formal training, a maximum of 30 respondents were observed across the West Godavari district. This in other words point to the state of seriousness and formal training as aspired by the entrepreneurs running the small scale units here in this district. The entrepreneurs seem to favor the formal training as part of their endeavors to establish the formal small scale venture across the vicinity of the Andhra Pradesh.

Table 4.2: District wide variations in Training across Entrepreneur

	East Godavari	West Godavari	Krishna
None	17	15	27
Informal	3	10	6
Formal	26	30	21

With regard to the district based variances across responding entrepreneurs with regard to the motivations, substantial differences across the districts were observed. The entrepreneurs from across the Krishna district were noticed as exhibiting awareness related gaps, responding entrepreneurs from across East Godavari district as exhibiting "incentive structure" as a motivation, responding entrepreneurs from across West Godavari district citing "boom in industry" as a reason to engage in small scale industry and respondents from East and West Godavari were high with regard to their cognizance of the "unemployment" as an reason for start of SSI based venture.

Table 4.3: District wide variations in Entrepreneur Motivations

	East Godavari	West Godavari	Krishna
Awareness of Gaps	10	15	16
<b>Incentive Structure</b>	13	11	12
Boom in Industry	11	17	16
No other options/ Unemployment	12	12	10

The cross tabulation across districts and motivations underlined the differences with regard to the rampant motivations. A sizable number of respondents from across East Godavari district favored the opening up of small scale unit only on the opinions and assumptions with regard to the available incentive structure. The responding small scale unit based promoters from across West Godavari direct were inclined more towards the assumptions of the boom in the industry, as a reason to enter into SSI unit establishment. The respondents from across Krishna district were intended to be favoring the awareness of market based gaps and the boom in industry as the respective causes for establishing the SSI unit. In West Godavari district a higher proportion of small scale entrepreneurs were observed to possess an experience of less than six months from amongst all the districts covered for the research.

**Table 4.4:** District wide variations in Entrepreneur Motivations

	East Godavari	West Godavari	Krishna
Since last Six Months	18	19	16
Since a Year	18	14	18
Between 2-5 Years	10	22	20

In a similar stance, the cross tabulations of the responses from across the entrepreneurial education and the districts revealed the presence of the significant differences as per the motives that guided and shaped the entrepreneurial intensity and endeavors. The entrepreneurs from across the East Godavari and West Godavari region were observed to be educated up to intermediate while establishing the small sale industry.

Table 4.5: District wide variations in Entrepreneur Education

	Up to Intermediate	Graduate	Postgraduate
East Godavari	36	7	3
West Godavari	43	3	9
Krishna	43	5	6

In a similar stance, the cross tabulations of the responses from across the entrepreneurial location and the districts revealed the presence of the significant differences as per the motives that guided and shaped the entrepreneurial intensity and endeavors. The entrepreneurs from across the East Godavari region were observed to be inclined towards the choice of location within the industrial cluster while establishing the small sale industry. Yet the entrepreneurs from across the West Godavari region and Krishna districts were observed to be more inclined towards the choosing the clusters while establishing the small scale unit.

Table 4.6: District wide variations in Entrepreneur Education

	Within Industry	Outside Industry	
	Cluster	Cluster	Total
East Godavari	26	20	46
West Godavari	29	25	54
Krishna	31	23	54

### 4.6 SSI unit profiling: East Godavari, West Godavari and Krishna

In terms of the profiling of the small scale industrial unit based characteristics, the district wide variations would be explored that might contribute towards the observed sickness behavior across the small scale units in Andhra Pradesh. As per the distribution of the tiles manufacturing units and water packaging units, the maximum responding units belonged to the West Godavari district. The research attracted a maximum of 18 units engaged in coir based manufacturing from across the Krishna district in Andhra Pradesh. The similar maximum number of units engaged in coconut based industries was also from the Krishna district.

Table 4.7: District wide variations in Entrepreneur's Industry

	East Godavari	West Godavari	Krishna
Manufacturing-			
Tiles/Packaged	15	21	15
Water			
Coir based	13	17	18
Coconut based	12	14	18
Agro Processing-	6	2	2
Rice, Grains	О	3	3

In a similar stance, the cross tabulations of the responses from across the entrepreneurial employee strength and the districts revealed the presence of the significant differences as per the employment offered across the region. The entrepreneurs from across the East Godavari region were observed to be more inclined towards the establishing the small sale industry with comparative employee strength of 10 or more than 10 employees. Yet the entrepreneurs from across the West Godavari region were observed to be inclined towards the employee strength of 20 or more than 20 across the small scale unit.

Table 4.8: District wide variations in Entrepreneur based number of employees

	East Godavari	West Godavari	Krishna
Upto 10 Employees	6	9	6
Between 10-20 Employees	20	20	28
More than 20 Employees	20	26	20

### 4.7 Chapter Summary

The chapter hence concludes that the profile area is limited to three select districts of Andhra Pradesh. The profile area includes the three districts namely East Godavari, West Godavari and Krishna. In terms of the profiling of the small scale industrial unit based characteristics, the district wide variations would be explored.

# 5 Factors leading to Industrial Sickness in SSEs: Factor Analysis and dimensional validity

### 5.1 Introduction

This chapter discusses the validity analysis of the scale based measures with regard to factors representing the promoter based inefficiencies, non-promoter based inefficiencies and the outcomes. The establishment of construct validity is essential to figure out the validity of outcomes.

# 5.2 Reliability Assessment

The scale based reliability assessment is essential for establishment of scale based internal consistency as well as examination of inter scale statistics across collect data. The CronBach alpha is a tool for assessment of the internal consistency of the scale that comprises multiple likert based sub scale items. The scale with sixteen sub scale items exhibited a cronbach alpha measure of the 0.898 reflecting substantial reliability across the constituent scale elements.

Table 5.1: Reliability Statistics: Internal promoter driven Inefficiencies

Reliability Statistics			
	Cronbach's Alpha		
	Based on		
	Standardized		
Cronbach's Alpha	Items	N of Items	
.898	.901	16	

The scale with twenty-two sub scale items exhibited a cronbach alpha measure of the 0.926 reflecting substantial reliability across the scale elements.

Table 5.2: Reliability Statistics: External non promoter driven dependencies

Reliability Statistics			
	Cronbach's Alpha Based on		
	Standardized		
Cronbach's Alpha	Items	N of Items	
.926	.927	22	

The scale with Nineteen sub scale items exhibited a cronbach alpha measure of the 0.916 reflecting substantial reliability across the scale elements.

Table 5.3: Reliability Statistics: Outcomes

**Reliability Statistics** 

	Cronbach's Alpha Based on	
	Standardized	
Cronbach's Alpha	Items	N of Items
.916	.931	19

### **5.3** Inter Scale Statistics

The column titled "corrected item-total correlation" reveals the manner in which each item correlates with the other questionnaire score. This test ascertains the cross –item dynamics and extent of inter item reliability examination. The test is used for the assessment of the internal consistency of the scale items and focuses on the interrelatedness of the sample of sub scale items. The homogeneity of the outcomes refers to the uni-dimensionality of the sub scale elements. This stage of reliability assessment reveals the relationship between the sub scale items and their respective impact on the total scale based correlation measure. The analysis further reveals the changes (upward or downward) in the total scale based correlation measure on account of the variances in responses to the sub scale items loading respectively across the hypothesized factors comprising the measurement scale. It's evident that with regard to the factor of entrepreneur's entrepreneurial orientation (EO), the need for discovering the additional non commercialized and non-fulfilled requirements of the customers is exhibiting high impact on the overall cronbach alpha measure. The majority of the responding entrepreneurs strongly disagreed with this statement which proves that the participating promoters rarely experiment or think about the prospects of developing a product in such an innovative manner that unrealized needs of the customers are also fulfilled.

Table 5.4: Inter-Item Statistics Reliability and Cronbach Alpha: Internal Inefficiencies

		Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlatio n
EO_1	We never value new strategies/plans even if we are not certain that they will always work	.886	.756
EO_2	We never encourage people in our unit to take risks with new ideas	.884	.768
EO_4	We never try to discover additional needs of our customers of which they are unaware	.883	.826
EO_7	There is no emphasis on R&D and technological leadership	.883	.785
EO_8	There is no willingness to adopt very competitive posture toward the competitors	.884	.810
RP_2	Lacks technological capabilities and equipment	.889	.637
RP_3	Lacks market Knowledge	.896	.477
RP_4	Lacks control and access to distribution channels	.905	.199
M_1	To what extent the past diversion of funds contributed to misfit and current state of affairs	.891	.594

M_2	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources	.886	.717
M_4	Does the inability and failure to extract maximum possible from the current employees leading to current state?	.885	.745
CU4	To what extent the installed machinery usage suffers on account of lack of professional knowledge	.891	.602
CU5	To what extent shortage of finance leads to reduced turnover	.891	.589
0_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	.903	.210
0_2	During the past year, I was, in general, incompetent to perform my work accurately and with few mistakes	.904	.222
0_3	During the past year, I was in general, incompetent to take prompt decisions with respect to my approach to work	.903	.240

Table 5.5: Inter-Item Statistics Reliability and Cronbach Alpha: External Inefficiencies

		Cronbach' s Alpha if Item Deleted	Correcte d Item- Total Correlati on
CE2	Firm's products are facing market based recession and lack of demand	.925	.391
CE4	The firm faces competition from the availability of the alternatives or substitutes	.926	.391
CE5	The price of product is stagnant for a longer time period	.925	.420
F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials	.922	.590
F_3	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity	.921	.638
<b>F_4</b>	To what extent the price related volatility and increased input costs impacted the productive capacity of the unit	.922	.594
F_5	To what extent the raw material shortages impact overall productivity	.922	.612
F_6	To what extent the non-availability of local labor impacts the productive usage?	.922	.607
F_7	To what extent the unit is under financed in terms of working capital and fixed asset acquisition	.921	.647
BCR_1	Bank loans are never easily available for us	.921	.652
BCR_2	Capital from suppliers or customers is never easily available for us	.922	.606
BCR_3	Capital from other sources is easily available for us	.921	.639
BCR_5	Relative to competitors we have no advantageous financial resources	.923	.543
PU_1	There is no provision of level playing field with fiscal and non fiscal incentives for small sector promotion, trade agreements, export promotion and tax holidays and duty rationalization	.923	.552
PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages	.921	.653
PU_4	Large number of rules and regulations for getting concession, subsidy and aid for industry establishment	.922	.622
PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor	.922	.581
PU_6	No waivers on stamp duty, registration charges, taxes, government charges for tender participation	.921	.668
INF_1	To what extent there was incomplete and poor quality access to power supply at your end	.924	.503
INF_2	How far and how occasionally you face transportation and communication problems at your industrial premises?	.922	.605
INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain inventories	.921	.660
INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units in state	.923	.576

The entrepreneur's perceptions of "factor endowments (F)" seem to matter the most and observed no sizable difference on the composite scale based reliability. With

regard to the aforesaid factor, the sub-items "To what extent you faced difficulty in procuring the raw matters that impact the productive capacity" and the "To what extent the unit is under financed in terms of working capital and fixed asset acquisition", lead to an observable decline in the wholesome scale based cronbach's alpha measure.

The entrepreneur's perceptions of "bank credit availability (BCR)" seem to matter the most and observed no sizable difference on the composite scale based reliability. The subjective deletion of the sub scale item "Capital from other sources is never easily available for us" was observed to lead to a marginal decline in the composite scale based cronbach alpha to a level of 0.921. Whereas the sub scale item "Relative to competitors we have no advantageous financial resources" lead to an observed increase in the overall scale based cronbach's alpha measure to 0.923.

The entrepreneur's perceptions of "policy uncertainty and government support (PU)" seem to matter the most and observed no sizable difference on the composite scale based reliability. With regard to the aforesaid factor, the sub-items "No support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages" and the "No waivers on stamp duty, registration charges, taxes, government charges for tender participation", lead to an observable decline in the wholesome scale based cronbach's alpha measure to the extent of 0.921.

The entrepreneur's perceptions of "infrastructural hassles (INF)" seem to matter the most and observed no sizable difference on the composite scale based reliability. The subjective deletion of the sub scale item "In wake of larger and longer access to consumption markets, how occasionally you maintain inventories" was observed to lead to a marginal decline in the composite scale based cronbach alpha to a level of 0.921. Whereas the sub scale item "To what extent there was incomplete and poor quality access to power supply at your end" lead to a observed increase in the overall scale based cronbach's alpha measure to 0.924. This clearly underlines the crucial role of the power supply in securing the consistent production.

Table 5.6: Inter-Item Statistics Reliability and Cronbach Alpha: Outcomes

		Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlatio n
UBR3	We can never freely share concerns and problems about the unit and know that they will respond constructively	.910	.673
UBR4	We can never freely share the concerns and problems regarding our unit and know that they will be interested in listening	.908	.745
UBR5	We never share common business values with the bank	.909	.697
UBR6	We feel that the bank will never act in a fashion consistent with what we recommend without prior discussion with us	.907	.754
UBR7	Senior manager/promoter has no regular meetings with bankers	.908	.741
UBR8	Our website is never updated with comprehensive management communications aimed at bankers	.906	.793
AME1	The unit pays the obligations with difficulty as cash position is rarely monitored	.915	.503
AME2	The unit is unable to meet operating costs	.911	.655
AME3	The unit is unable to pay for acquiring the essential inputs	.913	.598
MOF1	In our market, the customers frequently demand new products or services	.911	.700
MOF2	We never monitor the level of commitment to serving customer's needs	.910	.701
MOF3	Our strategy for competitive advantage is never based on our understanding of customer needs	.911	.682
MOF4	We never coordinate all of our business activities in order and organized manner to serve the needs of our target markets	.911	.660
MOF5	We are never quick to respond to competitive actions that threaten us	.913	.533
MOF6	We never discuss competitor's strengths and strategies	.912	.640
MOF7	Our strategies are never driven by our beliefs about how we can create greater value for our customers	.912	.587
FP1	The unit is experiencing high marginal losses	.921	.288
FP2	The unit does not understand business environment	.922	.305
FP3	The unit exercises no financial discipline	.921	.322

The entrepreneur's perceptions of "unit bank relations (UBR)" seem to matter the most and observed no sizable difference on the composite scale based reliability. The subjective deletion of the sub scale item "Our website is frequently updated with comprehensive management communications aimed at bankers" was observed to lead to a marginal decline in the composite scale based cronbach alpha to a level of 0.906. In similar perspective, the sub scale item "We feel that the bank will act in a fashion consistent with what we recommend without prior discussion with us" lead to a second observed decrease in the overall scale based cronbach'a alpha measure to

0.907. In nutshell, all the sub scale items that load well seem to reliably measure the phenomenon of the perceived "unit-bank relations" or "relations of the unit with the stakeholders". The entrepreneur's perceptions of "unit based market orientation (MOF)" seem to matter the most and observed no sizable difference on the composite scale based reliability. With regard to the aforesaid factor, the sub-items "We are quick to respond to competitive actions that threaten us" and the "Our strategies are driven by our beliefs about how we can create greater value for our customers", lead to an observable decline in the wholesome scale based cronbach's alpha measure to the extent of 0.912 and 0.913 respectively. In nutshell, all the sub scale items that load appropriately seem to reliably measure the phenomenon of the perceived "unit based market orientation". The entrepreneur's perceptions of "unit based financial performance (FP)" seem to matter the most and observed no sizable difference on the composite scale based reliability. The subjective deletion of the sub scale item "The unit experiences high marginal losses" was observed to lead to a marginal decline in the composite scale based cronbach alpha to a level of 0.921. Whereas the sub scale item "The unit does not understand the environment" lead to an observed increase in the overall scale based cronbach's alpha measure to 0.922. In nutshell, all the constituent sub scale items that load well seem to reliably measure the phenomenon of the perceived "unit based financial performance"

### 5.4 Principal component analysis of promoter driven factors

The small scale firm based "inefficiencies" have been measured with aid of the factors "promoter's entrepreneurial orientation", "faulty resource based planning", "inefficient managerial control", and "improper capacity utilization". The factors were shortlisted after extensive review of the existing literature, theoretical frameworks and the conceptual notes with regard to the phenomenon of the industrial decline or industrial sickness across the small scale units.

The term "internal in efficiencies" collectively stand for the managerial and internal inappropriate control mechanisms that are controllable yet no action is taken with regard to these controllable aspects that are widely believed to contribute towards the phenomenon of the industrial sickness across small scale units in developing economies. The small scale unit based "internal inefficiencies or deficiencies" count

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as they contribute substantially towards the onset of sickness. These deficiencies also matter as they are by and large controllable as well as manageable and not outside the ambit of promoter's decision making attributes. If these are catered to then the instances of industrial sickness could be revered, avoided as well as unit could be revived well in time.

As defined earlier, these "internal deficiencies" of the entrepreneur or the unit's promoters have been identified with aid of the existing literature and focuses on the controllable aspects of the decision making and are observed to be detrimental in shaping the prospects for the survival or the decay of the small scale unit.

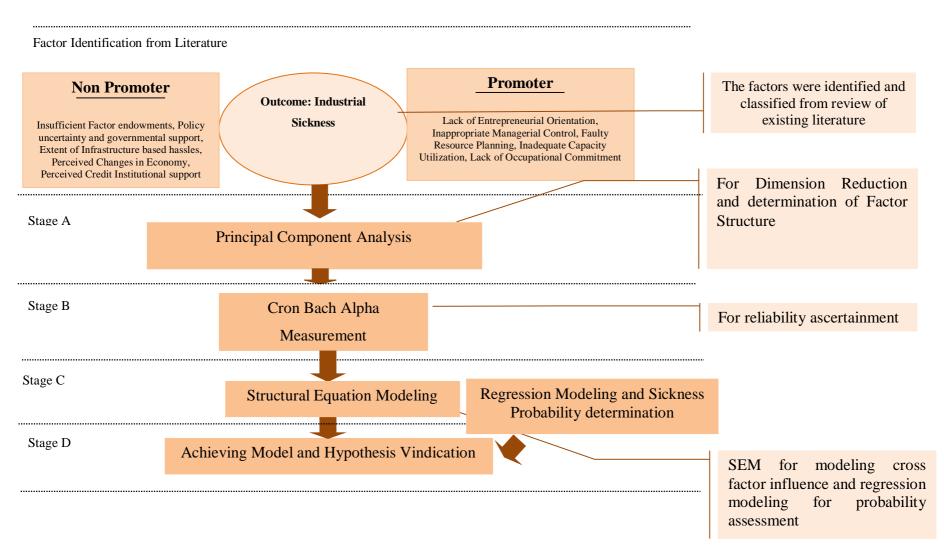


Figure 5.1: Flow of Data Analysis

The factor of promoter's "lack of entrepreneurial orientation" has been operationalized as involving the aspects of innovation, product development, emphasis on the research and development for product improvement as well as the sense of promoter's own willingness to adopt very competitive posture toward the competitors.

The **factor of "faulty resource based planning"** has been operationalized as involving the dimensions of the promoter's abilities with regard to technology and equipment operations, extent of updated market knowledge, promoter's knowledge and extent of control and access to distribution channels.

The other factor that contributes towards the entrepreneurial inefficiencies or lateral deficiencies in decision making corresponds to the "inefficient managerial control" of the concerned entrepreneur. The inefficient control has been operationalized in terms of the extent to which the past diversion of funds contributed to misfit and current state of affairs, extent to which the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources and the inability and failure of the entrepreneur with regard to extracting maximum possible from the current employees.

The **factor of "improper capacity utilization"** has been operationalized in terms of the extent to which the installed machinery usage suffers on account of entrepreneur's lack of professional knowledge and the extent to which the shortage of finance leads to reduced turnover in current manufacturing apparatus.

The **entrepreneur's self-assessed "occupational expertise"** has also been viewed as contributing to the phenomenon and concentrates on the aspects of entrepreneurial prowess in decision making.

The "scale based" exploratory factor analysis yields the loading of the sub scale items that load effectively into respective factor representing the phenomenon. The utility of the insistence on the "exploratory factor analysis" lies in the fact that it segregates the factors among the observed variables. In this case all the factors representing the small scale unit's internal deficiencies were loaded collectively on the SPSS and the total number of variables gets reduced. The purpose is to reduce the overall set of sub

scale items to a composite set of items that truly represent the phenomenon. In course of exploratory factor analysis, the variable with similar characteristics gets clubbed together. The exploratory analysis focuses on this segregation as well as identification and segregation of the sub scale items that represents the phenomenon in variable manner. The principal component analysis was performed across the theoretical constructs of "internal efficiencies/inefficiencies" to examine the probability of the loading of the representative sub scale items across the constituent factors. The measured variables were examined with regard to the loading into the single factor. The measured variables were inter-correlated to yield the respective representative factors. The inter correlation ability of the survey data was assessed with aid of the Bartlett's test of sphericity which established the correlation matrix as the identity matrix. The significant value generation in this test points towards the prevalence of significant correlation based relationships across the majority of the assumed variables. In continuity, the Kaiser Meyer Olkin test measures the overall sampling adequacy so as to ascertain the sample adequacy and sufficiency. The test yielded a measure greater than 0.5 pointing towards the existence of the sample based adequacy prior to consideration of the extensive exploratory factor analysis.

The statistical software SPSS and AMOS were leveraged for the conduct of the factor analysis with preference to the oblimin rotation technique and principal component analysis. The observable SPSS calculated factorial communalities elaborate on the extent of variance exhibited by the sub scale items with in the constituent factors. The corresponding values in this column signify the quantum of each variable's variance that is accessed by the retained factors in the aforesaid analysis.

The variables with representative higher values denote the better representation than those with lower value propositions. For instance, in case of analysis of the "entrepreneur's internal deficiencies" scale, the "entrepreneurial orientation (EO) has values in range of 0.861 to 0.914, which signifies higher weight age and respective higher variance been observed. The entrepreneur's self-assessed entrepreneurial orientation thus assumes more significance in current state of affairs as evident from the initial analysis. The entrepreneur's resource based planning (RP) scored the next maximum variance. Amidst the loading components, the response to entrepreneur's market based knowledge exhibited maximum variance thus vindicating the substantial role of the sub scale item in the overall analysis and outcomes.

The factor of "managerial control (M)" exhibited next maximum variance, yet the maximum observed communalities was with regard to the sub scale item focusing on the entrepreneur's ability to extract the maximum possible work from across the current employees. This sub scale item with maximum representative higher value of 0.934, denotes the better representation than those with lower value propositions representing the same factor of managerial control and governance. With regard to entrepreneur's abilities regarding the current capacity utilization, the entrepreneur's lack of professional expertise was highlighted as contributing to a maximum observable variance of nearly 0.840.

The variance as highlighted across communalities estimation clearly vindicates the loose stronghold of the entrepreneur over the small scale manufacturing unit based operations and management. In response to the entrepreneur's self-assessed and perceived occupational expertise or work related proficiency, the decision making aspect attracted the maximum observed variance of 0.673, thus highlighting the crucial role of decision making and the responsibility which an entrepreneur can never ever think of evading across unit based management. In similar stance, the self-assessed perception with regard to occupational commitment as highlighted by "I consider myself incompetent to engage in in-depth, specialist discussions in my job domain" ranked second as illustrated in this figure below. The communalities is essential to determine the factorability of data and all sub scale items exhibit Eigen values equal to one and initial extraction as lying between 0.5 and 0.9.

Table 5.7: KMO and Bartlett's Test: Promoter driven aspects

### **KMO** and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling		.773
Adequacy.		.773
Bartlett's Test of	Approx. Chi-Square	2344.857
Sphericity	df	120
	Sig.	0.000

**Table 5.8: Communalities for Scale** 

Communalities<sup>a</sup>

		Commu	iantics
		T 1.1 1	Extrac
		Initial	tion
EO_1	We never value new strategies/plans even if we are not certain that they will always work	1.000	.914
EO_2	We never encourage people in our unit to take risks with new ideas	1.000	.918
EO_4	We never try to discover additional needs of our customers of which they are unaware	1.000	.921
EO_7	There is no emphasis on R&D and technological leadership	1.000	.943
EO_8	There is no willingness to adopt very competitive posture toward the competitors	1.000	.861
RP_2	Lacks technological capabilities and equipment	1.000	.646
RP_3	Lacks market Knowledge	1.000	.849
RP_4	Lacks control and access to distribution channels	1.000	.787
M_1	To what extent the past diversion of funds contributed to misfit and current state of affairs	1.000	.872
M_2	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources	1.000	.858
M_4	Does the inability and failure to extract maximum possible from the current employees leading to current state?	1.000	.934
CU4	To what extent the installed machinery usage suffers on account of lack of professional knowledge	1.000	.840
CU5	To what extent shortage of finance leads to reduced turnover	1.000	.798
O_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	1.000	.649
O_2	During the past year, I was, in general, incompetent to perform my work accurately and with few mistakes	1.000	.546
O_3	During the past year, I was in general, incompetent to take prompt decisions with respect to my approach to work	1.000	.673

Extraction Method: Principal Component Analysis.

The factor based variance analysis is next crucial aspect of the factor analysis methodology. The factors representing the construct were analyzed across the SPSS platform to evaluate the total variance exhibited by the diverse set of the constituent factors. The first section on the left hand side as exhibited in illustration below details on the initial Eigen values. As per review of existing literature and the existing best practices for the satisfactory factor analysis, these Eigen values essentially should be greater than 1. The IBM literature on SPSS defines the Eigen value figure as involving the assessment of the variance that is explained by each factor with total amount of the variability as observed across the analysis. Hence as per the participating entrepreneurs from across Andhra Pradesh, the entrepreneur's entrepreneurial orientation exhibited the maximum percentage of variance amidst the total variable observed by the factors comprising the scale of entrepreneur's internal inefficiencies.

Table 5.9: Factor Variance

### Total Variance Explaineda

Components of Promoter Driven	nponents of Promoter Driven Initial Eigenvalues					Extraction Sums of Squared Loadings			
Scale	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total		
1= Lack of Promoter's Entrepreneurial Orientation/Skills	6.945	43.404	43.404	6.945	43.404	43.404	6.131		
2=Faulty Resource Planning	1.916	11.973	55.377	1.916	11.973	55.377	2.196		
3=Lack of Occupational Commitment	1.829	11.429	66.805	1.829	11.429	66.805	2.077		
4=Inappropriate Management Control	1.218	7.616	74.421	1.218	7.616	74.421	4.570		
5=Inadequate Capacity Utilization	1.101	6.881	81.302	1.101	6.881	81.302	3.208		

Responses were obtained with aid of a likert based measurement instrument with I=Strongly Disagree and 7= Strongly Agree

Extraction Method: Principal Component Analysis.

The variance as observed was divided across the five constituent factors yet the constituent factor may or may not exhibit equal variance. This is evident in the SPSS outcomes that all the five factors [entrepreneurial orientation(EO), resource planning (R), capacity utilization(CU), managerial control(M), occupational expertise(O)] vary substantially with regard to their total contribution towards the composite scale based observed variance. In this case, all the five constituent factors exhibited an Eigen value of more than 1 signifying the tremendous weight and the proportion of the scale elements in overall survival and sickness based prospects of the units and their entrepreneurs in focus and further consideration for factor analysis and empirical assessment. The constituent factors were hence identified as:

Factor A: Lack of Promoter's Entrepreneurial Orientation/Skills

Factor B: Faulty Resource based planning

Factor C: Lack of Entrepreneur's occupational commitment and integrity

Factor D: Inappropriate Managerial Control

Factor E: Inadequate Capacity utilization

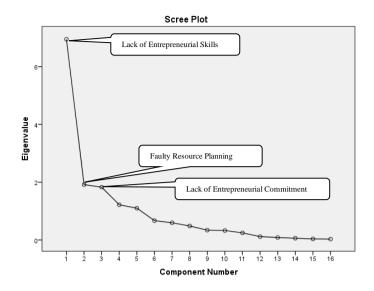


Figure 5.2: Scree Plot based Illustration for Internal Inefficiencies

As evident in the scree plot above the graph witnesses maximum change after the first factor (promoter's entrepreneurial orientation) which recorded the maximum observed variance of nearly 43 per cent.

### **5.4.1** Factor Loadings assessment

The purpose is to reduce the overall set of sub scale items to a composite set of items that truly represent the phenomenon. In course of exploratory factor analysis, the variable with similar characteristics gets clubbed together. The exploratory analysis focuses on the identification and segregation of the sub scale items that represents the phenomenon in variable manner.

Table 5.10: Composite Pattern Matrix for Scale representing Internal Inefficiencies (Entrepreneur based)

		Pattern Matrix <sup>a</sup>					
				C	ompone	nt	
			1	2	3	4	5
	EO_1	We never value new strategies/plans even if we are not certain that they will always work	.912				
Tr.	EO_2	We never encourage people in our unit to take risks with new ideas	.942				
Promoter's Entrepreneurial orientation	EO_4	We never try to discover additional needs of our customers of which they are unaware	.927				
ote pre tati	EO_7	There is no emphasis on R&D and technological leadership	.906				
Promoter's Entreprene orientation	EO_8	There is no willingness to adopt very competitive posture toward the competitors	.791				
s ur ne	RP_2	Lacks technological capabilities and equipment		.573			
Unit's Resour cefulne ss	RP_3	Lacks market Knowledge		.918			
U Re Se	RP_4	Lacks control and access to distribution channels		.888			
_	_	To what extent the past diversion of funds contributed to misfit and current state of affairs				.972	
Managerial Control	_	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources				.754	
Manage Control	_	Does the inability and failure to extract maximum possible from the current employees leading to current state?				.886	

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ıpaci iliza nı	CU4	To what extent the installed machinery usage suffers on account of lack of professional knowledge To what extent shortage of finance leads to reduced turnover I consider myself incompetent to engage in in-depth, specialist		.883
ಕ್ಟರ್	CU5	To what extent shortage of finance leads to reduced turnover		.838
a a	O_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	.804	
oter's pation etence		During the past year, I was, in general, incompetent to perform my work accurately and with few mistakes	.725	
Prom occuj comp	O_3	During the past year, I was in general, incompetent to take prompt decisions with respect to my approach to work	.827	

Responses were obtained with aid of a likert based measurement instrument with 1=Strongly Disagree and 7= Strongly Agree

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 5 iterations.

Table 5.11: Detailed analysis of loading and Non-Loading sub scale Items

	<b>Dimensions of Factors</b>	Loading	
	FACTOR: Lack of Entrepreneurial Orientation		
EO1	We never value new strategies/plans even if we are not certain that they will always work	.912	>.5
EO2	We never encourage people in our unit to take risks with new ideas	.942	>.5
EO3	We never look out for new business opportunities	No Loading	
EO4	We never try to discover additional needs of our customers of which they are unaware	.927	>.5
EO5	When it comes to problem solving we never value creative solutions more than solutions that rely on conventional wisdom	No Loading	
EO6	Our business is never the first to market with new products and services	No Loading	
EO7	There is no strong emphasis on R&D and technological leadership	.906	>.5
EO8	There is no willingness to adopt very competitive posture toward the competitors	.791	>.5
EO9	There is no willingness to initiate actions that competitors respond to	No Loading	
EO10	There is no willingness to adopt bold and aggressive postures when facing difficulties	No Loading	
EO11	There is a no strong tendency to pursue high risk projects	No Loading	
	FACTOR: Faulty Resource based Planning		
RP_1	Lacks Managerial Competencies	No Loading	
RP_2	Lacks Technological capabilities and equipment	.573	>.5
RP_3	Lacks Market Knowledge	.918	>.5
RP_4	Lacks Control and Access to distribution channels	.888	>.5
RP_5	Improper Coordination	No Loading	
RP_6	Lack of Strategic Planning	No Loading	
RP_7	Decreased ability to attract creative employees	No Loading	
RP_8	Worsening Firm Climate	No Loading	
RP_9	Non-Efficient Structure	No Loading	
RP_10	No advantageous relationships with customers	No Loading	
RP_11	Erosion of Customer's installed base	No Loading	
RP_12	Inefficient and Ineffective production setup	No Loading	
RP_13	Lack of Economies of scale and technical experience	No Loading	
RP_14	Stagnant Knowledge and skills of employees	No Loading	
	Factor: Inappropriate Managerial Control		
$M_1$	To what extent the past diversion of funds contributed to misfit and current state of affairs	.972	>.5
M_2	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources	.754	>.5
M_3	To what extent you are able to manage employees and are satisfied with their resultant contribution	No Loading	
M_4	Does the inability and failure to extract maximum possible from the current employees leading to current state?	.886	
$M_5$	To what extent your inability to deliver the orders in time leasing to loss of trust	No Loading	
M_6	To what extent the cost of your unit's overall production schedule is remained greater than the competitors and input costs	No Loading	
M_7	To what extent you adopted same old methods of marketing instead of contemporary and modern tactics to realize the potential of target market	No Loading	
M_8	To what extent you ignored the transitions in consumer behavior and pushed the same old products across the channel	No Loading	
	Factor: Inadequate Capacity Utilization		
CU1	To what extent the current technology/processing contributes to the adequate capacity utilization	No Loading	
CU2	To what extent the installed machinery is consistently serviced and modernized effectively	No Loading	
CU3	To what extent the installed machinery operates at its optimum levels	No Loading	
CU4	To what extent the installed machinery usage suffers on account of lack of professional knowledge	.883	>.5
CU5	To what extent shortage of finance leads to reduced turnover	.838	>.5
CU6	To what extent lack of maintenance leads to improper machine usage	No Loading	
CU7	To what extent the production process is unable to cope up with latest demand based developments	No Loading	
CU8	To what extent frequent breakdown of machinery leads to disruptions in production	No Loading	
CU9	To what extent want of skilled labor forces the shutdown or lowered production	No Loading	
CU10	To what extent the lack of whole time interest leads to decline in production	No Loading	
	Factor: Lack of Occupational Commitment		

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0_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	.804	>.5
$\mathbf{O}_{2}^{\mathbf{-2}}$	During the past year, I was, in general, incompetent to perform my work accurately	.725	>.5
$0_3$	During the past year, I was in general, incompetent to take prompt decisions	.827	>.5
0_4	I consider myself incompetent to indicate when my knowledge is insufficient to perform a task or solve a problem	No Loading	
O_5	I consider myself incompetent to provide information on my work in a way that is comprehensive	No Loading	
0_6	In general I am competent to distinguish main issues from side issues and to set priorities	No Loading	
O_7	During the past year, I was in general incompetent to carry out my work independently	No Loading	
O_8	I consider myself incompetent to be of more practical assistance to colleagues about approach	No Loading	
0_9	I consider myself incompetent to weigh up and reason out the pros and cons of particular decisions on working methods, materials and techniques in my job domain	No Loading	
$O_{-}10$	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	No Loading	
0_11	During the past year, I was, in general, incompetent to perform my work accurately	No Loading	

Source: SPSS Outcomes

The table above underlines and separates the loading items from unloading items. The loading sub scale items exhibited loading greater than 0.5 to 0.9 and were observed to load against the factor itself. The principal component analysis methodology with oblimin rotation technique was operationalized for seeking factor loadings across pattern matrix.

The first factor that loads successfully across "promoter driven inefficiencies" scale is "lack of entrepreneurial orientation". This factor exhibited an Eigen value of 6.945 which in other terms correspond to 43.404 percentage of total observed variance. In total there were eleven variables that were operationalized to quantify this factor yet they got reduced to five variables that were observed to truly represent the factor. These five variables are (variable one: EO1 We never value new strategies/plans even if we are not certain that they will always work \_\_\_,variable \_two: EO2-We \_never encourage people in our unit to take risks with new ideas, variable three :EO4-We never try to discover additional needs of our customers of which they are unaware, variable four :EO7-There is no strong emphasis on R&D and technological leadership and variable five : EO8-There is no willingness to adopt very competitive posture toward the competitors) All five variables exhibited strong factor loadings between 0.7 to 0.9.

The next factor with satisfactory loading is "faulty resource planning". This factor exhibited an Eigen value of 1.916 and contributed to 11.973 per cent of total reported variance by scale elements. This factor was measured with fourteen variables yet only three variables reported strong and satisfactory loadings (RP\_2, RP\_3, RP\_4).

The third factor loading is "lack of occupational commitment". This factor exhibited an Eigen value of 1.829 and contributed to 11.429 per cent of total reported variance

by scale elements. This factor was measured with eleven variables yet only three variables reported strong and satisfactory loadings (O\_1, O\_2, O\_3).

Following to this analysis, "inappropriate management control" loaded as fourth factor. From across eight variables, three variables (M\_1, M\_2, M\_4) were observed to exhibit loadings in range of 0.7 to 0.9. This factor exhibited maximum Eigen value of 1.218 and corresponded to 7.616 per cent of total variance by scale based factors.

Finally, "Inadequate capacity utilization" loaded as fifth factor with a reported Eigen value of 1.101 and corresponded to 6.881 percentage of total variance. This factor was quantified with aid of ten variables yet only two reported satisfactory factor loadings (CU4, CU5).

### 5.4.2 EFA across Districts

The respondents from across the three district reported significant differences with regard to the entrepreneurial orientation, resource planning, managerial control, occupational commitment and respective capacity utilization across their respective small scale units. The study achieved 46 valid responses from the entrepreneurs located across East Godavari, 55 valid responses from the entrepreneurs across West Godavari district and 54 valid responses from across Krishna district. In total 155 valid responses were considered for analysis and interpretation. In relative spirit, the exploratory factor analysis was conducted with regard to three chosen districts of East Godavari, West Godavari and Krishna as assumed for study. The SPSS based principal component analysis revealed the incidence of diverse patterns and variances as mentioned in the pattern matrix below. The SPSS based factor driven pattern matrix reflects the cross district variations in perceptions of the surveyed entrepreneurs with regard to the "internal" scale elements. A review of the observations with regard to first factor (promoter's entrepreneurial orientation) hint at the more inclination of the entrepreneurs located in West Godavari district towards the non-usage of the new strategies/plans even if they are not certain that they will always work. In similar stance, the entrepreneurs from West Godavari were observed to be more skeptical with regard to encouraging people in their small scale units to take risks with new ideas. With regard to the entrepreneur's perceptions with regard to discovering the additional needs of their respective customers of which they are unaware; only the respondents from Krishna district replied in affirmative. The variations, as observed across the level of districts reflect the ground level situation of the entrepreneurial perceptions in regional perspective.

Table 5.12: District wise Exploratory Factor Loadings for Internal Inefficiencies

	Factor	East	West	Krishna
	FACTOR1: Lack of Entrepreneurial Orientation			
EO_1	We never value new strategies/plans even if we are not certain that they will always work	. 850	.967	.908
EO_2	We never encourage people in our unit to take risks with new ideas	.880	.967	.927
EO_4	We never try to discover additional needs of our customers of which they are unaware	-	-	.960
EO_7	There is no emphasis on R&D and technological leadership	.692	.855	.956
EO_8	There is no willingness to adopt very competitive posture toward the competitors	-	.791	.851
	FACTOR 2: Faulty Resource based Planning			
RP_2	Lacks technological capabilities and equipment	-	-	
RP_3	Lacks market Knowledge	.914	.925	.888
RP_4	Lacks control and access to distribution channels	.793	.923	.927
	FACTOR 3: Lack of Occupational competency			
O_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	635	.882	.755
O_2	During the past year, I was, in general, incompetent to perform my work accurately and with few mistakes	-	-	.797
O_3	During the past year, I was in general, incompetent to take prompt decisions with respect to my approach to work	950	.863	.787
	FACTOR 4: Inappropriate Managerial Control			
M_1	To what extent the past diversion of funds contributed to misfit and current state of affairs	-1.023	.985	.764
M_2	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources	840	.833	-
M_4	Does the inability and failure to extract maximum possible from the current employees leading to current state?	827	.965	.659
	FACTOR 5: Inadequate Capacity Utilization			
CU4	To what extent the installed machinery usage suffers on account of lack of professional knowledge	. 889	.882	.799
CU5	To what extent shortage of finance leads to reduced turnover	.738	.863	.923

 $Responses were obtained with aid of a \textit{likert based measurement instrument with 1-Strongly \textit{Disagree and 7-Strongly Agree}} \\$ 

In similar stance, the surveyed entrepreneurs from across West Godavari region were observed to be more prone towards the lack of relevant market knowledge with regard to product development and product marketing in comparison form their counterparts from across East Godavari and Krishna districts. With regard to the entrepreneur's self-assessed and perceived occupational commitment in their respective small scale units, their respective incompetency to engage in in-depth, specialist discussions in their job domain; was observed to be worse across those from the West Godavari Region.

With regard to their opinion about the managerial inefficiencies and control over the unit's functioning, the respondents from across the East Godavari region with majority of the respondents nodding to substantial diversion of funds for non-business and non-core activities or for personal usage. Witt regard to the factor of inefficient capacity utilization, the respondents from across the East Godavari region nodded to

maximum possible probability of installed machinery usage suffering on account of entrepreneur's substantial lack of professional knowledge.

Findings: More of the responding entrepreneurs from across West Godavari district were observed to be favoring the non-adoption of new and novel strategies for the enterprise development. The promoter's misguided entrepreneurial orientation as a dimension of internal deficiencies encountered across the surveyed units speaks a lot about the state of affairs. The entrepreneurs from the West Godavari engaged across non encouragement of the staff and never ever motivated their own staff for reaching out to markets or undertaking risk. In other words, the state of affairs is grimmer across the aforesaid district than the state of affair across the East Godavari and Krishna districts. The promoter driven entrepreneurial orientation is observed to be in a dismal state across the West Godavari and the participating promoters were observed to be more inclined towards being misguided and possessing imbalanced entrepreneurial orientation. These points towards the worsening state of affairs across the aforesaid district in Andhra Pradesh. With regard to the state of affairs with regard to "resource based planning" across the three chosen districts, the respondents from across West Godavari region lacked access to knowledge, market as well as the distribution channels in comparison with the respondents from across East Godavari and Krishna districts respectively.

In nutshell we can summarize the factor based variations as:

Table 5.13: Summarizing the Internal Inefficiencies and Factor Loadings

Factor Number	Factor Name	Factor Loading	Label	Constituent variables included in the factor					
A		.912	EO_1	We never value new strategies/plans even if we are not certain that they will always work					
	-	.942	EO_2	We never encourage people in our unit to take risks with new ideas					
	Promoter's Entrepreneurial orientation	.927	EO_4	We never try to discover additional needs of our customers of which they are unaware					
	note spre	.906	EO_7	There is no emphasis on R&D and technological leadership					
	Promoter's Entreprene orientation	.791	EO_8	There is no willingness to adopt very competitive posture toward the competitors					
В	Resou rce Planni	.573	RP_2	Lacks technological capabilities and equipment					
		esor e ann	esor e	esor e ann	esor e ann	e e ann	.918	RP_3	Lacks market Knowledge
		.888	RP_4	Lacks control and access to distribution channels					
С	_	.972	M_1	To what extent the past diversion of funds contributed to misfit and current state of affairs					
	Managerial Control	.754	M_2	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources					
	Mana Cont	.886	M_4	Does the inability and failure to extract maximum possible from the current employees leading to current state?					
D	Cap Utiliz	.883	CU4	To what extent the installed machinery usage suffers on account of lack of professional knowledge					
	SD	.838	CU5	To what extent shortage of finance leads to reduced turnover					

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Е	onal	.804	0_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain
upation		.725	O_2	During the past year, I was, in general, incompetent to perform my work accurately and with few mistakes
	Occu	.827	O_3	During the past year, I was in general, incompetent to take prompt decisions with respect to my approach to work

Source: SPSS Outcomes

### 5.5 Principal component analysis of non-promoter driven factors

The unit's "external dependencies" were measured with aid of the contributing factors "insufficient factor endowments", "infrastructural bottlenecks", "changes in economic conditions" and the "pattern of relationships with banks (stakeholders)". These contributing factors were shortlisted after extensive review of the existing papers, literature, theoretical frameworks and the conceptual notes with regard to the phenomenon of the industrial decline or industrial sickness across the small scale units.

The term "external dependencies" collectively stand for the entrepreneurial fallacies and ineffective perceptions that are aimed at managing the negative consequences of the aforesaid uncontrollable variables across small scale units in developing economies. As per the resource based view of firm the enterprise (small or medium sized) depends on the external resources, external infrastructure products and services as well as the prevailing market conditions and the quantum of demand in the existing social economic systems to generate the revenue and the value for the stakeholders.

The exploratory factor analysis yields the loading of the sub scale items that load effectively into respective factor representing the phenomenon. The utility of the insistence on the exploratory factor analysis lies in the fact that it segregates the factors among the observed variables. In this case all the factors representing the small scale unit's internal deficiencies were loaded collectively on the SPSS and the total number of variables gets reduced. The purpose is to reduce the overall set of sub scale items to a composite set of items that truly represent the phenomenon. In course of exploratory factor analysis, the variables with similar characteristics get clubbed together.

The SPSS was leveraged for the conduct of the factor analysis with preference to the oblimin rotation technique and principal component analysis. The principal

component analysis was performed across the theoretical constructs of "external support perceptions" to examine the probability of the loading of the representative sub scale items across the constituent factors. The measured variables were examined with regard to the loading into the single factor. The measured variables were intercorrelated to yield the respective representative factors. The inter correlation ability of the survey data was assessed with aid of the Bartlett's test of sphericity which established the correlation matrix as the identity matrix. The significant value generation in this test points towards the prevalence of significant correlation based relationships across the majority of the assumed variables. In continuity, the Kaiser Meyer Olkin test measures the overall sampling adequacy so as to ascertain the sample adequacy and sufficiency. The test yielded a measure greater than 0.5 pointing towards the existence of the sample based adequacy prior to consideration of the extensive exploratory factor analysis.

The communalities elaborate on the extent of variance. The corresponding values in this column signify the quantum of each variable's variance that is accessed by the retained factors in the aforesaid analysis. The variables with representative higher values denote the better representation than those with lower value propositions. For instance, in case of analysis of the "entrepreneur's external dependencies" scale, the "changes in economy (CE)" has values in range of 0.899 to 0.906, which signifies higher weight age and respective higher variance been observed. The entrepreneur's self-assessed "changes in economy" thus assumes more significance in current state of affairs as evident from the initial analysis. These communalities were calculated using the principal component analysis and reflect the variance explained by the extracted factor. All the sub scale items constituting the entrepreneur's perceived "changes in economy" were observed to exhibit nearly 90 per cent variance and not a single sub scale item exhibits the variance lesser than 0.5. The communalities are essential to determine the factorability of data and all sub scale items exhibit Eigen values equal to one and initial extraction as lying between 0.5 and 0.9.

Table 5.14: KMO and Bartlett's Test: Non-Promoter driven aspects

### **KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of	.837	
Bartlett's Test of Sphericity	4897.940	
	df	231
	Sig.	0.000

Table 5.15: Communalities Figures: External Dependencies Scale elements

### Communalities<sup>a</sup>

		Initial	Extraction
CE2	Firm's products are facing market based recession and lack of demand	1.000	.906
CE4	The firm faces competition from the availability of the alternatives or substitutes	1.000	.894
CE5	The price of product is stagnant for a longer time period	1.000	.899
F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials	1.000	.909
F_3	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity	1.000	.904
F_4	To what extent the price related volatility and increased input costs impacted the productive capacity of the unit	1.000	.914
F_5	To what extent the raw material shortages impact overall productivity	1.000	.867
F_6	To what extent the non-availability of local labor impacts the productive usage?	1.000	.857
F_7	To what extent the unit is under financed in terms of working capital and fixed asset acquisition	1.000	.842
BCR_1	Bank loans are never easily available for us	1.000	.770
BCR_2	Capital from suppliers or customers is never easily available for us	1.000	.907
BCR_3	Capital from other sources is easily available for us	1.000	.863
	Relative to competitors we have no advantageous financial resources	1.000	.731
PU_1	There is no provision of level playing field with fiscal and non-fiscal incentives for small sector promotion, trade agreements, export promotion and tax holidays and duty rationalization	1.000	.931
PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages	1.000	.970
	Large number of rules and regulations for getting concession, subsidy and aid for industry establishment	1.000	.967
PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor	1.000	.884
	No waivers on stamp duty, registration charges, taxes, government charges for tender participation	1.000	.898
	To what extent there was incomplete and poor quality access to power supply at your end	1.000	.888
	How far and how occasionally you face transportation and communication problems at your industrial premises?	1.000	.868
INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain inventories	1.000	.935
INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units in state	1.000	.948

Extraction Method: Principal Component Analysis.

Source: SPSS Outcomes

The factor based variance analysis is next crucial aspect of the factor analysis methodology. The factors representing the construct were analyzed across the SPSS

platform to evaluate the total variance exhibited by the diverse set of the constituent factors. The first section on the left hand side as exhibited in illustration below details on the initial Eigen values. As per review of existing literature and the existing best practices for the satisfactory factor analysis, these Eigen values essentially should be greater than 1. The IBM literature on SPSS defines the Eigen value figure as involving the assessment of the variance that is explained by each factor with total amount of the variability as observed across the analysis. Hence as per the participating entrepreneurs from across Andhra Pradesh, Insufficient Factor endowments exhibited the maximum percentage of variance amidst the total variable observed by the factors comprising the scale of entrepreneur's external dependencies.

The variance as observed was divided across the five constituent factors yet the constituent factor may or may not exhibit equal variance. This is evident in the SPSS outcomes that all the five factors "insufficient factor endowments", "infrastructural hassles", "changes in economic conditions", "access to bank credit" and the "policy uncertainty and governmental support" vary substantially with regard to their total contribution towards the composite scale based observed variance. In this case, all the five constituent factors exhibited an Eigen value of more than 1 signifying the tremendous weight and the proportion of the scale elements in overall survival and sickness based prospects of the units and their entrepreneurs in focus and further consideration for factor analysis and empirical assessment.

Table 5.16: Factor Variances: External Dependencies of the small unit

Total Variance Explaineda

	Init	al Eigenva	lues	Extractio	Rotation Sums of Squared Loadings <sup>b</sup>		
Component (Non-Promoter Based)	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulati ve %	Total
1= Factor Endowments	9.136	41.529	41.529	9.136	41.529	41.529	6.764
2=Policy Uncertainty	3.843	17.467	58.996	3.843	17.467	58.996	5.936
3=Infrastructure Hassles	2.911	13.233	72.229	2.911	13.233	72.229	5.372
4=Changes in Economy	2.045	9.297	81.525	2.045	9.297	81.525	3.402
5=Credit Institutional Support	1.620	7.363	88.889	1.620	7.363	88.889	4.951

Extraction Method: Principal Component Analysis.

a. Only cases

 $b. \ When \ components \ are \ correlated, sums \ of \ squared \ loadings \ cannot \ be \ added \ to \ obtain \ a \ total \ variance.$ 

The factors were hence identified as:

Factor A: Insufficient Factor endowments

Factor B: Policy uncertainty and governmental support

Factor C: Extent of Infrastructure based hassles

Factor D: Perceived Changes in Economy

Factor E: Perceived Credit Institutional support

The following scree plot further vindicates the trends as observed across the factor wide basis. The "scree plot" is widely regarded as the graphical representation of the variance analysis by each constituent factor under consideration. The scree plot (in preceding sections) clearly vindicates the cross component impact amongst the factors assumed for the analysis and consideration in this scale. In other words, the factors from "insufficient factor endowments" "policy uncertainty and governmental support", "infrastructure based hassles", "perceived changes in Economy as well as "perceived credit institutional support", equally matters in the scale based collective variance.

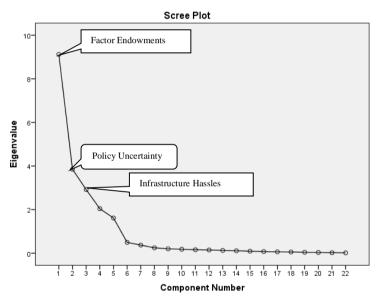


Figure 5.3: Scree Plot Projections: Variances for External Dependencies

As evident in the scree plot above the graph witnesses' maximum change after the first factor (Factor endowments) which recorded the maximum observed variance of nearly 42 percent

# **5.5.1** Factor Loadings assessment

The purpose is to reduce the overall set of sub scale items to a composite set of items that truly represent the phenomenon. In course of exploratory factor analysis, the variable with similar characteristics gets clubbed together. The exploratory analysis focuses on the identification and segregation of the sub scale items that represents the phenomenon in variable manner.

Table 5.17: Composite Pattern Matrix: Factor Loading for External Dependencies Scale Elements

Pattern Matrix<sup>a,b</sup>

		Component				
		1	2	3	4	5
CE2	Firm's products are facing market based recession and lack of demand				.948	
CE4	The firm faces competition from the availability of the alternatives or				.924	
	substitutes					
CE5	The price of product is stagnant for a longer time period				.934	
F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials	.968				
F_3	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity	.941				
F_4	To what extent the price related volatility and increased input costs impacted the productive capacity of the unit	.930				
F_5	To what extent the raw material shortages impact overall productivity	.931				
F_6	To what extent the non-availability of local labor impacts the productive usage?	.912				
F_7	To what extent the unit is under financed in terms of working capital and fixed asset acquisition	.885				
BCR_1	Bank loans are never easily available for us					.731
BCR_2	Capital from suppliers or customers is never easily available for us					.946
BCR_3	Capital from other sources is easily available for us					.838
BCR_5	Relative to competitors we have no advantageous financial resources					.721
PU_1	There is no provision of level playing field with fiscal and non fiscal incentives					
	for small sector promotion, trade agreements, export promotion and tax holidays and duty rationalization		.946			
PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages		.954			
PU_4	Large number of rules and regulations for getting concession, subsidy and aid					
_	for industry establishment		.965			
PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor		.880			
PU_6	No waivers on stamp duty, registration charges, taxes, government charges for tender participation		.893			
INF_1	To what extent there was incomplete and poor quality access to power supply at your end			955		
INF_2	How far and how occasionally you face transportation and communication problems at your industrial premises?			889		
INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain inventories			968		
INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units in state			849		

Responses were obtained with aid of a likert based measurement instrument with 1=Strongly Disagree and 7= Strongly Agree

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization. a. Rotation converged in 6 iterations.

Table 5.18: Detailed analysis of loading and Non-Loading sub scale Items

•	Dimensions of Factors	Loading	•
	FACTOR: Changes in Economy		
CE1	Andhra Pradesh's present economic situation is bad	No Loading	
CE2	Firm's products are facing market based recession and lack of demand	.948	>.5
CE3	State's economy worse off for coming one year	No Loading	
CE4	The firm faces competition from the availability of the alternatives or substitutes	.924	>.5
CE5	The price of product is stagnant for a longer time period	.934	>.5
CE6	The decision making was largely driven by how much we could afford to lose	No Loading	
CE7	The lack of adequate demand of the product is stifling the revenue generation	No Loading	
CE8	It is impossible to see from the beginning where we wanted to end	No Loading	
CE9	Now a days, state economy is in worst period in last decade	No Loading	
CE10	There is extensive price based competition from registered and unregistered unit	No Loading	
CE11	There is abrupt change in tax laws and compliance requirements	No Loading	
	FACTOR: Insufficient Factor Endowments		
F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials	.967	>.5
F_2	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity	No Loading	
F_3	To what extent price related volatility and increased input costs impacted productive capacity of the unit	.941	>.5
F_4	To what extent the raw material shortages impact overall productivity?	.930	>.5
F_5	To what extent the non-availability of local labor impacts the productive usage?	.931	>.5
F_6	To what extent the time taken in sanctioning of loan/ credit impacted the productive usage?	.912	>.5
F_7	To what extent the rate of interest was fair and equitable with regard to market standards and the impact on productive usage	.885	>.5

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F_8	To what extent the unit is under financed in terms of working capital and fixed asset acquisition	No Loading	
F_9	To what extent the unit faced production consequences on account of insufficient availability of	No Loading	
	funding for production continuance, operations management and marketing		
F_10	To what extent the unit faced terms and conditions framed by local banks while sanctioning the	No Loading	
	credit		
	Factor: Credit Institutions		
BCR_1	Bank loans are never easily available for us	.972	>.5
BCR_2	Capital from suppliers or customers is never easily available for us	.754	>.5
BCR_3	Capital from other sources is easily available for us	.838	
BCR_4	Bankers and other investors never go out of their way to help new firms get started	No Loading	
BCR_5	Relative to competitors we have no advantageous financial resources	.721	>.5
	Factor: Policy Uncertainty		
PU_1	There is no provision of level playing field with fiscal and non-fiscal incentives for small sector	.946	
	promotion, trade agreements, export promotion and tax holidays and duty rationalization		
$PU_2$	To what extent the installed machinery is consistently serviced and modernized effectively	No Loading	
PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and	.954	>.5
	cluster for downward and upward linkages	.,	
PU_4	Large number of rules and regulations for getting concession, subsidy and aid for industry	.965	>.5
	establishment		
PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor	.880	>.5
PU_6	No waivers on stamp duty, registration charges, taxes, government charges for tender participation	.893	>.5
PU_7	To what extent the production process is unable to cope up with latest demand based developments	No Loading	
PU_8	To what extent frequent breakdown of machinery leads to disruptions in production	No Loading	
PU_9	To what extent want of skilled labor forces the shutdown or lowered production	No Loading	
$PU_10$	To what extent the lack of whole time interest leads to decline in production	No Loading	
	Factor: Infrastructure Hassles		_
INF_1	To what extent there was incomplete and poor quality access to power supply at your end	955	>.5
INF_2	How far and how occasionally you face transportation and communication problems at your industrial premises?	889	>.5
INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain		>.5
1111_5	inventory	968	7.5
INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units	849	>.5
INF_5	To what extent the irregular power and water supply contributed to downturn in the small scale units	No Loading	
INF_6	To what extent there was incomplete and poor quality access to power supply at your end	No Loading	

Source: SPSS Outcomes

The table above underlines and separates the loading items from unloading items. The loading sub scale items exhibited loading greater than 0.5 to 0.9 and were observed to load against the factor itself. The principal component analysis methodology with oblimin rotation technique was operationalized for seeking factor loadings across pattern matrix.

The first factor that loads successfully across "non-promoter driven dependencies" scale is "insufficient factor endowments". This factor exhibited an Eigen value of 9.136 which in other terms correspond to 41.529 percentage of total observed variance. In total there were ten variables that were operationalized to quantify this factor yet they got reduced to six variables that were observed to truly represent the factor. These six variables are (variable one: F\_1-To what extent you faced difficulty in procuring the essential raw inputs and materials, variable two: F\_3-To what extent price related volatility and increased input costs impacted productive capacity of the unit, variable three: F\_4-To what extent the raw material shortages impact overall productivity, variable four: F\_5-To what extent the non-availability of local labor impacts the productive usage, variable five: F\_6 —To what extent the time taken in sanctioning of loan/ credit impacted the productive usage and variable six: F\_7-To

what extent the rate of interest was fair and equitable with regard to market standards and the impact on productive usage ). All six variables exhibited strong factor loadings ranging between 0.8to 0.9.

The next factor with satisfactory loading is "policy uncertainty". This factor exhibited an Eigen value of 3.843 and contributed to 17.467 per cent of total reported variance by scale elements. This factor was measured with ten variables yet only five variables reported strong and satisfactory loadings (PU\_1, PU\_3, PU\_4, PU\_5, PU\_6).

The third factor loading is "infrastructural hassles". This factor exhibited an Eigen value of 2.911 and contributed to 13.233 per cent of total reported variance by scale elements. This factor was measured with six variables yet only four variables reported strong and satisfactory loadings (INF\_1, INF\_2, INF\_3, INF\_4).

Following to this analysis, "change in economy" loaded as fourth factor. From across eleven variables, three variables (CE2, CE4, CE5) were observed to exhibit loadings in range of 0.924 to 0.948. This factor exhibited maximum Eigen value of 2.044 and corresponded to 9.297 per cent of total variance by scale based factors.

Finally, "Inadequate credit institutional support" loaded as fifth factor with a reported Eigen value of 1.620 and corresponded to 7.363 percentage of total variance. This factor was quantified with aid of five variables yet only four reported satisfactory factor loadings (BCR\_1, BCR\_2, BCR\_3, BCR\_5).

### 5.5.2 EFA across Districts

The respondents from across the three district reported significant differences with regard to the perceived changes in economy, perceived factor endowments, perceived credit availability from banks, perceived policy uncertainty and respective perceptions of infrastructure hassles across their respective small scale units. The study achieved 46 valid responses from the entrepreneurs located across East Godavari, 55 valid responses from the entrepreneurs across West Godavari district and 54 valid responses from across Krishna district. In total 155 valid responses were considered for analysis and interpretation. The study operationalized extractive factor analysis for uncovering the district wide variations with regard to factor structure. The purpose is to reduce the overall set of sub scale items to a composite set of items that truly

represent the phenomenon with regard to districts. In course of exploratory factor analysis, the variable with similar characteristics gets clubbed together. The exploratory analysis focuses on the identification and segregation of the sub scale items that represents the phenomenon in variable manner. In relative spirit, the exploratory factor analysis was conducted with regard to three chosen districts of East Godavari, West Godavari and Krishna as assumed for study. The SPSS based principal component analysis revealed the incidence of diverse patterns and variances as mentioned in the pattern matrix below. The SPSS based factor driven pattern matrix reflects the cross district variations in perceptions of the surveyed entrepreneurs with regard to the "external" scale elements. A review of the observations with regard to first factor (promoter's perceptions of changes in economy) hint at the more inclination of the entrepreneurs located in East Godavari district towards the problem of firm's products as facing market based recession and lack of demand. The respondents from West Godavari were skeptical with regard to price of product as stagnant for a longer time period. The entrepreneurs from across East Godavari faced most instances of difficulty in procuring the essential raw inputs and materials. The entrepreneurs from across the East Godavari region were observed to be more inclined towards the state driven incentive for establishing the small scale industry. Yet the entrepreneurs from the West Godavari region were observed to be inclined towards the boom in industry as the prime motivator for establishing the small scale unit.

Table 5.19: Exploratory Matrices: Differences by Districts

	Factor and Sub Scale Items	East	West	Krishna
	Factor: Change in Economy			
CE2	Firm's products are facing market based recession and lack of demand	1.012	.933	.913
CE4	The firm faces competition from the availability of the alternatives or substitutes	.948	.859	.946
CE5	The price of product is stagnant for a longer time period	.964	1.000	.904
	Factor: Factor Endowments			
F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials	1.004	.970	.950
F_3	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity	.924	.962	.880
F_4	To what extent the price related volatility and increased input costs impacted the productive capacity of the unit	.993	.942	.898
F_5	To what extent the raw material shortages impact overall productivity	.800	.962	.966
F_6	To what extent the non availability of local labor impacts the productive usage?	.863	.880	.953
F_6 F_7	To what extent the unit is under financed in terms of working capital and fixed asset acquisition	.850	.939	.826
	Factor: Access to credit			
BCR_1	Bank loans are never easily available for us	.786	.776	.819
BCR 2	Capital from suppliers or customers is never easily available for us	.968	.939	.974
BCR_3	Capital from other sources is easily available for us	.796	.957	.735
BCR_5	Relative to competitors we have no advantageous financial resources	-	-	-
	Factor: Policy Uncertainty			
PU_1	There is no provision of level playing field with fiscal and non fiscal incentives for small sector promotion, trade agreements, export promotion and tax holidays and duty rationalization	.965	.945	.958
PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages	.887	.978	.878
PU_4	Large number of rules and regulations for getting concession, subsidy and aid for industry establishment	.932	.980	.870

PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of			
_	labor	-	-	-
PU_6	No waivers on stamp duty, registration charges, taxes, government charges for tender participation	.861	.968	.969
	Factor: Infrastructure Hassles			
INF_1	To what extent there was incomplete and poor quality access to power supply at your end	.989	903	.979
INF_2	How far and how occasionally you face transportation and communication problems at your industrial premises?	.931	908	.651
INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain inventories	.914	965	.824
INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units in state	.939	944	.994
	Factor: Change in Economy			
CE2	Firm's products are facing market based recession and lack of demand	1.012	.933	.913
CE4	The firm faces competition from the availability of the alternatives or substitutes	.948	.859	.946

Findings: The entrepreneurs from West Godavari were observed to be more skeptical with regard to encouraging people in their small scale units to take risks with new ideas. With regard to the entrepreneur's perceptions with regard to discovering the additional needs of their respective customers of which they are unaware; only the respondents from Krishna district replied in affirmative. The variations, as observed across the level of districts reflect the ground level situation of the entrepreneurial perceptions in regional perspective and were most affected by price related volatility and increased input costs impacted the productive capacity of unit. In contrast, entrepreneurs from West Godavari faced difficulty in procuring the raw materials that impact the productive capacity. The entrepreneurs from across Krishna district voiced their stringent concerns regarding the raw material shortages as impacting overall productivity and the non-availability of local labor as impacting the productive usage of resources at the plant sites. In nutshell we can summarize the factor based variations as:

Table 5.20: Summarizing the External Inefficiencies and Factor Loadings

Factor Name	Factor Loading	Label	Constituent variables included in the factor
п	.948	CE2	Firm's products are facing market based recession and lack of demand
Changes in Economy	.924	CE4	The firm faces competition from the availability of the alternatives or substitutes
Changes i Economy	.934	CE5	The price of product is stagnant for a longer time period
	.968	F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials
ents	.941	F_3	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity
Factor Endowments	.930	F_4	To what extent the price related volatility and increased input costs impacted the productive capacity of the unit
Enc.	.931	F_5	To what extent the raw material shortages impact overall productivity
or ]	.912	F_6	To what extent the non-availability of local labor impacts the productive usage?
Fact	.885	F_7	To what extent the unit is under financed in terms of working capital and fixed asset acquisition
Cr ed it	.731	BCR_ 1	Bank loans are never easily available for us

	.946	BCR_	Capital from suppliers or customers is never easily available for us
	.838	BCR_	Capital from other sources is easily available for us
	.721	BCR_ 5	Relative to competitors we have no advantageous financial resources
	.946	PU_1	There is no provision of level playing field with fiscal and non-fiscal incentives for small sector promotion, trade agreements, export promotion and tax holidays and duty rationalization
aty .	.954	PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages
Policy Uncertainty	.965	PU_4	Large number of rules and regulations for getting concession, subsidy and aid for industry establishment
cy Une	.880	PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor
Polic	.893	PU_6	No waivers on stamp duty, registration charges, taxes, government charges for tender participation
	955	INF_1	To what extent there was incomplete and poor quality access to power supply at your end
nre	889	INF_2	How far and how occasionally you face transportation and communication problems at your industrial premises?
Infrastructure Hassles	968	INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain inventories
Infrastr	849	INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units in state

Responses were obtained with aid of a likert based measurement instrument with 1= Strongly Disagree and 7= Strongly Agree

## 5.6 Principal component analysis of outcome based factors

The unit's "outcomes" were measured with aid of the contributing factors "imbalance across relationships with stakeholders", "lack of market orientation of unit", "decrease in ability of unit to meet expenses" and the "perceived failure risk". These contributing factors were shortlisted after extensive review of the existing papers, literature, theoretical frameworks and the conceptual notes with regard to the phenomenon of the industrial decline or industrial sickness across the small scale units.

The term "outcome behaviors" collectively stand for the unit based outcomes in terms of the "internal mismanagements" and "externally driven dependencies" that aim at changing the relationships with stakeholders, impact the sustainability of the unit based market orientation as well as possess consequences for unit's ability to meet day to day expenses as well as probability of failure risk across small scale units in developing economies. As per the resource based view of firm the enterprise (small or medium sized) depends on the external resources, external infrastructure products and services as well as the prevailing market conditions and the quantum of demand

in the existing social economic systems to generate the revenue and the value for the stakeholders.

The exploratory factor analysis yields the loading of the sub scale items that load effectively into respective factor representing the phenomenon. The utility of the insistence on the exploratory factor analysis lies in the fact that it segregates the factors among the observed variables. In this case all the factors representing the small scale unit's outcome based were loaded collectively on the SPSS and the total number of variables gets reduced. The purpose is to reduce the overall set of sub scale items to a composite set of items that truly represent the phenomenon. In course of exploratory factor analysis, the variables with similar characteristics get clubbed together.

The research relies on the principal component analysis for identification and segregation of the factors that encourages the parsimonious identification of the constituent factors across the study perspective. Further the study incorporates the varimax rotation as iteration method as it is widely regarded as facilitating the comparatively easier selection and identification of the loading and correlated as well as the non-correlating factors. The principal component analysis was performed across the theoretical constructs of "outcomes" to examine the probability of the loading of the representative sub scale items across the constituent factors. The measured variables were examined with regard to the loading into the single factor. The measured variables were inter-correlated to yield the respective representative factors. The inter correlation ability of the survey data was assessed with aid of the Bartlett's test of sphericity which established the correlation matrix as the identity matrix. The significant value generation in this test points towards the prevalence of significant correlation based relationships across the majority of the assumed variables. In continuity, the Kaiser Meyer Olkin test measures the overall sampling adequacy so as to ascertain the sample adequacy and sufficiency. The test yielded a measure greater than 0.5 pointing towards the existence of the sample based adequacy prior to consideration of the extensive exploratory factor analysis. The SPSS was leveraged for the conduct of the factor analysis with preference to the oblimin rotation technique and principal component analysis. When analyzed with the exploratory factor based dimensional reduction in SPSS these outcomes were observed.

The communalities elaborate on the extent of variance. The corresponding values in this column signify the quantum of each variable's variance that is accessed by the retained factors in the aforesaid analysis. The variables with representative higher values denote the better representation than those with lower value propositions. For instance, in case of analysis of the "unit based outcomes" scale, the "unit-bank relationships (UBR) has values in range of 0.899 to 0.962, which signifies higher weight age and respective higher variance been observed. The small scale unit's relationship management capabilities thus assume more significance in current state of affairs as evident from the initial analysis. This has vital consequences for unit based performance and resultant outcomes of survival or decay in the short and long term proposition. The communalities assessment is essential to determine the factorability of data and all sub scale items exhibit Eigen values equal to one and initial extraction as lying between 0.5 and 0.962.

Table 5.21: KMO and Bartlett's Test: Outcome aspects

### KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of	.800	
Bartlett's Test of Sphericity	Approx. Chi-Square	4732.813
	df	171
	Sig.	0.000

**Table 5.22: Communalities across Outcomes** 

### **Communalities**

		Initial	Extraction
UBR3	We can never freely share concerns and problems about the unit and know that they will respond constructively	1.000	.899
UBR4	We can never freely share the concerns and problems regarding our unit and know that they will be interested in listening	1.000	.908
UBR5	We never share common business values with the bank	1.000	.932
UBR6	We feel that the bank will never act in a fashion consistent with what we recommend without prior discussion with us	1.000	.962
UBR7	Senior manager/promoter has no regular meetings with bankers	1.000	.936
UBR8	Our website is never updated with comprehensive management communications aimed at bankers	1.000	.920
AME1	The unit pays the obligations with difficulty as cash position is rarely monitored	1.000	.923
AME2	The unit is unable to meet operating costs	1.000	.929
AME3	The unit is unable to pay for acquiring the essential inputs	1.000	.802
MOF1 MOF2	In our market, the customers frequently demand new products or services We never monitor the level of commitment to serving customer's needs	1.000 1.000	.599 .847

...Factors leading to Industrial Sickness in SSEs: Factor Analysis and dimensional validity

MOF3	Our strategy for competitive advantage is never based on our understanding of customer needs	1.000	.802
MOF4	We never coordinate all of our business activities in order and organized manner to serve the needs of our target markets	1.000	.916
MOF5	We are never quick to respond to competitive actions that threaten us	1.000	.889
MOF6	We never discuss competitor's strengths and strategies	1.000	.899
MOF7	Our strategies are never driven by our beliefs about how we can create greater value for our customers	1.000	.848
FP1	The unit is experiencing high marginal losses	1.000	.921
FP2	The unit does not understand business environment	1.000	.933
FP3	The unit exercises no financial discipline	1.000	.947

Extraction Method: Principal Component Analysis.

The factor based variance analysis is next crucial aspect of the factor analysis methodology. The factors representing the construct were analyzed across the SPSS platform to evaluate the total variance exhibited by the diverse set of the constituent factors. The first section on the left hand side as exhibited in illustration below details on the initial Eigen values. As per review of existing literature and the existing best practices for the satisfactory factor analysis, these Eigen values essentially should be greater than 1. The IBM literature on SPSS defines the Eigen value figure as involving the assessment of the variance that is explained by each factor with total amount of the variability as observed across the analysis. Hence as per the participating entrepreneurs from across East and West Godavari regions in the southern state of Andhra Pradesh, the unit's relationship with stakeholder especially the banks exhibited the maximum percentage of variance amidst the total variable observed by the factors comprising the scale of entrepreneur's internal inefficiencies. The variance as observed was divided across the four constituent factors yet the constituent factor may or may not exhibit equal variance. This is evident in the SPSS outcomes that all the four factors [unit-bank relationships/stakeholder relations (UBR), unit based market orientation (MOF), Entrepreneurs perceived Failure Risk (FP) and ability to meet expenses (AME)] vary substantially with regard to their total contribution towards the composite scale based observed variance. In this case, all the five constituent factors exhibited an Eigen value of more than 1 signifying the tremendous weight and the proportion of the scale elements in overall survival and sickness based prospects of the units and their entrepreneurs in focus and further consideration for factor analysis and empirical calculations across SPSS.

Table 5.23: Variance Analysis: Outcomes Scale

**Total Variance Explained** 

			•	Extraction Sums of Squared Loadings			Rotation Sums of Squared
	Initia	ıl Eigenv	alues				Loadingsa
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1=Market Orientation 2=Unit Bank Relations 3=Failure Risk 4=Ability to Meet Expenses	9.257 4.164 2.679 1.713	48.719 21.915 14.101 3.751	48.719 70.634 84.735 88.486	9.257 4.164 2.679 .713	48.719 21.915 14.101 3.751	48.719 70.634 84.735 88.486	8.023 6.551 2.956 6.400

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

The factors are hence identified as:

Factor A: Perceived Market Orientation

Factor B: Unit-Bank relations (relations with stakeholders)

Factor C: Failure risk

Factor D: Perceived ability to meet expenses

The sectional scree plot further vindicates the trends as observed across the factor wide basis. The "scree plot" is widely regarded as the graphical representation of the variance analysis by each constituent factor under consideration. The scree plot (in preceding sections) clearly vindicates the cross component impact amongst the factors assumed for the analysis and consideration in this scale. In other words, the factors from "unit based market orientation" to "unit-stakeholder relationships", "ability to meet expenses" as well as "entrepreneur's perceived failure risk", equally matters in the scale based collective variance.

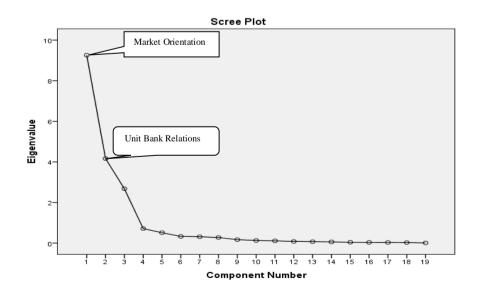


Figure 5.4: Scree Plot: Outcomes Scales

...Factors leading to Industrial Sickness in SSEs: Factor Analysis and dimensional validity

As evident in the scree plot above the graph witnesses' maximum change after the first factor (Market Orientation) which recorded the maximum observed variance of nearly 48 percent.

#### 5.6.1 Factor Loadings assessment

The purpose is to reduce the overall set of sub scale items to a composite set of items that truly represent the phenomenon. In course of exploratory factor analysis, the variable with similar characteristics gets clubbed together. The exploratory analysis focuses on the identification and segregation of the sub scale items that represents the phenomenon in variable manner.

Table 5.24: Oblimin Rotated Matrix: Outcomes Scale Pattern Matrix<sup>a</sup>

		Component			
		1	2	3	4
UBR3	We can never freely share concerns and problems about the unit and know that they will respond constructively		.969		
UBR4	We can never freely share the concerns and problems regarding our unit and know that they will be interested in listening		.937		
UBR5	We never share common business values with the bank		.982		
UBR6	We feel that the bank will never act in a fashion consistent with what we recommend without prior discussion with us		.973		
UBR7	Senior manager/promoter has no regular meetings with bankers		.956		
UBR8	Our website is never updated with comprehensive management communications aimed at bankers		.907		
AME1	The unit pays the obligations with difficulty as cash position is rarely monitored				1.016
AME2	The unit is unable to meet operating costs				.737
AME3	The unit is unable to pay for acquiring the essential inputs				.762
MOF1	In our market, the customers frequently demand new products or services	.667			
MOF2	We never monitor the level of commitment to serving customer's needs	.897			
MOF3	Our strategy for competitive advantage is never based on our understanding of customer needs	.947			
MOF4	We never coordinate all of our business activities in order and organized manner to serve the needs of our target markets	.909			
MOF5	We are never quick to respond to competitive actions that threaten us	.967			
MOF6	We never discuss competitor's strengths and strategies	.925			
MOF7	Our strategies are never driven by our beliefs about how we can create greater value for our customers	.673			
FP1	The unit is experiencing high marginal losses			.958	
FP2	The unit does not understand business environment			.964	
FP3	The unit exercises no financial discipline			.973	

Extraction Method: Principal Component Analysis.

Table 5.25: Detailed analysis of loading and Non-Loading sub scale Items

	Dimensions of Factors	Loading	
	FACTOR: Unit Bank Relationships		
UBR1	Designated managers have no responsibility for aiming to satisfy stakeholder's interests	No Loading	
UBR2	We never gather comparative information about our competitors to plan superior returns for our stakeholders	No Loading	
UBR3	We can never freely share concerns and problems about the unit and know that they will respond constructively	.969	>.5
UBR4	We can never freely share the concerns and problems regarding our unit and know that they will be interested in listening	.937	>.5
UBR5	We never share common business values with the bank	.982	>.5
UBR6	We feel that the bank will never act in a fashion consistent with what we recommend without prior discussion with us	.973	>.5
UBR7	Senior manager/promoter has no regular meetings with bankers	.956	>.5
UBR8	Our website is never updated with comprehensive management communications aimed at bankers	.907	>.5
	FACTOR : Ability to Meet Expenses		
AME1	The unit pays the obligations with difficulty as cash position is rarely monitored	1.016	
AME2	The unit is unable to meet operating costs	.737	>.5
AME3	The unit is unable to pay for acquiring the essential inputs	.762	>.5
AME4	The unit has decreased ability to pay for taxes	No Loading	>.5
AME5	The unit is facing fluctuations in cash inflows	No Loading	
AME6	The credit sales comprises a larger section and there are lot of slow paying customers	No Loading	
AME7	The bad debts are locking the capital unnecessarily	No Loading	
AME8	The unit rarely employs cash recovery and cash flow management practices	No Loading	
AME9	There is no practice of keeping accurate accounting records	No Loading	
	Factor: Market Orientation of Firms	<i>y</i>	
MOF1	In our market, the customers frequently demand new products or services	.667	>.5
MOF2	We never monitor the level of commitment to serving customer's needs	.897	>.5
MOF3	Our strategy for competitive advantage is never based on our understanding of customer needs	.947	
MOF4	We never coordinate all of our business activities in order and organized manner to serve the needs of our target markets	.909	>.5
MOF5	We are never quick to respond to competitive actions that threaten us	.967	>.5
MOF6	We never discuss competitor's strengths and strategies	.925	>.5
MOF7	Our strategies are never driven by our beliefs about how we can create greater value for our customers	.673	>.5
MOF8	The business objectives on the unit are never driven by customer satisfaction	No Loading	>.5
MOF9	Our offering of products / services to our customers never changes constantly	No Loading	
MOF10	In our market, the amount of products/services to be supplied changes often and quickly	No Loading	>.5
MOF11	In the market we operate in, each day something changes	No Loading	
MOF12	Of what happens in the market, nothing remains unknown to us	No Loading	
	Factor: Failure Risk		
FP1	The unit is experiencing high marginal losses	.958	>.5
FP2	The unit does not understand business environment	.964	>.5
FP3	The unit exercises no financial discipline	.973	>.5
FP4	The quality of relationships with stakeholders has degraded	No Loading	
FP5	The goodwill generation is negligent	No Loading	
FP6	The clusters of SMEs can be competitive against larger enterprises	No Loading	
FP7	With clustering the SMEs can be stronger against crisis	No Loading	
FP8	The unit generates a relatively lower return on assets than our competitors do	No Loading	
FP9	The unit has no cost advantage compared to major competitor	No Loading	

Source: SPSS Outcome

The table above underlines and separates the loading items from unloading items. The loading sub scale items exhibited loading greater than 0.5 to 0.9 and were observed to load against the factor itself. The principal component analysis methodology with oblimin rotation technique was operationalized for seeking factor loadings across pattern matrix.

The first factor that loads successfully across "non-promoter driven dependencies" scale is "insufficient factor endowments". This factor exhibited an Eigen value of

9.257 which in other terms correspond to 48.719 percentage of total observed variance. In total there were twelve variables that were operationalized to quantify this factor yet they got reduced to seven variables that were observed to truly represent the factor. These seven variables are (variable one: MOF1-In our market, the customers frequently demand new products or services, variable two: MOF2-We never monitor the level of commitment to serving customer's needs, variable three: MOF3-Our strategy for competitive advantage is never based on our understanding of customer needs, variable four: MOF4-We never coordinate all of our business activities in order and organized manner to serve the needs of our target markets, variable five: MOF5-We are never quick to respond to competitive actions that threaten us, variable six: MOF6-We never discuss competitor's strengths and strategies and variable seven: MOF7-Our strategies are never driven by our beliefs about how we can create greater value for our customers). All seven variables exhibited strong factor loadings ranging between satisfactory limit of 0.7 to 0.9.

The next factor with satisfactory loading is "imbalanced unit-bank relations". This factor exhibited an Eigen value of 4.164 and contributed to 21.915 per cent of total reported variance by scale elements. This factor was measured with eight variables yet only six variables reported strong and satisfactory loadings (UBR3, UBR4, UBR5, UBR6, UBR7, UBR8).

The third factor loading is "failure risk". This factor exhibited an Eigen value of 2.679 and contributed to 14.101 per cent of total reported variance by scale elements. This factor was measured with nine variables yet only three variables reported strong and satisfactory loadings (FP1, FP2, FP3).

Following to this analysis, "ability to meet expenses" loaded as fourth factor. From across nine variables, three variables (AME1, AME2, AME3) were observed to exhibit loadings in range of 0.7 to 0.9. This factor exhibited maximum Eigen value of 1.713 and corresponded to 3.751 per cent of total variance by scale based factors.

#### 5.6.2 EFA across Districts

On basis of the responses from across the three selected districts of East Godavari, West Godavari and Krishna, the following variances were observed. The four constituent factors of the scale were analyzed with regard to the district wide variances as reported here. The entrepreneurs from across West Godavari were reported to indulge in least sharing of concerns and problems about the unit. Further the entrepreneurs reported that it was most difficult to expect constructive response from banker officers. Entrepreneurs from West Godavari region reported that bank officers were least interested in listening. The bank-unit relations are indeed troublesome yet the entrepreneurs from across East Godavari were observed to be most concerned with regard to sharing common business values with the bank as well as perceived that bank will never act in a fashion consistent with what the unit recommends.

Table 5.26: District wide Differences

		East Godavari	West Godavari	Krishna
UBR3	We can never freely share concerns and problems about the unit and know that they will respond constructively	.942	1.043	931
UBR4	We can never freely share the concerns and problems regarding our unit and know that they will be interested in listening	.929	.942	949
UBR5	We never share common business values with the bank	1.004	.936	975
UBR6	We feel that the bank will never act in a fashion consistent with what we recommend without prior discussion with us	.989	.953	959
UBR7	Senior manager/promoter has no regular meetings with bankers	.964	.908	969
UBR8	Our website is never updated with comprehensive management communications aimed at bankers	.932	.924	894
AME1	The unit pays the obligations with difficulty as cash position is rarely monitored	.993	.934	.865
AME2	The unit is unable to meet operating costs	.748		.930
AME3	The unit is unable to pay for acquiring the essential inputs	.794		.778
MOF1	In our market, the customers frequently demand new products or services	1.001		
MOF2	We never monitor the level of commitment to serving customer's needs	.919	.998	.709
MOF3	Our strategy for competitive advantage is never based on our understanding of customer needs	.717	.897	1.011
MOF4	We never coordinate all of our business activities in order and organized manner to serve the needs of our target markets	.801	.977	.690
MOF5	We are never quick to respond to competitive actions that threaten us	.941	.991	.691
MOF6	We never discuss competitor's strengths and strategies	.941	.955	.788
MOF7	Our strategies are never driven by our beliefs about how we can create greater value for our customers	.736	.837	
FP1	The unit is experiencing high marginal losses	.956	.964	.960
FP2	The unit does not understand business environment	.953	.963	.950
FP3	The unit exercises no financial discipline	.970	.998	.951

**Findings:** The entrepreneurs from Krishna district were most concerned about lack of regular meetings with bankers. Whereas entrepreneurs from East Godavari were observed to be most skeptical regarding lack of website being updated with comprehensive management communications. Entrepreneurs from across East Godavari based units reported most strong loadings for difficulty being faced as unit based internal cash position is rarely monitored. The SSI unit as being unable to meet

operating costs was rampant from East Godavari based units in most visible propositions.

In nutshell we can summarize the factor based variations as:

Table 5.27: Summarizing the Factor Loadings

Factor Name	Factor Loading	Label	Constituent variables included in the factor						
Banks	.969	UBR3	We can never freely share concerns and problems about the unit and know that they will respond constructively						
s with	.937	UBR4	We can never freely share the concerns and problems regarding our unit and know that they will be interested in listening						
hips	.982	UBR5	We never share common business values with the bank						
Unit's relationships with Banks	.973	UBR6	We feel that the bank will never act in a fashion consistent with what we recommend without prior discussion with us						
[5]	.956	UBR7	Senior manager/promoter has no regular meetings with bankers						
Unit's	.907	UBR8	Our website is never updated with comprehensive management communications aimed at bankers						
ns et 5	1.016	AME1	The unit pays the obligations with difficulty as cash position is rarely monitored						
Ability to meet Expens	.737	AME2	The unit is unable to meet operating costs						
<b>₹ 8 ₹</b>	.762	AME3	The unit is unable to pay for acquiring the essential inputs						
	.667	MOF1	In our market, the customers frequently demand new products or services						
J. ja	.897	MOF2	We never monitor the level of commitment to serving customer's needs						
on of I	.947	MOF3	Our strategy for competitive advantage is never based on our understanding of customer needs						
Market Orientation of Unit	.909	MOF4	We never coordinate all of our business activities in order and organized manner to serve the needs of our target markets						
Ö	.967	MOF5	We are never quick to respond to competitive actions that threaten us						
rket	.925	MOF6	We never discuss competitor's strengths and strategies						
Maı	.673	MOF7	Our strategies are never driven by our beliefs about how we can create greater value for our customers						
H	.958	FP1	The unit is experiencing high marginal losses						
Failur e Risk	.964	FP2	The unit does not understand business environment						
T T	.973	FP3	The unit exercises no financial discipline						

# 5.7 Confirmatory factor analysis outcomes

The confirmatory factor analysis is the final leg of the factor analysis which aims at the explicit model of the factor structure underlying the collected primary data and the purpose is to statistically examine the fit of the data across the model. The existing literature elaborates on the need for confirmatory factor analysis as vital for the scale refinement and appropriate measure development. The standard practice for use of confirmatory factor analysis enlists the confirmatory factor analysis as essential for evaluation and confirmation of the hypothesis and the causal relationships across the two variables as achieved in the hypothetical modeling of the hypothesized variables.

Table 5.28: Confirmatory factor analysis outcomes

Item	Factors and Sub scale dimensions	Loading
	Factor: Lack of Entrepreneurial Orientation	
EO_1	We never value new strategies/plans even if we are not certain that they will always work	0.953
EO_2	We never encourage people in our unit to take risks with new ideas	0.959
EO_4	We never try to discover additional needs of our customers of which they are unaware	0.925
EO_7	There is no emphasis on R&D and technological leadership	0.981
EO_8	There is no willingness to adopt very competitive posture toward the competitors	0.817
	Factor: Faulty Resource based Planning	
RP_2	Lacks technological capabilities and equipment	0.910
RP_3	Lacks market Knowledge	0.564
RP_4	Lacks control and access to distribution channels	0.377
	Factor: Lack of Occupational competency	
0_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	0.708
O_2	During the past year, I was, in general, incompetent to perform my work accurately and with few mistakes	0.557
O_3	During the past year, I was in general, incompetent to take prompt decisions with respect to my approach to work	0.704
	Factor: Inappropriate Managerial Control	
M_1	To what extent the past diversion of funds contributed to misfit and current state of affairs	0.857
M_2	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources	0.832
M_4	Does the inability and failure to extract maximum possible from the current employees leading to current state?	0.991
_		-
CU4	Factor: Inadequate Capacity Utilization  To what extent the installed machinery usage suffers on account of lack of professional knowledge	0.749
CU5	To what extent the instance machinery usage suries on account of fack of processional knowledge.  To what extent shortage of finance leads to reduced turnover	0.749
	Factor: Change in Economy	/
CE2	Firm's products are facing market based recession and lack of demand	0.925
CE2	The firm faces competition from the availability of the alternatives or substitutes	0.923
CE5	The price of product is stagnant for a longer time period	0.925
	Factor: Factor Endowments	
F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials	.967
F 3	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity	.941
F 4	To what extent the price related volatility and increased input costs impacted the productive capacity of the unit	.930
F_5	To what extent the raw material shortages impact overall productivity	.931
F_6	To what extent the non-availability of local labor impacts the productive usage?	.912
F_7	To what extent the unit is under financed in terms of working capital and fixed asset acquisition	.885
	Factor: Access to credit	
BCR_1	Bank loans are never easily available for us	0.626
BCR_2	Capital from suppliers or customers is never easily available for us	0.855
BCR_3	Capital from other sources is easily available for us	1.159
BCR_5	Relative to competitors we have no advantageous financial resources	0.796
	Factor: Policy Uncertainty	
PU_1	There is no provision of level playing field with fiscal and non-fiscal incentives for small sector promotion, trade agreements, export promotion and tax holidays and duty rationalization	0.949
PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages	0.985
PU_4	Large number of rules and regulations for getting concession, subsidy and aid for industry establishment	0.975
PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor	0.913
PU_6	No waivers on stamp duty, registration charges, taxes, government charges for tender participation	0.911
	Factor: Infrastructure Hassles	
INF_1	To what extent there was incomplete and poor quality access to power supply at your end	0.904
INF_2	How far and how occasionally you face transportation and communication problems at your industrial premises?	0.893
INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain inventories	0.968
INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units in state	0.965
	Factor: Unit Bank Relationships	
UBR3	We can never freely share concerns and problems about the unit and know that they will respond constructively	0.909
UBR4	We can never freely share the concerns and problems regarding our unit and know that they will be interested in listening	0.919
UBR5	We never share common business values with the bank	0.953
UBR6	We feel that the bank will never act in a fashion consistent with what we recommend	
	without prior discussion with us	0.984
UBR7	Senior manager/promoter has no regular meetings with bankers	0.957
UBR8	Our website is never updated with comprehensive management communications aimed	0.932
	at bankers	0.752

	Factor: Ability to meet expenses					
AME1	The unit pays the obligations with difficulty as cash position is rarely monitored	0.886				
AME2	The unit is unable to meet operating costs	0.996				
AME3	The unit is unable to pay for acquiring the essential inputs	0.778				
	Factor: Market Orientation of firm					
MOF1	In our market, the customers frequently demand new products or services	0.662				
MOF2	We never monitor the level of commitment to serving customer's needs	0.873				
MOF3	Our strategy for competitive advantage is never based on our understanding of customer	0.822				
	needs	0.022				
MOF4	We never coordinate all of our business activities in order and organized manner to serve	0.958				
	the needs of our target markets	0.550				
MOF5	We are never quick to respond to competitive actions that threaten us	0.919				
MOF6	We never discuss competitor's strengths and strategies	0.932				
MOF7	Our strategies are never driven by our beliefs about how we can create greater value for	0.909				
	our customers	0.909				
	Factor: Failure risk					
FP1	The unit is experiencing high marginal losses	0.936				
FP2	The unit does not understand business environment	0.941				
FP3	The unit exercises no financial discipline	0.971				

Responses were obtained with aid of a likert based measurement instrument with 1=Strongly Disagree and 7= Strongly Agree

# 5.8 Summary of Chapter

The validity analysis or the dimensional validity analysis exhibited the outcomes in the satisfactory range as mentioned here

Table 5.29: Tools as applied and outcomes for EFA

Test	Rationale	Satisfactory Range	Our Outcomes
KMO-Bartlett's	Assessment of factorability	0.5to 0.99	0.7-0.8
Factor Loadings in Pattern Matrices	Assessment of dimensionality	0.5 to 0.99	0.8-0.9
Communalities	Assessment of correlation in matrices	0.5 to 0.9	0.8 to 0.9
Eigen Values	For factor variance analysis	Greater than 1	Yes

This corresponds to achievement of satisfactory and statistically significant dimensional validity of the data hence collected from across likert scales. This also points to sample adequacy as the factor loadings are in range of 0.7 to 0.99 and fulfills the conditions for structural equation modeling as well. The validated scales and loading sub scale dimensions hence represent the aspects which truly represent the factors in question.

...Factors leading to Industrial Sickness in SSEs: Factor Analysis and dimensional validity

The validity analysis or the dimensional validity analysis exhibited the outcomes in the satisfactory range as mentioned here.

Table 5.30: Summarizing reliability assessment

Test	Rationale			Satisfactory Range	Our Outcomes
Cron Bach Alpha	Assessment homogeneity	of	internal	0.5to 0.99	0.8-0.9

This corresponds to achievement of satisfactory and statistically significant internal consistency and internal homogeneity of the data hence collected from across likert scales. The chapter reflected on ascertainment of internal reliability of measures and factors as comprising the scale. This was observed as essential to ascertain the internal homogeneity of responses.

# 6 Hypothesis Testing: Examining Promoter & Non Promoter Influences

#### 6.1 Introduction

The research converged at this conceptual model which exemplifies the cross construct linkages. The modeling of structural relationships is accomplished across this chapter with AMOS version release 21.0. This chapter explores the causal relationships amongst the promoter and non-promoter driven factors in leading to organizational failure aspects as an outcome.

# 6.2 Data-Screening: Correlation Analysis

The correlation matrix for the scale revealed the pattern and extent of inter item correlations amongst the constituent factors of the scale for entrepreneur driven internal inefficiencies. The factors were observed to bear statistically significant correlation amongst each other. This is tantamount to saying that promoter's deficiencies are co-promoting each other and one aspect of internal inability is leading to decline in other ability.

Table 6.1: Inter-Component Correlation Matrix: Entrepreneur driven Internal Inefficiencies

Component Correlation Matrix<sup>a</sup>

Component Correlation Matrix										
Component	EO	RP	M	CU	0					
EO	1.000	.124	.172	.536	.435					
RP	.124	1.000	.048	.170	.091					
M	.172	.048	1.000	.082	.068					
CU	.536	.170	.082	1.000	.330					
O	.435	.091	.068	.330	1.000					

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

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As evident, the entrepreneurial orientation seems to directly impact the resource planning abilities and the unit based resourcefulness in short and long term proposition. This can be interpreted as the direct influence of the unit's promoter in securing and allocation of resources as well as the sustenance of the unit based resourcefulness in competitive marketplace. Earlier studies have also vindicated the crucial role of the entrepreneur and his entrepreneurial orientation in shaping the prospects for unit based resourcefulness, managerial abilities or non-abilities, capability utilization as well as the occupational expertise and commitment towards

the profession in general. In similar perspective, the unit's entrepreneur and his orientation seems to impact the small scale unit's ability and capability to efficiently control the unit. As observed in the correlation matrix, the "entrepreneurial orientation" seems to influence the installed capacity utilization 0.5 times. In literal terms this is tantamount to saying that entrepreneurial orientation matters and that the entrepreneur's "entrepreneurial orientation" seems to shape and impact the extent to which the installed capacity base (installed assets, machineries, plant equipments and other associated tools) are properly and appropriately put to use for economic production and revenue generation.

In similar perspective, the resource planning as initiated in the unit seems to possess consequences for the capacity utilization. The presence of effective resource planning in the unit, was observed to lead to a 0.170 times positive change in the probability of unit's ability to seek capacity utilization in a better manner and fashion. In other words, the failure of the unit based promoter to deploy effective and timely resource planning could have consequences for the consistent usage of the installed machinery and plants. This is vindicated across the global research on the survival and revival of the sick units in small scale sector across the Asian and African economies.

The similar trend was observed across the studies in Southern American context as well as developing Asian perspective that too highlighted the linkages across the entrepreneur's resource management capabilities and the respective appropriate usage of the installed achiness across the small scale unit. The MSME report on the sector too emphasizes the resource and their planned usage as central to the preservation and sustenance of the capacity utilization abilities and appropriate conversion of raw materials into meaningful products with marketable value. The report further illustrated that the constituent units across the small sector seem to focus more on symbolism and artificial leadership that evades the focus on the resource planning and hence the challenges for the economic utilization of the assets and plants.

The entrepreneur's orientation also seems to impact the occupational commitment and indulgence in the operations and management of the unit. The entrepreneur cannot escape the responsibility of resource planning, controlling the unit, the responsibility of efficient usage of installed capacity as well as the commitment to the chosen profession of manufacturing. The earlier studies and conceptual frameworks too

vindicate the substantial relationship across the assumed factors and their unit based prevalence.

Table 6.2: Inter-Component Correlation Matrix: External Dependencies

**Component Correlation Matrix** 

Component	CE	F	BCR	PU	INF				
CE	1.000	.249	375	.168	.305				
F	.249	1.000	204	.267	.337				
BCR	375	204	1.000	059	.386				
PU	.168	.267	059	1.000	.115				
INF	.305	.337	386	.115	1.000				

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

This is clear from the above illustration that the external changes in economy(CE) seems to directly impact the unit based perceptions of factor endowments(F) and the unit based perceptions of availability of bank credit(BCR) in short and long term proposition. Such an outcome in SPSS can be interpreted as the direct influence of the external changes and dynamism in economic environment on the unit based access to factors of production. In other terms this illustrates the impact of the economic turbulence (CE) on the perceived unit based ability to acquire factor endowments (F), ability to access funds from across the banking organizations (BCR), extent of policy based uncertainty (PU) and changes in government support as well as the perceptions of infrastructure availability with regard to sustenance of production across the unit.

The inter factor correlation analysis further illustrates the linkages across the multiple cross factor aspect. The unit's perceptions with regard to external economic conditions (CE) seem to be negatively related with demand for credit or loans (BCR) from across the banking organizations. This linkage provides insights into the dominance of the phenomenon of the different patterns of unit based requirements and complexities. The unit's self-assessment with regard to economic demand, market structure and macro-economic conditions, was observed to be impacting the unit's access to credit from the banks and other financial institutions. The observed negative relationship strengthens the earlier findings that "micro-economic" and "macro-economic" turbulence is bad for small scale units and that the external economic instability often leads to decline in credit sanctioning by the banks for small scale manufacturing in developing economies.

The unit's ability to sustain seems to be equally affected by the "changes in external economy" across the "policy based uncertainty from government" as well as the "infrastructure based hassles". The analysis reported the incidence of the substantial impact of same. In similar stance, the prevalence of policy based uncertainty was reported to lead to 0.167 times increase in economy wide imbalances and an expected 0267 times increase in the factor endowment based imbalances.

The observed unit based perceived "infrastructural hassles" were observed to lead to a 0.305 times change in the perceptions of the economy and demand based conditions, 0.115 times change in policy based uncertainty as well as 0.386 times change in the perceived bank credit availability. The existing literature and research studies have also vindicated the crucial role of the "changes in external economy" in shaping the prospects for unit based access to bank credit, factor endowment availability, infrastructural hassles as well as the emergence of the policy based uncertainties and the changes in pattern and scope of governmental support for marketing, market access, technology funding and export promotion.

**Table 6.3: Inter-Component Correlation Matrix: Outcomes** 

**Component Correlation Matrix** 

Component Confidence Matrix										
Component	MOF	UBR	FP	AME						
MOF	1.000	.328	.056	.736						
UBR	.328	1.000	.140	.272						
OF	.056	.140	1.000	039						
AME	.736	.272	039	1.000						

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

The above illustration vindicates the existence of substantial inter factor impact across the unit-bank relations (UBR), market orientation of unit (MOF) and the unit based financial performance(FP). The inter item correlation suggest the prevalence of significant amongst the factors of "unit-bank relations (UBR)" and the "market orientation of unit (MOF)". The correlation analysis across SPSS pointed towards 0.336 times increase in unit's market orientation on account of the sustainable or functional unit —bank relations (or the unit's relationships with the stakeholders especially the bank). This observation can be inferred as significant impact of the negative unit and bank relations of sustainability of unit's market orientation. In other words this is tantamount to saying that the unit's spoiled relations with banks and stakeholders is significantly going to create challenges for the sustainability of the respective unit based market viability and orientation for success in developing markets. In terms of sub scale items, the non-ability of the incumbent unit to freely

share financial concerns and problems about the unit and non-sharing of common business values with the bank; could be detrimental for the unit in terms of its ability to fulfill customer's demands for new products, maintain the current level of commitment to serving customer's needs as well as sustain the current level of competitive advantage. It could also be deduced that the respective decline in unit and stakeholder relationships could prove detrimental to unit's ability to coordinate all of business activities in order and organized manner to serve the needs of target markets. The absence of common platform between the unit and bank (stakeholder) could mar the prospects for the unit to offer desired and demanded new products or services. In similar stance, the non-ability of the incumbent unit to freely share the concerns and problems regarding the unit and non-interest of the stakeholders (bank) in listening to the concerns of the unit could lead to stagnation in growth as well as dampen the ability to quickly respond to competitive actions that threaten the competitiveness of the aforesaid unit in question. The good relations point to workable market orientation of unit that essentially sustain unit based survival whereas the existing literature points out that the spoiled unit-bank relations could lead to unhealthy or nonfunctional market orientation and hence the sickness in operations and loss of revenues as well.

In association, the unit based market orientation (MOF) was observed to possess a significant relationship with unit based financial performance (FP). The observed incidence of the 0.139 times significant impact of the unit based market orientation (MOF) on the unit based financial performance (FP) pertains to the existence of the direct linkages between the market orientation and revenue generation and cash inflow creation ability of the unit in focus. Across the various studies and conceptual research frameworks, the cash generation ability of the unit is held vital for unit based survival and revival prospects. In similar sense, the non-ability of the unit to create cash inflows could be believed to lead to a state of dismal financial performance as well as the probability of the unit based sickness. It is thus self-evident that the unit based market orientation seems to directly impact the cash generation abilities and the unit based liquidity in short and long term proposition. This can be interpreted as the direct influence of the unit's promoter in securing and allocation of resources as well as the sustenance of the unit based resourcefulness in competitive marketplace.

The covariance analysis also figures out the presence significant cross factor relationships. The covariance analysis was conducted to review the state of extent of

relationships amongst the factors considered for study and following outcomes were observed.

**Table 6.4: Covariance Analysis: AMOS based** 

	F	BCR	INF	PU	CE	EO	M	CU	RP	0	MOF	UBR	AME	FP
F	1													
BCR	0.134	1												
INF	0.204	0.249	1											
PU	0.161	0.140	0.222	1										
CE	0.290	0.023	0.024	0.222	1									
EO	0.061	0.034	0.123	0.308	0.096	1								
M	0.006	0.024	0.030	0.095	0.090	0.106	1							
CU	0.095	0.074	0.098	0.196	0.055	0.079	0.126	1						
RP	0.072	0.128	0.122	0.060	0.004	0.049	0.048	0.163	1					
О	0.130	0.026	0.259	0.067	0.048	0.180	0.067	0.098	0.059	1				
MOF	0.118	0.080	0.180	0.054	0.089	0.137	0.016	0.062	0.096	0.162	1			
UBR	0.246	0.253	0.590	0.006	0.165	0.079	0.027	0.057	0.187	0.008	0.023	1		
AME	0.117	0.071	0.220	0.069	0.124	0.130	0.092	0.064	0.099	0.144	0.128	0.034	1	
FP	0.166	0.096	0.291	0.082	0.169	0.176	0.108	0.104	0.150	0.214	0.180	0.039	0.177	1

The covariance analysis reveals incidence of statistically significant 'covariance' across factor problems (F), bank credit availability problems(BCR), infrastructure related problems(INF), policy uncertainty related problems (PU), entrepreneurial orientation problems (EO), managerial control related problems(M), capacity utilization related problems(CU), resource planning related problems(RP), occupational commitment related problems(O), unit-bank relations related problems(UBR), ability to meet expenses (AME) and failure risk(FP).

# 6.3 Hypothesis testing with SEM

#### **6.3.1 Structural Equation Modeling**

The path based structural linkages across the independent and the dependent variables were analyzed with aid of the path modeling software AMOS. The method identifies as a multiple regression modeling tool which ascertains the modeling of inter factor influences. The data as validated and refined in factor analysis was leveraged for structural equation modeling. The respective model data fit indices were obtained and impact was quantified as mentioned in sections below.

#### 6.3.2 Model fit Indices

The model fit indices exhibit the extent to which data actually fits the model. The RMSEA fit index of 0.184 and CMIN index of 5.0 which represents a satisfactory fit achievement. The NFI measure of 0.593, RFI measure of 0.371, CFI measure of 0.615 also point towards the achievement of satisfactory fit across the variables. This in turn reflects the achievement of the satisfactory model fit.

**Table 6.5: Model Fit Indices** 

#### **CMIN**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	51	500.213	68	.000	5.0
Saturated model	119	.000	0		
Independence model	14	1228.184	105	.000	11.697

### **Baseline Comparisons**

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.593	.371	.627	.406	.615
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.648	.384	.398
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

**RMSEA** 

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.184	.169	.199	.000
Independence model	.239	.227	.251	.000

Source: AMOS Output

### 6.3.3 Aggregate effect modeling

The structural relation between "promoter" aspects, "non-promoter" aspects and "unit based sickness" were formally evaluated in a structural model as specified in the figure below. The promoter behavior and promoter's perceptions of non-promoter aspects were observed as shaping unit based sickness.

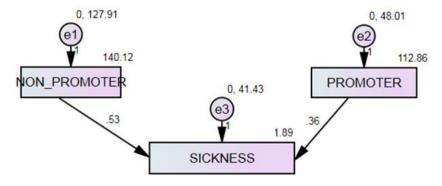


Figure 6.1: Composite effect modeling: Promoter & Non-Promoter aspects as influencing industrial sickness

Source: AMOS Outcomes

Where Promoter\_Behavior = CU (Inadequate Capacity Utilization)+ M(Inadequate Managerial control),+RP(Inappropriate Resource Planning+ O(Lack of Occupational Commitment)+ EO=Lack of Entrepreneurial Orientation

 $\label{eq:perceptions_NonPromoter} Perceptions\_NonPromoter = F(Factor\ Endowments),\ INF(Infrastructure\ Hassles) + BCR(Bank\ credit\ availability) + PU(Policy\ Uncertainty) + CE(Changes\ in\ Economy)$ 

Sickness=UBR= Unit's bank relationship, MOF=Market orientation of firm, AME=Ability to meet expenses

The structural diagram above illustrates the impact of non-promoter factors and promoter driven factors on 'industrial sicknesses. This upholds the assumption that industrial unit sickness is not uni-dimensional rather multi-dimensional and is contextual in nature.

H0<sub>1</sub>: Promoter behavior is strongly related with sickness

H<sub>02</sub>: Perceptions of non-promoter aspects is strongly related with sickness

Hypothesis		Relationships				C.R.	P
$H0_1$	SICKNESS	<	PROMOTER	.363	.075	4.838	***
$H0_2$	SICKNESS	<	NON_PROMOTER	.525	.046	11.420	***

The two hypothesis of this study argue that promoter and promoter's perceptions of non-promoter factors would be positively related to industrial sickness probability.

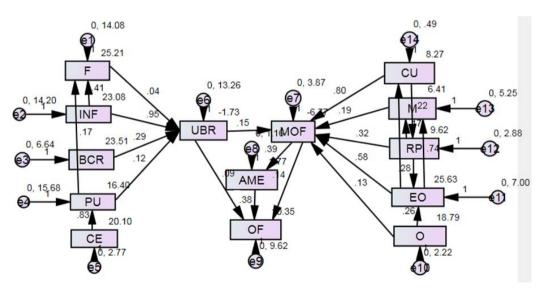


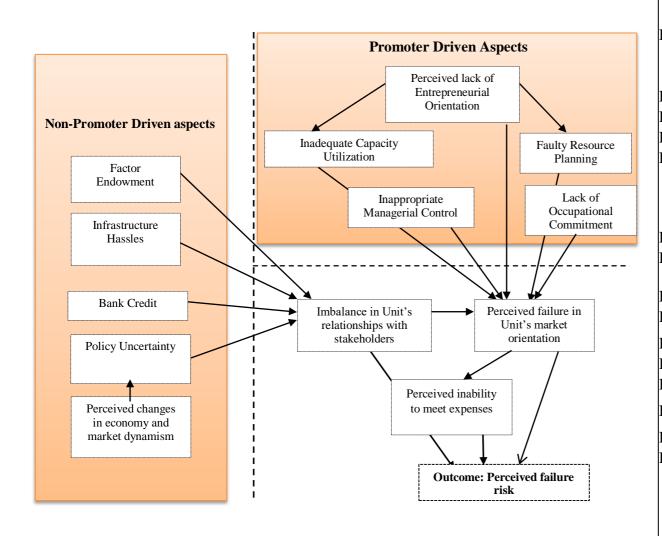
Figure 6.2: Aggregate main effect mode: Paths and related information on causal linkages

Source: AMOS Outcomes

Where F=Factor Endowments, INF=Infrastructure Hassles, BCR=Bank credit availability, Policy Uncertainty, CE=Changes in Economy, UBR= Unit's bank relationship, MOF=Market orientation of firm, AME=Ability to meet expenses, OF=Organizational failure/Sickness/Lack of financial performance, CU =Inadequate Capacity Utilization, M=Inappropriate Managerial control, RP=Inadequate Resource Planning, EO=Lack of Entrepreneurial Orientation, O=Lack of Occupational Commitment

The observed indicators of non-promoter driven aspects were 'factor endowments', 'infrastructure hassles', 'bank credit availability', 'policy uncertainty', 'changes in economy' and promoter based aspects were quantified with aid of 'capacity utilization', 'managerial control', 'resource planning', 'entrepreneurial orientation', 'occupational commitment'. It is worth mentioning here that the aggregate main effect structural model is a possible depiction of the hypothesized relationships. The path estimates (β) critically point towards statistically significant impact of independent factors on the dependent factors. The structural relationships as depicted in figure below points towards substantial influence of "promoter" aspects and "non-promoter" aspects on "market orientation loss" and "unit based sickness".

# ... Hypothesis Testing: Examining Promoter & Non Promoter Influences



Source: AMOS Outcome

	Relation	ships		Estimate (β)
	Lack of Entrepreneurial Orientation	<	Lack of Occupational Commitment	.261
Н6	Policy Uncertainty	<	Changes in Economy	.832
	Factor Endowments	<	Infrastructure Hassles	.414
	Factor Endowments	<	Policy Uncertainty	.168
H7	Unit Bank Relations	<	Policy Uncertainty	.123
H8	Unit Bank Relations	<	Bank Credit	.294
Н9	Unit Bank Relations	<	Infrastructure Hassles	.950
H10	Unit Bank Relations	<	Factor Endowments	.044
	Managerial Control	<	Lack of Entrepreneurial Orientation	.740
	Managerial Control	<	Resource Planning	.174
H11	Market Orientation of Firm	<	Unit Bank Relations	.153
H1	Market Orientation of Firm	<	Lack of Entrepreneurial Orientation	.580
H2	Market Orientation of Firm	<	Managerial Control	.186
Н3	Market Orientation of Firm	<	Occupational Commitment	.133
H4	Market Orientation of Firm	<	Resource Planning	.319
H5	Market Orientation of Firm	<	Capacity Utilization	.795
H13	Ability to meet expenses	<	Market Orientation of Firm	.387
H15	Organizational Failure	<	Ability to meet expenses	.384
H12	Organizational Failure	<	Unit Bank Relations	.092
H14	Organizational Failure	<	Market Orientation of firm	.142
	Capacity Utilization	<	Lack of Entrepreneurial Orientation	.157
	Resource Planning	<	Capacity Utilization	.216
	Lack of Entrepreneurial Orientation	<	Resource Planning	.281

#### 6.3.4 Mapping effect of 'Entrepreneurial Orientation'

H0<sub>3</sub>: The promoter's 'entrepreneurial orientation' influences 'promoter behavior' and 'perceptions of non-promoter aspects' as well as outcomes in significant manner.

The hypothesis argue that promoter (entrepreneur) as an agency and his 'entrepreneurial orientation' significantly impacts behavior and sickness based outcomes. The test for this hypothesis while controlling for 'entrepreneurial orientation' revealed two possible structural arrangements. The structural arrangements exhibited that 'EO' at aggregate level corresponded to impacts on 'promoter behavior' and 'perceptions of non-promoter aspects' as well as outcomes in significant manner. Thus the hypothesis stands supported. This is equivalent to saying that EO influences 'promoter behavior', 'perceptions of non-promoter aspects' and 'outcomes' in myriad forms and aspects. The below mentioned structural models hence capture the two distinct patterns of influences.

#### Structural Model I: EO as influencing sickness

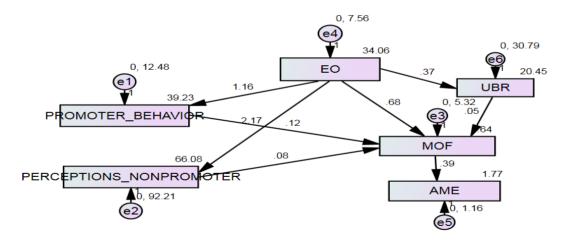


Figure 6.3: Structural Model I: EO as influencing sickness

Source: AMOS Outcomes

Where Promoter\_Behavior = CU (Inadequate Capacity Utilization)+ M(Inadequate Managerial control),+RP(Inappropriate Resource Planning+ O(Lack of Occupational Commitment)+ EO(Lack of Entrepreneurial Orientation)

Perceptions\_NonPromoter= F(Factor Endowments), INF(Infrastructure Hassles)+ BCR(Bank credit availability)+PU(Policy Uncertainty) + CE(Changes in Economy)

UBR= Unit's bank relationship, MOF=Market orientation of firm, AME=Ability to meet expenses EO=Entrepreneurial Orientation

**Table 6.6: Path relationships** 

R	elation	ship	Estimate	S.E.	C.R.	P	Label
PROMOTER_BEHAVIOR	<	EO	1.162	.104	11.189	***	par_3
PERCEPTIONS_NONPROMOTER	<	EO	2.173	.281	7.726	***	par_4
UBR	<	EO	.367	.163	2.260	.024	par_7
MOF	<	PROMOTER_BEHAVIOR	.124	.053	2.360	.018	par_1
MOF	<	PERCEPTIONS_NONPROMOTER	.085	.019	4.370	***	par_2
MOF	<	EO	.684	.101	6.763	***	par_6
MOF	<	UBR	.050	.033	1.483	.138	par_8
AME	<	MOF	.387	.023	16.892	***	par

Source: AMOS Outcomes

As evident, promoter and his 'entrepreneurial orientation was observed to be affecting the general promoter behavior and perceptions of non-promoter aspects in decision making. The 'entrepreneur' as an 'agency' was observed as strongly shaping behaviors with model fit indices of RMSEA of 0.294 and CFI of 0.801. The promoter's 'entrepreneurial orientation' was observed to lead to 1.162 times increase behavior' 2.173 'promoter and times increase 'Perceptions\_NonPromoter'. Simply interpreted this is tantamount to saying that 'entrepreneurial orientation' is the primary factor or the attribute that shapes behavior and perceptions of promoter with regard to external aspects. In continuity the 'promoter behavior' aspect was observed to lead to 0.124 times increase in 'market orientation' and 'Perceptions NonPromoter' aspect was observed to lead to 0.085 times increase in 'market orientation'.

### Structural Model II: EO as influencing behavior and outcomes

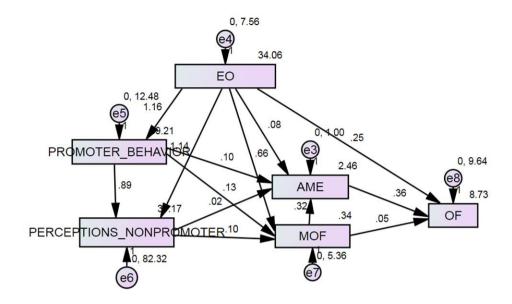


Figure 6.4: Structural Model II: EO as influencing behavior and outcomes

Source: AMOS Outcomes

Where Promoter\_Behavior = CU (Inadequate Capacity Utilization)+ M(Inadequate Managerial control),+RP(Inappropriate Resource Planning+ O(Lack of Occupational Commitment)+ EO(Lack of Entrepreneurial Orientation)

 $\begin{aligned} Perceptions\_NonPromoter &= F(Factor\ Endowments),\ INF(Infrastructure\ Hassles) + BCR(Bank\ credit\ availability) + PU(Policy\ Uncertainty) + CE(Changes\ in\ Economy) \end{aligned}$ 

UBR= Unit's bank relationship, MOF=Market orientation of firm, AME=Ability to meet expenses EO=Entrepreneurial Orientation

As per alternative modeling of influences, promoter's 'entrepreneurial orientation' was observed to lead to 1.162 times increase in 'promoter behavior' and 2.173 times increase in 'Perceptions\_Non Promoter'. In continuity the 'promoter behavior' aspect was observed to lead to 0.367 times increase in 'market orientation' and 'Perceptions\_Non Promoter' aspect was observed to lead to 0.124 times increase in 'market orientation'.

**Table 6.7: Path Relationships** 

Re	lation	ship	Estimate	S.E.	C.R.	P	Label
PROMOTER_BEHAVIOR	<	EO	1.162	.104	11.189	***	par_3
PERCEPTIONS_NONPROMOTER	<	EO	2.173	.281	7.726	***	par_4
UBR	<	EO	.367	.163	2.260	.024	par_7
MOF	<	PROMOTER_BEHAVIOR	.124	.053	2.360	.018	par_1
MOF	<	PERCEPTIONS_NONPROMOTER	.085	.019	4.370	***	par_2
MOF	<	EO	.684	.101	6.763	***	par_6
MOF	<	UBR	.050	.033	1.483	.138	par_8
AME	<	MOF	.387	.023	16.892	***	par_5

Source: AMOS Outcomes

These two versions of promoter's 'entrepreneurial orientation' point towards prevalence of two distinct patterns of aggregate effects of 'entrepreneurial orientation' on respective 'promoter behavior' and 'perceptions of non-promoter aspects'. This two types of structural models and resultant modeling of influences is essential to capture the effect that 'entrepreneurial orientation' can exert across controllable and non-controllable aspects vis a vis sickness.

### 6.3.5 Promoter's age as shaping the effect

H0<sub>4</sub>: The promoter's 'age' influences 'promoter behavior' and 'perceptions of non-promoter aspects' as well as outcomes in significant manner.

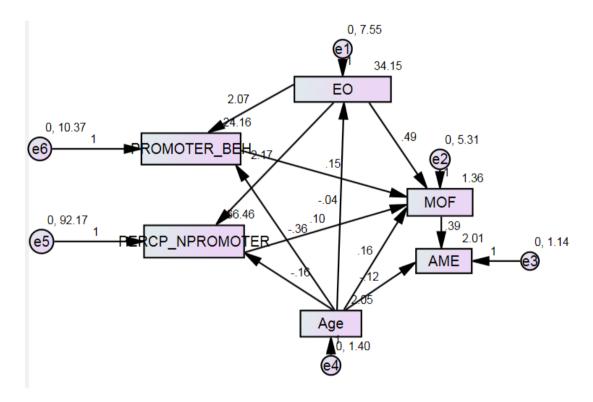


Figure 6.5: Moderation effect of age

Table 6.8: Moderation effect of age

Relationship	Estimate	S.E.	C.R.	P	Label	
EO < A	<b>\GE</b>	044	.187	233	.816	par_11
PROMOTER_BEH < E0	O	2.074	.094	21.984	***	par_1
PERCP_NPROMOTER < E0	O	2.172	.281	7.723	***	par_2
PERCP_NPROMOTER < A	<b>AGE</b>	163	.654	249	.803	par_7
PROMOTER_BEH < A	<b>AGE</b>	364	.219	-1.661	.097	par_8
MOF < E0	CO	.487	.143	3.395	***	par_3

	Relation	ship	Estimate	S.E.	C.R.	P	Label
MOF	<	PERCP_NPROMOTER	.103	.019	5.324	***	par_5
MOF	<	PROMOTER_BEH	.155	.058	2.688	.007	par_6
MOF	<	Age	.156	.158	.988	.323	par_9
AME	<	MOF	.388	.022	17.243	***	par_4
AME	<	Age	123	.073	-1.700	.089	par_10

The model reported a NFI of 0.931, RFI of 0.639, IFI of 0.937, and CFI of 0.935

# 6.3.6 Promoter's training as shaping the effect

H0<sub>5</sub>: The promoter's 'training' influences 'promoter behavior' and 'perceptions of non-promoter aspects' as well as outcomes in significant manner.

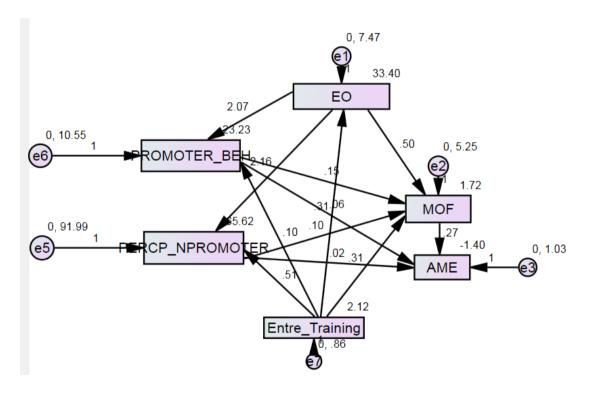


Figure 6.6: Moderation effect of promoter's entrepreneurial training

Table 6.9: Moderation effect of promoter's entrepreneurial training

Re	lation	ship	Estimate	S.E.	C.R.	P	Label
EO	<	ENTRE_TRAINING	.312	.237	1.319	.187	par_11
PROMOTER_BEH	<	EO	2.074	.096	21.675	***	par_1
PERCP_NPROMOTER	<	EO	2.155	.283	7.628	***	par_2
PERCP_NPROMOTER	<	ENTRE_TRAINING	.513	.836	.614	.539	par_9
PROMOTER_BEH	<	ENTRE_TRAINING	.096	.283	.339	.735	par_10

... Hypothesis Testing: Examining Promoter & Non Promoter Influences

	Relation	ship	Estimate	S.E.	C.R.	P	Label
MOF	<	EO	.496	.142	3.490	***	par_3
MOF	<	PERCP_NPROMOTER	.102	.019	5.293	***	par_5
MOF	<	PROMOTER_BEH	.146	.057	2.564	.010	par_6
MOF	<	ENTRE_TRAINING	.315	.200	1.574	.116	par_12
AME	<	MOF	.273	.034	7.998	***	par_4
AME	<	PERCP_NPROMOTER	.018	.009	1.971	.049	par_7
AME	<	PROMOTER_BEH	.064	.018	3.654	***	par_8

The model reported a NFI of 0.951, RFI of 0.659, IFI of 0.956, CFI of 0.954

#### **6.3.7** Moderating effects within causal model

After the examination of direct main effect of 'promoter's behavior' and 'perceptions of non-promoter aspects' the study proceeded to examine the moderating effect of 'lack of business continuity' and 'misguided market acquity' on SME sickness. SMEs have been observed as possessing significant inertia to change. The SME unit's indulgence in business continuity planning, indulgence in acquisition of market intelligence and harnessing learning orientation; could be vital tools to combat sickness. Yet the lack of 'foresight' or 'futuristic planning' or 'non-interest' in seeking business continuity planning make them stagnant and face rampant challenges when the products being produced become irrelevant. The figure below presents the conceptual structural model that hypothesizes that moderating effects of 'business continuity planning' and 'market acquity'. The business continuity planning identifies as an approach that thinks about the possible risks and prospective options for product development under conditions of heterogeneous demand, liquidity crisis, changes in tax system or technology or epidemics like COVID-19. The market acquity represent the unit based approach to seek market intelligence in order to remain competitive and challenge the competitors.

The factors 'LBCP (lack of business continuity planning)' and 'MMA (misguided market acquity)' and their moderating effects on aggregate 'promoter-perceptions-sickness probability relationship' in firm perspective. The four moderating relationships correspond to H0<sub>6</sub>, H0<sub>7</sub>, H0<sub>8</sub> and H0<sub>9</sub> as mentioned in figure above. The hypotheses capture the estimated LBCP (lack of business continuity planning) and

MMA (misguided market acquity) moderator effects within the causal model. The hypotheses are mentioned below.

H0<sub>6</sub>: The 'lack of business continuity' moderates the effect of 'promoter behavior' on 'industrial sickness' probability.

H0<sub>7</sub>: The 'lack of business continuity' moderates the effect of 'perceptions of non-promoter aspects' on 'industrial sickness' probability.

H0<sub>8</sub>: The 'misguided market acquity' moderates the effect of 'promoter behavior' on 'industrial sickness' probability.

H0<sub>9</sub>: The 'misguided market acquity' moderates the effect of 'perceptions of non-promoter aspects' on 'industrial sickness' probability.

The illustration below captures the possible moderations of these two factors.

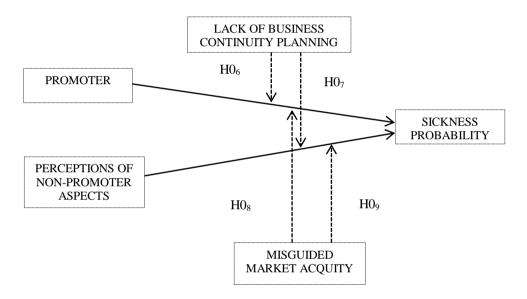


Figure 6.7: Moderation effect modeling Source: Self compiled

The structural paths representing the 'LBCP (lack of business continuity planning)' and 'MMA (misguided market acquity)' moderating effects model, was achieved with maximum likelihood estimation (ML) approach.

Table 6.10: Moderation effect modeling

	Relationship		Estimate	S.E.	C.R.	P	Label	
$H0_6$	SICKNESS	<	LBXPROM	.83	.002	40.878	***	par_1
$H0_8$	SICKNESS	<	MIXPROM	.111	.004	-31.506	***	par_2
	SICKNESS	<	PROMOTER	.375	.072	5.170	***	par_3
	SICKNESS	<	NON_PROMOTER	.54	.044	1.212	.226	par_4
H0 <sub>7</sub>	SICKNESS	<	LBXPERC	.12	.002	-7.563	***	par_5
H0 <sub>9</sub>	SICKNESS	<	MIXPERC	.67	.002	28.273	***	par_6
	SICKNESS	<	LB	.912	.260	-30.438	***	par_7
	SICKNESS	<	MI	.80	.400	10.200	***	par_8

Source: AMOS Outcomes

The overall results points towards the incidence of substantial impact of 'lack of business continuity planning' and 'misguided market acquity' as ultimately leading to state of industrial sickness. The results exhibit that 'LBCP (lack of business continuity planning)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.83, p<0.05) across promoter behavior. Across perceptions of non-promoter aspects, 'LBCP (lack of business continuity planning)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.12, p<0.05). This findings shows that a greater level of LBCP would ultimately lead to industrial sickness probability. The results vindicate the earlier studies and regard 'LBCP (lack of business continuity planning)' as vital antecedent of 'industrial sickness'.

The results exhibit that 'MMA (misguided market acquity)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.111, p<0.05) across promoter behavior. Across perceptions of non-promoter aspects, 'MMA (misguided market acquity)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.67, p<0.05). This findings shows that a greater level of MMA would ultimately lead to industrial sickness probability. The results vindicate the earlier studies and regard 'MMA (misguided market acquity)' as vital antecedent of 'industrial sickness'.

In similar manner it is estimated that the moderating effect of 'harnessed competencies' on SME sickness could be explored vis a vis the liquidity and extent of technology leverage. The moderating effect of environmental dynamism on SME sickness could be explored vis a vis the tax system changes, hostility and heterogeneity in demand.

# 6.3.8 Hypothesis testing on relationship between promoter driven factors and unit relations

It seems essential to monitor and assess the cross factor relations across the "internal deficiency" scale elements. As evident in the cross factor correlation matrix, these are correlating with each other. The same was evident in the AMOS based modeling with regard to the constituent factors "promoter's entrepreneurial orientation", "faulty resource based planning", "inefficient managerial control", "entrepreneur's occupational commitment" and "improper capacity utilization". These entrepreneur based inefficiencies, financial mismanagement, inconsistent planning with regard to

economic resources, resource driven factors and the capacity related factors have been recognized as the internal factors that contribute towards the unit based deficiencies in coping up with the business in turbulent environments (Brown, 2012). The "internally located and determined" deficiencies have been widely believed to play a larger role in determining the pattern of execution of strategy, implementation of business model as well as the overall usage and allocation of the factors of production within the unit concerned (Dean, 2007). The existing studies elaborate on the extensive cross factor linkages which were vindicated in this study as well.

Table 6.11: Structural Hypothesis

				Estimate (β)	S.E.	C.R.	P	Label
H1 There is significant relationship between the "lack of entrepreneurial orientation" and the "failure in unit's market orientation"  Observation: The promoter's "lack of entrepreneurial orientation" was observed to lead to 0.580 times increase in failure of the unit to attain effective market orientation  Supporting Studies: (Ahmad S., 2009), (Bamfo, 2015)	Market Orientation of Firm	<	Lack of Entrepreneurial Orientation	.580	.086	6.711	***	par_8
H2 There is significant relationship between the "lack of management control" and the "failure in unit's market orientation"  Observation: The promoter's "lack of management control" was observed to lead to 0.186 times increase in failure of the unit to attain effective market orientation  Supporting Studies: (Farrokh, 2016), (Jennings, 1995)	Market Orientation of Firm	<	Managerial Control	.186	.069	2.686	.007	par_11

				Estimate (β)	S.E.	C.R.	P	Label
H3 There is significant relationship between the promoter's "lack of occupational commitment" and the "failure in unit's market orientation"	Market Orientation of Firm							
<b>Observation:</b> The promoter's "lack of occupational commitment" was observed to lead to 0.133 times increase in failure of the unit to attain effective market orientation		<	Occupational Commitment	.133	.108	1.232	.218	par_21
Supporting Studies: (Alom, 2016), (Rizzo, 2012)								
H4 There is significant relationship between the "inappropriate resource planning" and the "failure in unit's market orientation"								
<b>Observation:</b> The promoter's "inappropriate resource planning" was observed to lead to 0.319 times increase in failure of the unit to attain effective market orientation	Market Orientation of Firm	<	Resource Planning	.319	.096	-3.342	***	par_22
Supporting Studies: (Touzani, 2015), (Calvo, 2010)								

				Estimate (β)	S.E.	C.R.	P	Label
H5 There is significant relationship between the "inadequate capacity utilization" and the "failure in unit's market orientation"								
<b>Observation:</b> The promoter's "inadequate capacity utilization" was observed to lead to 0.795 times increase in failure of the unit to attain effective market orientation	Market Orientation of Firm	<	Capacity Utilization	.795	.227	7.902	***	par_23
Supporting Studies: (Ahmad S., 2009), (Smith, 2003)								

# 6.3.9 Hypothesis testing on relationship between non-promoter driven factors and unit relations

With regard to monitoring and assessing the cross factor relations across the "external deficiency" scale elements, the AMOS modeling was undertaken across the constituent actors of "insufficient factor endowments", "infrastructural bottlenecks", "changes in economic conditions" and the "pattern of relationships with banks (stakeholders)". As evident in the cross factor correlation matrix, these are correlating with each other. The cross factor assessment will enable the interpretation of the vulnerability of the unit's operations and functioning with regard to external factors. This change has been observed to lead to a transition in the way the unit draws resources from across the economy and converts the resources into meaningful products and services (Dragnic, 2014). The inadequacy with regard to the factors endowments, infrastructural factors, connectivity, supporting materials; has been observed to hamper the general functioning of the unit in question.

					Estimate (β)	S.E.	C.R.	P	Label
Н6	There is significant relationship between the "perceptions of changes in economy" and the "perceptions of policy based uncertainty"								
	<b>Observation:</b> The "perceptions of changes in economy" was observed to lead to 0.832 times increase in the "perceptions of policy based uncertainty"	Policy Uncertainty	<	Changes in Economy	.832	.192	4.341	***	par_1
	<b>Supporting Studies</b> : (Agle, 1999), (Fernando, 2017)								
H7	There is significant relationship between the "policy uncertainty" and the "unit's relationships with bank"								
	<b>Observation:</b> The perceptions of "policy uncertainty" were observed to lead to 0.123 times increase in the imbalance in "unit's relationships with bank"	Unit Bank Relations	<	Policy Uncertainty	.123	.071	1.731	.083	par_2
	Supporting Studies: (Davis, 2008), (Zammel, 2016)								

					Estimate (β)	S.E.	C.R.	P	Label
Н8	There is significant relationship between the "perceived availability of bank credit" and the "unit's relationships with bank"	Unit Bank Relations							
	Observation: The perceptions of "availability of bank credit" were observed to lead to 0.294 times increase in the imbalance in "unit's relationships with bank"  Supporting Studies: (Conner, 1991), (Khelilll, 2015)		<	Bank Credit	.294	.114	2.587	.010	par_3
Н9	There is significant relationship between the "infrastructural hassles" and the "unit's relationships with bank"	Unit Bank Relations							
	<b>Observation:</b> The perceptions of "infrastructural hassles" were observed to lead to 0.950 times increase in the imbalance in "unit's relationships with bank"		<	Infrastructure Hassles	.950	.084	11.275	***	par_4
	<b>Supporting Studies</b> : (Aggarwal, 2011), (Mounika, 2017)								
H1(	There is significant relationship between the "lack of factor endowments" and the "unit's relationships with bank" by the promoter	Unit Bank Relations	<	Factor Endowments	.044	.078	.561	.575	par_5

 $... Hypothesis\ Testing:\ Examining\ Promoter\ \&\ Non\ Promoter\ Influences$ 

	Estimate (β)	S.E.	C.R.	P	Label
Observation: The perceptions of "lack of factor endowments" were observed to lead to 0.044 times increase in the imbalance in "unit's relationships with bank"  Supporting Studies: (Kumar, 2014), (Singh,	N )				
2011)					

# 6.3.10 Hypothesis testing on relationship between unit relations and organizational sickness

With regard to monitoring and assessing the cross factor relations across the "outcomes" scale elements, the AMOS modeling was undertaken across the constituent actors of "unit relations", "ability to meet expenses", "market orientation of firm" and the "failure risk". As evident in the cross factor correlation matrix, these are correlating with each other. The cross factor assessment will enable the interpretation of the vulnerability of the unit's operations and functioning with regard to considered factors.

			Estimate (β)	S.E.	C.R.	P	Label
H11There is significant relationship between the small scale unit's "perceived imbalances in unit's relationships with bankers" and the "failure in market orientation" of the small scale unit							
<b>Observation:</b> The perceptions of "imbalances in unit's relationships with bank" were observed to lead to 0.153 times increase in the "failure in market orientation"	Market Orientation of Firm	Unit Bank Relations	.153	.030	5.063	***	par_6
Supporting Studies: (Kumarasinghe, 2010), (Quader, 2013)							
H12There is significant relationship between the "unit's relationships with banks" and the "organizational failure"							
<b>Observation:</b> The perceptions of "imbalances in unit's relationships with bank" were observed to lead to 0.092 times increase in the "organizational failure"	Organizational Failure <	Unit Bank Relations	.092	.049	1.886	.059	par_17
Supporting Studies: (Saparito, 2009), (Raymond, 2010)							

				Estimate (β)	S.E.	C.R.	P	Label
H13There is significant relationship between the "failure in unit's market orientation" and the "inability to meet expenses" across small scale unit								
<b>Observation:</b> The perceptions of "failure in unit's market orientation" were observed to lead to 0.387 times increase in the "inability to meet expenses"	Ability to meet expenses	<	Market Orientation of Firm	.387	.023	16.486	***	par_7
<b>Supporting Studies</b> : (Khandwalla, 1981), (Samsai, 2013)								
H14There is significant relationship between the "failure in unit's market orientation" and the "organizational failure"								
<b>Observation:</b> The perceptions of "failure in unit's market orientation" were observed to lead to 0.142 times increase in the "organizational failure"	OF	<	MOF	.142	.114	1.243	.214	par_18
<b>Supporting Studies</b> : (Talaja, 2017), (Siddiqui, 2018)								

			Estimate (β)	S.E.	C.R.	P	Label
H15 There is significant relationship between the "inability to meet expenses" and the "organizational failure" by the promoter							
<b>Observation:</b> The perceptions of "inability to meet expenses" were observed to lead to 0.384 times increase in the "organizational failure"	Organizational Failure <	Ability to meet expenses	.384	.233	-1.647	.100	par_12
Supporting Studies: (Yazdipour, 2010), (Vijande, 2012)							

### 6.3.11 Summary of hypothesis and structural relationships

The considered hypothesis ware being summarized here along with the regression estimates signifying the satisfactory range of 0.05 to 0.9

**Table 6.12: Structural relationships** 

Hypothesis				Estimate	S.E.	C.R.	P	Label
	EO	<	О	.261	.144	1.816	.069	par_9
H6	PU	<	CE	.832	.192	4.341	***	par_1
	F	<	INF	.414	.080	5.164	***	par_19
	F	<	PU	.168	.072	2.328	.020	par_20
H7	UBR	<	PU	.123	.071	1.731	.083	par_2
H8	UBR	<	BCR	.294	.114	2.587	.010	par_3
H9	UBR	<	INF	.950	.084	11.275	***	par_4
H10	UBR	<	F	.044	.078	.561	.575	par_5
	M	<	EO	.740	.069	10.719	***	par_10
	M	<	RP	.174	.110	1.582	.114	par_16
H11	MOF	<	UBR	.153	.030	5.063	***	par_6
H1	MOF	<	EO	.580	.086	6.711	***	par_8
H2	MOF	<	M	.186	.069	2.686	.007	par_11
Н3	MOF	<	О	.133	.108	1.232	.218	par_21
H4	MOF	<	RP	.319	.096	-3.342	***	par_22
H5	MOF	<	CU	.795	.227	7.902	***	par_23
H13	AME	<	MOF	.387	.023	16.486	***	par_7
H15	OF	<	AME	.384	.233	-1.647	.100	par_12
H12	OF	<	UBR	.092	.049	1.886	.059	par_17
H14	OF	<	MOF	.142	.114	1.243	.214	par_18
	CU	<	EO	.157	.021	7.562	***	par_13
	RP	<	CU	.216	.194	1.116	.264	par_14
	EO	<	RP	.281	.144	1.955	.051	par_

Source: AMOS Outcomes

### **6.4** Multivariate Regression Modeling

The regression analysis facilitates the identification of possible and probable outcomes and influences based on the quantified estimates of the independent variables. The rationale of regression analysis lies in the statistical estimation of cross factor impact on and across multiple sets of variables. The essence of this research on SSI sector based enterprises in Andhra Pradesh was to examine the statistical impact of "internal inefficiencies", "external dependencies" on the "firm based failure" in general. The regression modeling facilitates the ascertainment of the impact in empirical terms and establishes the composite impact of independent factors on the

dependent factors. The regression modeling is to be worked amongst the factors as identified and classified across exploratory and confirmatory factor analysis across SPSS and AMOS suites. The ascertainment of impact of "internal inefficiency" based factors, "external dependency" based factors on the shaping of "firm based failure"; was achieved with aid of classified and identified factors from across exploratory factor modeling and respective factor structure determination across confirmatory factor analysis. The loading factors along with representative sub scale items were loaded across regression format and linkages were confirmed and established. All loading factors were observed to possess significant impact on the dependent aspect of firm based failure (FP). The subsequent data analysis yielded substantial and satisfactory regression weights and satisfactory impact of independent factors on the dependent factor of firm failure.

### 6.4.1 Internal In-Efficiencies Modeling

The first model examines the impact of entrepreneur driven internal inefficiencies on the likelihood of firm based failure.

Firm Failure (FP2) = 
$$\alpha + \beta_1$$
 O\_3 +  $\beta_2$ M\_4,  $\beta_3$ RP\_4,  $\beta_4$ O\_2,  $\beta_5$ CU\_4,  $\beta_6$ O\_1,  $\beta_7$ RP\_2,  $\beta_8$ EO\_2,  $\beta_9$ CU\_5,  $\beta_{10}$ RP\_3,  $\beta_{11}$ EO\_8,  $\beta_{12}$ M\_1,  $\beta_{13}$ M\_2,  $\beta_{14}$ EO\_1,  $\beta_{15}$ EO\_4,  $\beta_{16}$ EO\_7

	Model Summary										
				Std.	Change Statistics						
		R		Error of	R	F					
		Squar	Adjusted	the	Square	Chang			Sig. F		
Model	R	е	R Square	Estimate	Change	е	df1	df2	Change		
1	.819ª	.676	.650	.07078	.176	1.836	16	138	.002		

a. Predictors: (Constant), O\_3, M\_4, RP\_4, O\_2, CU\_4, O\_1, RP\_2, EO\_2, CU\_5, RP\_3, EO\_8, M\_1, M\_2, EO\_1, EO\_4, EO\_7

R square was 67 per cent and adjusted R square was observed to be 65 per cent which in other words emphasize the rationale of 65 per cent changes in dependent variable(firm failure) being driven by the independent variables.

### **ANOVA**<sup>a</sup>

Мо	odel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.082	16	.005	1.836	.002 <sup>b</sup>
	Residual	.028	138	.007		
	Total	.010	154			

a. Dependent Variable: FP2

b. Predictors: (Constant), O\_3, M\_4, RP\_4, O\_2, CU\_4, O\_1, RP\_2, EO\_2, CU\_5, RP\_3, EO\_8,

M\_1, M\_2, EO\_1, EO\_4, EO\_7

### Coefficientsa

			dardized icients	Standa rdized Coeffic ients			95.0 Confid Interva	lence	Co	orrelatio	ns
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero- order	Partia I	Part
1	(Constant)	539	3.031		178	.859	-6.532	5.453			
	EO_1	1.333	.582	.655	2.290	.004	.182	2.484	.168	.191	.177
	EO_2	163	.609	082	268	.009	-1.368	1.042	.147	023	021
	EO_4	633	.664	300	955	.001	-1.945	.679	.135	081	074
	EO_7	551	.545	363	-1.010	.004	-1.630	.528	.115	086	078
	EO_8	.818	.475	.399	1.724	.007	120	1.757	.214	.145	.133
	RP_2	233	.201	148	-1.157	.009	000	.165	.070	098	089
	RP_3	.265	.225	.179	1.179	.001	009	.709	.088	.100	.091
	RP_4	.055	.225	.032	.245	.007	000	.500	.089	.021	.019
	M_1	375	.265	241	-1.415	.009	008	.149	036	120	109
	M_2	.272	.273	.189	.996	.001	008	.813	.104	.084	.077
	M_4	426	.442	207	962	.008	000	.449	014	082	074
	CU_4	333	.375	128	889	.006	000	.408	084	075	069
	CU_5	.489	.289	.213	1.693	.093	000	1.060	.047	.143	.131
	0_1	.134	.224	.058	.599	.050	008	.576	.087	.051	.046
	0_2	.201	.204	.091	.987	.005	002	.605	.118	.084	.076
	O_3	054	.227	023	238	.012	002	.394	.062	020	018

a. Dependent Variable: FP2

The results indicate that sub scale items O\_3, M\_4, RP\_4, O\_2, CU\_4, O\_1, RP\_2, EO\_2, CU\_5, RP\_3, EO\_8, M\_1, M\_2, EO\_1, EO\_4, EO\_7 possess a significant impact on shaping firm based failure

### **6.4.2** External Influence Modeling

The second model examines the impact of environment driven external inefficiencies and dependencies on the likelihood of firm based failure.

Firm Failure (FP2)= $\alpha+\beta_1$  INF\_4 +  $\beta_2$ CE5 +  $\beta_3$ PU\_5+  $\beta_4$  F\_6 +  $\beta_5$  BCR\_5+  $\beta_6$  UBR3 +  $\beta_7$  BCR\_1 +  $\beta_8$  PU\_6 +  $\beta_9$  F\_5+  $\beta_{10}$  BCR\_3 +  $\beta_{11}$  CE6 +  $\beta_{12}$  F\_3 +  $\beta_{13}$  INF\_1 +  $\beta_{14}$  UBR7 +  $\beta_{15}$  CE4 +  $\beta_{16}$  INF\_2 +  $\beta_{17}$  BCR\_2 +  $\beta_{18}$  F\_7 +  $\beta_{19}$  UBR4 +  $\beta_{18}$  F\_1 +  $\beta_{18}$  PU\_1+  $\beta_{18}$  F\_4+ $\beta_{18}$  UBR6+  $\beta_{18}$  INF\_3+ $\beta_{18}$  UBR5+ $\beta_{18}$  UBR8+  $\beta_{18}$  PU\_3+ $\beta_{18}$  PU\_4

### **Model Summary**

				Std.	Change Statistics						
			Adjusted	Error of	R						
		R	R	the	Square				Sig. F		
Model	R	Square	Square	Estimate	Change	F Change	df1	df2	Change		
1	.767ª	.519	.505	1.09098	.219	1.258	28	126	.006		

a. Predictors: (Constant), INF\_4, CE5, PU\_5, F\_6, BCR\_5, UBR3, BCR\_1, PU\_6, F\_5, BCR\_3, CE6, F\_3, INF\_1, UBR7, CE4, INF\_2, BCR\_2, F\_7, UBR4, F\_1, PU\_1, F\_4, UBR6, INF\_3, UBR5, UBR8, PU\_3, PU\_4

R square was 76 per cent and adjusted R square was observed to be 51 per cent which in other words emphasize the rationale of 50 per cent changes in dependent variable(firm failure) being driven by the independent variables.

**ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.939	28	1.498	1.258	.006 <sup>b</sup>
	Residual	.971	126	1.190		
	Total	.910	154			

a. Dependent Variable: FP2

b. Predictors: (Constant), INF\_4, CE5, PU\_5, F\_6, BCR\_5, UBR3, BCR\_1, PU\_6, F\_5, BCR\_3, CE6, F\_3, INF\_1, UBR7, CE4, INF\_2, BCR\_2, F\_7, UBR4, F\_1, PU\_1, F\_4, UBR6, INF\_3, UBR5, UBR8, PU\_3, PU\_4

		Unstandardized Coefficients		Standa rdized Coeffic ients			95.0 Confid Interva	lence
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Consta nt)	2.460	1.591		1.547	.124	688	5.609
	CE4	153	.430	073	056	.002	-1.005	.698
	CE5	.194	.323	.113	.002	.008	445	.834
	CE6	.072	.376	.037	.001	.009	672	.816
	UBR3	198	.282	173	003	.003	756	.359
	UBR4	.608	.344	.550	1.765	.080	074	1.290

UBR5	432	.475	367	909	.005	-1.373	.509
UBR6	.049	.422	.043	.115	.008	786	.883
UBR7	.152	.428	.134	.355	.003	695	.999
UBR8	.013	.491	.012	.027	.008	959	.986
F_1	417	.432	278	964	.007	-1.272	.439
F_3	.083	.416	.055	.198	.007	741	.906
F_4	.003	.431	.016	.049	.000	832	.875
F_4 F_5	.509	.346	.314	1.469	.004	032 177	1.194
F_6	487	.319	332	-1.528	.009	-1.117	.144
F_7	.262	.351	.172	.746	.007	432	.955
BCR_1	.122	.231	.085	.531	.007	334	.579
BCR_2	018	.376	013	048	.002	763	.726
BCR_3	410	.335	256	-1.223	.004	-1.073	.253
BCR_5	.348	.355	.207	.980	.009	355	1.051
PU_1	.692	.407	.502	1.700	.002	113	1.498
PU_3	028	.580	023	049	.001	-1.177	1.120
PU_4	537	.574	447	936	.001	-1.674	.599
PU_5	048	.350	040	136	.002	740	.644
PU_6	177	.531	130	333	.000	-1.228	.875
INF_1	.186	.237	.166	.786	.004	283	.655
INF_2	.247	.288	.222	.859	.002	323	.817
INF_3	.241	.415	.216	.579	.003	581	1.062
INF_4	606	.407	532	-1.490	.009	-1.411	.199

a. Dependent Variable: FP2

### **6.4.3** Middle Portion Influence Modeling

The third model explores the impact of ability to meet expenses and marketability of firm as shaping the likelihood of firm based failure.

Firm Failure (FP2)= $\alpha+\beta_1$  AME 3 +  $\beta_2$  MOF1+  $\beta_3$  MOF5+  $\beta_4$  AME1+  $\beta_5$  MOF2+  $\beta_6$  MOF3+  $\beta_7$  MOF7+ $\beta_8$  AME 2+  $\beta_9$  MOF6+  $\beta_{10}$  MOF4

Model	<b>Summary</b>
MOGCI	Outilitial y

			Adjuste	Std. Error	Change Statistics				
		R	d R	of the	R Square				Sig. F
Model	R	Square	Square	Estimate	Change	F Change	df1	df2	Change
1	.796ª	.556	.508	1.06026	.156	2.671	10	144	.005

a. Predictors: (Constant), AME 3, MOF1, MOF5, AME 1, MOF2, MOF3, MOF7, AME2, MOF6, MOF4

R square was 79 per cent and adjusted R square was observed to be 55 per cent which in other words emphasize the rationale of 50 per cent changes in dependent variable(firm failure) being driven by the independent variables.

### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.031	10	3.003	2.671	.005 <sup>b</sup>
	Residual	.878	144	1.124		
	Total	.910	154			

a. Dependent Variable: FP2

#### Coefficientsa

		Unstand Coeffic		Standar dized Coefficie nts			95.0% Co		
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	
1	(Constant)	3.673	1.494		2.458	.015	.719	6.626	
	MOF1	.268	.293	.110	.915	.002	311	.847	
	MOF2	.593	.468	.330	1.266	.008	333	1.518	
	MOF3	762	.410	403	-1.857	.005	-1.573	.049	
	MOF4	720	.620	381	-1.161	.008	-1.945	.506	
	MOF5	1.502	.481	.925	3.120	.002	.550	2.454	
	MOF6	.169	.472	.093	.359	.000	763	1.102	
	MOF7	911	.416	569	-2.192	.030	-1.733	090	
	AME 1	.295	.356	.172	.830	.008	408	.999	
	AME 2	241	.471	132	512	.009	-1.173	.690	
	AME 3	126	.215	080	583	.060	551	.300	

a. Dependent Variable: FP2

### 6.4.4 Demographic Impact Modeling

The fourth model examines the impact of demographic differences on the likelihood of firm based failure.

Firm Failure (FP2)= $\alpha+\beta_1$  Age\_of\_Unit +  $\beta_2$  Unit\_Location +  $\beta_3$  E\_Motivations +  $\beta_4$  Activity\_Type +  $\beta_5$  Age +  $\beta_6$  Symbolic\_Management +  $\beta_7$  education\_entrep + $\beta_8$  Owner\_Experience +  $\beta_9$  Entre\_Training +  $\beta_{10}$  LEARNING\_Orientation +  $\beta_{11}$  Number\_of\_Emp

b. Predictors: (Constant), AME 3, MOF1, MOF5, AME1, MOF2, MOF3, MOF7, AME 2, MOF6, MOF4

**Model Summary** 

			Adjusted	Std. Error	Change Statistics				
		R	R	of the	R Square	F			Sig. F
Model	R	Square	Square	Estimate	Change	Change	df1	df2	Change
1	.609ª	.496	.426	1.10167	.096	1.375	11	143	.001

a. Predictors: (Constant), Age\_of\_Unit, Unit\_Location, E\_Motivations, Activity\_Type, Age,

Symbolic\_Management, education\_entrep, Owner\_Experience, Entre\_Training,

LEARNING\_Orientation, Number\_of\_Empo

R square was 60 per cent and adjusted R square was observed to be 49 per cent which in other words emphasize the rationale of 42 per cent changes in dependent variable(firm failure) being driven by the independent variables.

**ANOVA**<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.353	11	1.668	1.375	.001 <sup>b</sup>
Residual	.557	143	1.214		
Total	.910	154			

a. Dependent Variable: FP2

b. Predictors: (Constant), Age\_of\_Unit, Unit\_Location, E\_Motivations, Activity\_Type, Age, Symbolic\_Management, education\_entrep,

Owner\_Experience, Entre\_Training, LEARNING\_Orientation, Number\_of\_Empo

#### Coefficientsa

	Coefficients									
				Standard ized Coefficie nts				onfidence al for B		
Model		В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound		
1	(Constant)	3.928	.820		4.791	.000	2.308	5.549		
	Unit_Location	.061	.182	.027	.334	.009	299	.421		
	education_entrep	207	.139	125	-1.486	.009	482	.068		
	Activity_Type	084	.097	072	866	.008	275	.107		
	Number_of_Empo	.095	.139	.059	.687	.003	179	.370		
	LEARNING_Orientation	022	.060	031	362	.008	140	.097		
	Age	.068	.076	.073	.894	.003	083	.219		
	Entre_Training	.239	.100	.200	2.378	.019	.040	.438		
	Owner_Experience	077	.112	057	688	.003	299	.145		
	E_Motivations	.012	.083	.012	.150	.001	152	.177		
	Symbolic_Management	.077	.090	.071	.858	.002	101	.256		
	Age_of_Unit	156	.111	118	-1.404	.003	375	.064		

a. Dependent Variable: FP2

## 6.5 Linear Regression Modeling in SPSS

In addition to aforesaid multivariate regression modeling, linear regression modeling was undertaken in SPSS software version release 24.0, to ascertain the cross factor influences. The existing literature points towards correlation assessment and linear regression modeling as a complimentary data analysis practice. The independent variables are assessed vis a vis the dependent variables (predictor variables) and resultant models are evaluated for fit. The SPSS platform was leveraged for computing the values of variables. The linear regression modeling exhibited satisfactory and substantial linear correlation amongst the concerned variables.

### 6.5.1 Promoter driven linear modeling

The independent variables (O, RP, CU, M, EO) were assessed vis a vis the dependent variables (MOF) across linear regression modeling.

Model Summary<sup>b</sup>

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.843ª	.711	.702	2.11205

a. Predictors: (Constant), O, RP, CU, M, EO

b. Dependent Variable: MOF

**ANOVA**<sup>a</sup>

Mode	1	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1638.029	5	327.606	73.442	.000 <sup>b</sup>
	Residual	664.655	149	4.461		
	Total	2302.684	154			

a. Dependent Variable: MOF

b. Predictors: (Constant), O, RP, CU, M, EO

$\alpha$	660		4 9
( n	effia	CIET	1TCª

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	-7.827	3.424		-2.286	.024
	EO	.592	.087	.422	6.836	.000
	RP	.070	.103	.031	.675	.001
	M	.207	.120	.101	1.719	.088
	CU	2.156	.247	.463	8.715	.000
	0	.157	.150	.047	1.052	.095

a. Dependent Variable: MOF

**Market Orientation of Firm (MOF)** = Constant +.422 (Entrepreneurial Orientation) +.031 (Resource Planning) + .101 (Managerial Control) +.463(Capacity Utilization) + .047(Occupational commitment)

The linear regression modeling categorically predicts that dependent variables of MOF (market orientation of firm) is indeed predicted by independent variables of O, RP, CU, M, and EO.

With use of SPSS, the factor values were computed and respective modeling was worked out with linear regression aspect. The results as evident vindicate the presence of factors on the market orientation of firm. R2 for the aforesaid model was observed to be 84 per cent and the respective adjusted R2 was incident as 71 per cent reflecting the exploratory power for independent variables to account for 71 per cent variance in the dependent factor of market orientation of firm.

### 6.5.2 Non Promoter driven linear modeling

The independent variables (INF, CE, PU, F, BCR) are assessed vis a vis the dependent variables (UBR) across linear regression modeling.

**Model Summary** 

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.774ª	.599	.585	3.64346

a. Predictors: (Constant), INF, CE, PU, F, BCR

**ANOVA**<sup>a</sup>

I	Model	Sum of Squares	df	Mean Square	F	Sig.
	1 Regression	2952.898	5	590.580	44.489	.000 <sup>b</sup>
	Residual	1977.941	149	13.275		
	Total	4930.839	154			

a. Dependent Variable: UBR

Coefficients<sup>a</sup>

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	4.913	4.413		1.113	.067
	CE	.456	.188	.134	2.418	.017
	F	.070	.080	.052	.876	.083
	BCR	.298	.144	.136	2.076	.040
	PU	.181	.082	.134	2.199	.029
	INF	.927	.094	.619	9.859	.000

a. Dependent Variable: UBR

UBR= Constant+134 (CE) + .052 (F) + .136 (BCR) + .134(PU) + .619(INF)

Unit bank Relations (UBR) = Constant +.134 (Changes in Economy) + .052 (Factor of production) + .136 (Bank credit) +.134(Policy uncertainty) + .619(Infrastructure hassles)

The linear regression modeling categorically predicts that dependent variables of UBR (state of Unit Bank Relations) is indeed predicted by independent variables of INF, CE, PU, F, and BCR.

With use of SPSS, the factor values were computed and respective modeling was worked out with regression aspect. The results as evident vindicate the presence of

b. Predictors: (Constant), INF, CE, PU, F, BCR

factors on the unit bank relations. R2 for the aforesaid model was observed to be 77 per cent and the respective adjusted R2 was incident as 58 per cent reflecting the exploratory power for independent variables to account for 58 per cent variance in the dependent factor of unit bank relations.

### 6.5.3 Moderating effect of EO

The independent variables (EP, ENP) are assessed vis a vis the dependent variables (AME) across linear regression modeling. The moderating effect of promoter's entrepreneurial orientation (EO) was observed across promoter's behavior and promoter's perceptions of non-promoter factors as mentioned here.

**Model Summary** 

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.715ª	.511	.504	1.30316

a. Predictors: (Constant), ENP, EP

**ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	267.782	2	133.891	78.842	.000 <sup>b</sup>
	Residual	256.432	151	1.698		
	Total	524.214	153			

a. Dependent Variable: AME

b. Predictors: (Constant), ENP, EP

### Coefficients

				Ctondordized		
				Standardized		
		Unstandardized Coefficients		Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	9.277	.882		10.523	.000
	EP	.2	.001	.354	3.175	.002
	ENP	.1	.000	.387	3.471	.001

a. Dependent Variable: AME

AME = Constant + .2 (EP) + .1 (ENP)

**Ability to Manage Expenses (AME)** = Constant+.2 (EP) + .1 (ENP)

Where EP=EO\*Promoter Behavior, ENP=EO\*Perceptions of Non Promoter Aspects

The linear regression modeling categorically predicts that dependent variables of AME (state of ability to manage expenses) is indeed predicted by independent variables of EP, ENP. With use of SPSS, the factor values were computed and respective modeling was worked out with regression aspect. The results as evident vindicate the presence of factors on the SME unit based ability to manage expenses. R2 for the aforesaid model was observed to be 71 per cent and the respective adjusted R2 was incident as 51 per cent reflecting the exploratory power for independent variables to account for 51 per cent variance in the dependent factor of SME unit based ability to manage expenses.

## 6.6 Sickness Probability of determinants

The logistic regression modeling of effect explored the probability of unit based sickness as occurring on account of the assumed factors (promoter driven and non-promoter based).

**Model Summary** 

		Cox & Snell R	Nagelkerke R
Step	-2 Log likelihood	Square	Square
1	126.856ª	.043	.074

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Variables in the Equation

								95% C.I.fd	or EXP(B)
		В	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1 <sup>a</sup>	CE	.121	.142	.727	1	.394	1.129	.855	1.490
	F	.073	.057	1.623	1	.203	1.076	.961	1.204
	BCR	098	.116	.709	1	.400	.907	.722	1.139
	PU	018	.101	.031	1	.860	.982	.805	1.198
	INF	.005	.084	.003	1	.954	1.005	.852	1.185
	EO	.149	.114	1.712	1	.191	1.161	.928	1.452
	RP	060	.154	.154	1	.695	.941	.696	1.273
	M	004	.121	.001	1	.974	.996	.786	1.262
	CU	222	.374	.353	1	.553	.801	.385	1.666
	0	267	.194	1.893	1	.169	.766	.523	1.120
	Constant	3.062	5.315	.332	1	.565	21.371		

a. Variable(s) entered on step 1: CE, F, BCR, PU, INF, EO, RP, M, CU, O.

**Sickness probability**= 0.565 + 0.394\*CE + 0.203\*F + 0.400\*BCR + 0.860\*PU + 0.954\*INF + 0.191\*EO + 0.695\*RP + 0.974\*M + 0.553\*CU + 0.169\*O

This clearly establishes that SME unit bound industrial sickness or distress has 0.394 times role of perceptions of change in economy, 0.203 times role of perceptions of access to factors of production, 0.400 times role of perceptions of bank credit availability, 0.860 times role of perceptions of policy uncertainty, 0.954 times role of perceptions of infrastructure driven hassles, 0.191 times role of promoter's entrepreneurial orientation in business, 0.695 times role of perceptions of managerial control, 0.553 times role of perceptions of capacity utilization, 0.169 times role of perceptions of occupation commitment. In simpler terms, the probability of sickness being evident across industrial units in SME sector in Andhra Pradesh is reliant on factors as assumed in the study.

## 6.7 Summary of equations of relationships

The hypothesis vindication proved the existence of relationships amongst the factors. The presence of relationships vindicates the conceptual model which exemplifies the cross construct linkages. The regression modeling further established the prevalence of industrial sickness across SSI units in Andhra Pradesh region. The core equations as conceptualized as part of research are summarized here:

Market Orientation of Firm (MOF) = Constant +.422 (Entrepreneurial Orientation) +.031 (Resource Planning) + .101 (Managerial Control) +.463(Capacity Utilization) + .047(Occupational commitment)

Unit bank Relations (UBR) = Constant +.134 (Changes in Economy) + .052 (Factor of production) + .136 (Bank credit) +.134(Policy uncertainty) + .619(Infrastructure hassles)

Firm Failure (FP2) = $\alpha+\beta_1$  O\_3 +  $\beta_2$ M\_4,  $\beta_3$ RP\_4,  $\beta_4$ O\_2,  $\beta_5$ CU\_4,  $\beta_6$ O\_1,  $\beta_7$ RP\_2,  $\beta_8$ EO\_2,  $\beta_9$ CU\_5,  $\beta_{10}$ RP\_3,  $\beta_{11}$ EO\_8,  $\beta_{12}$ M\_1,  $\beta_{13}$ M\_2,  $\beta_{14}$ EO\_1,  $\beta_{15}$ EO\_4,  $\beta_{16}$ EO\_7

Firm Failure (FP2) = α+β<sub>1</sub> INF\_4 + β<sub>2</sub>CE5 + β<sub>3</sub>PU\_5+ β4 F\_6 + β<sub>5</sub> BCR\_5+ β<sub>6</sub> UBR3 + β<sub>7</sub> BCR\_1 +β<sub>8</sub> PU\_6 + β9 F\_5+ β<sub>10</sub> BCR\_3 + β<sub>11</sub> CE6 + β<sub>12</sub> F\_3 + β<sub>13</sub> INF\_1 + β14 UBR7 + β15 CE4 + β<sub>16</sub> INF\_2 + β<sub>17</sub> BCR\_2 + β<sub>18</sub> F\_7 + β<sub>19</sub> UBR4 + β<sub>18</sub> F\_1 + β<sub>18</sub> PU\_1+ β<sub>18</sub> F\_4+β<sub>18</sub> UBR6+ β<sub>18</sub> INF\_3+β<sub>18</sub> UBR5+β<sub>18</sub> UBR8+ β<sub>18</sub> PU\_4

Firm Failure(FP2)= $\alpha+\beta_1$  AME  $3+\beta_2$  MOF1+  $\beta_3$  MOF5+  $\beta_4$  AME1+  $\beta_5$  MOF2+  $\beta_6$  MOF3+  $\beta_7$  MOF7+ $\beta_8$  AME 2+  $\beta_9$  MOF6+  $\beta_{10}$  MOF4

**Ability to Manage Expenses (AME)** = Constant+0.2 (EP) + 0.1 (ENP) where EP=EO\*Promoter Behavior, ENP=EO\*Perceptions of Non Promoter Aspects

Sickness probability= 0.565 + 0.394\*CE + 0.203\*F + 0.400\*BCR + 0.860\*PU + 0.954\*INF + 0.191\*EO + 0.695\*RP + 0.974\*M + 0.553\*CU + 0.169\*O

### 6.8 Findings of chapter

The chapter modeled the effects of independent variables on dependent variables. The chapter incorporated the structural equation modeling, regression analysis, linear and multivariate modeling techniques as well as logistic regression modeling techniques to assess the 'sickness' probability. The SME based 'sickness' was observed as being a viable outcome of 'promoter' and 'non-promoter' driven perceptions in case of state. The regression modeling pointed towards statistically significant impact of independent factors on dependent factor.

## 7 Conclusions and Policy suggestions

## 7.1 Summarizing the research

The proximal and distal causes of industrial sickness as addressed in this academic research were derived from across the evident literature and theoretical frameworks on the subject matter. The probable causes had the reported history of evidence across studies (Dragnic, 2014) on SSE sector in CIS states and across South African context. The reported 'industrial failure' or 'industrial sickness' is being observed as manmade rather than natural in nature and scope. The observed industrial sickness and propensity to default on payments; are ingrained in the aspects, that govern and manage the working of such enterprises. Thus the core research basis is the assessment of guiding principles or the root causes that shape the probable industrial sickness in state perspective. The research earnestly believed that remedial action can only be possible when the appropriate factors are being identified in a most effective manner. The literature called for internal organizational inefficiencies, manager or promoter borne aspects and environment driven uncertainties as shaping and influencing the firm behavior and ability to compete. Of these common aspects across research studies, there are certain common undercurrents that equally influenced the firm's behavior and ability to stand and face the challenges and survive the onslaught of economic and business environment.

### 7.2 Vindication of Research Objectives

The sections explains the how objectives vindicated...

# 7.2.1 Objective One: To examine the status of MSME in India and in Andhra Pradesh state

In the process of industrial development, a number of small units have fallen sick in India. Further, the magnitude of industrial sickness in the country has become alarming in recent years. Industrial sickness has become a growing endemic disease, particularly in the small-scale sector. Industrial sickness ruins the objectives of the MSME. There are many reasons for sickness. Main causes are internal causes and

external causes. Internal causes are a selection of defective plant and machinery, faults at planning and construction stage of the project, entrepreneurial incompetence, financial problems, labor problems, management problems like production management, marketing management, personnel management etc, External causes are changes in government policies and political decisions, demand and credit constraints, power cuts, erratic supply of inputs etc. Due to these internal and external causes industrial sectors having different adverse effects. Some of them are wastage of scarce resources, losing employment opportunities, labor unrest, great impact on prospective investors and entrepreneurs, loss of revenue to the government and finally it will show an adverse impact on related units. Hence the need arises for studying the dimensions of industrial sickness, its root causes to avert it. In this context, the study has undertaken on determining the factors causing industrial sickness in three Districts of Andhra Pradesh. Micro, Small and Medium Enterprise (MSME) sickness is pervasive in India. Of the 3.35 million (2014) registered MSMEs in India, approximately 13.6% of the units were sick. However, estimates suggest that registered units' account for less than 7% of the total MSMEs in the country. Even if a similar percentage of incidence of sickness e is applied on the unregistered MSMEs, the total number of sick units would amount to 6.6 million (2014). The problem has been even more severe in Andhra Pradesh where Reserve Bank of India (RBI) reports 24% of the 106,000 units to be sick in 2014. The RBI findings are further validated by proxy evidence from the National Small Industries Corporation (NSIC)-CRISIL study (2014) in which 55 of the 276 MSME units (20%) credit rated across Andhra Pradesh were found to be sick. Sickness in India is a dangerous problem for the economy. Sickness covers all types of units like small scale, medium and large scale sector. It is a matter of crores of rupees related to the nations directly or indirectly. It is a phenomenon that shows an adverse effect on employment, availability of goods and services and the prices of those things rise up. According to the All India Census of SSI units 2001-2002 (prior to the MSME Act 2006), industrial sickness in Andhra Pradesh was as high as 38%. Since then, the definition of MSME and sickness has gone through iterations. The analysis presented adheres to the definitions as per the MSME Act of 2006. In 2014, there were a total of 106,552 MSME in the thirteen districts of Andhra Pradesh<sup>9</sup>. The RBI statistics published in March 2014 identified

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<sup>&</sup>lt;sup>9</sup> DIC - AP Industries

41,845<sup>10</sup> sick MSME units in undivided Andhra Pradesh. In absence of any new publications since March 2014, a proxy estimation is made by splitting the sick units in the same proportion between Telangana and Andhra Pradesh as the number of MSMEs. Of the total 169,602 MSMEs in Andhra Pradesh combined (2014), 62.8% were located in Andhra Pradesh while the rest were present in Telangana<sup>11</sup>. Therefore, using the same ratio, the number of sick units in Andhra Pradesh can be estimated at 26,289, which accounts for 6% of the sick units in the country.

Total Registered Units in	Andhra Pradesh* Registered Units 2014 1,06,552 (62.83%)	Total Sick Units in Undivided Andhra Pradesh	Sick Units in Andhra Pradesh* 26,289(62.83%)
Undivided Andhra Pradesh 1,69,602	Telangana Registered Units 2014 63,050 (37.17%)	2014 41,845	Sick Units in Telangana 15,556 (37.17%)

\*13 Districts of Andhra Pradesh

In 2014, more than 24% of registered units in Andhra Pradesh were classified sick, which was the highest amongst Maharashtra, Gujarat, Kerala, Karnataka and Tamil Nadu. Considering the four southern states, in percentage terms, the incidence of sickness in Andhra Pradesh is 2.5, 2 and 4 times more than Kerala, Karnataka and Tamil Nadu respectively. In order to assess the factors behind MSME sickness, the study has undertaken in three selected Districts of the Andhra Pradesh.

As per the CAGR in percentage from table as illustrated, exports only showing at double-digit growth per annual, still there is need for expansion of these variable performances because of this SME sector is intended to accommodate more number of employment. The employment variable of SME stands at 3.8 % growth per annual, which is more concerned factor because the employment is growing at weak percentage where it should be more than other variable performance. Interestingly, the exports of SME's are growing rapidly at 10.65 % per annual it tells that SME's commodities are being demanded more from outside countries. Contrastingly, the amount outstanding at banks is growing at 9.85 % of CAGR which very alarming rate. The CAGR in percentage of Investment variable is reflecting that 6.47 which is very low. India as a developing nation should promote the SME's sector and

<sup>&</sup>lt;sup>10</sup> Reserve Bank of India: Lok Sabha Question on MSME Sickness 8th December, 2014. Retrievable from (http://pib.nic.in/newsite/PrintRelease.aspx?relid=112836)

<sup>&</sup>lt;sup>11</sup> Telangana MSME units in 2014 – 63,050 (www.industries.telangana.gov.in)

encourage investment growth at least 30% per annual. The sickness unites growing at 3.5 %, which is mainly due to lack of attention towards improvement regarding the amenities for the sectorial development by the government.

Table 7.1: CAGR in % for growth components variables

<b>Growth and Perfor</b>	Growth and Performance analysis of MSME, 2008-09 to 2018-2019										
Variables	CAGR	CAGR in %	Mean	St. Dev							
Production in billion	0.07	6.79	1356789.35	305758.69							
MSME Units in millions	0.05	5.15	509.87	94.69							
Employment in millions	0.04	3.80	1096.17	146.61							
Exports in millions	0.11	10.65	345382.82	134797.52							
Investment in crore	0.06	6.47	964113.09	204448.28							
Sickness in numbers	0.035884	3.59	213064.3	108907							
Amount Outstanding In billions	0.098455	9.85	63.24231	62.41976							

Source: self-devised

The data on Investment analysis covered in-between 2008-09 to 2018-2019. In addition, data on Sickness and Amount Outstanding are available from 1990 to 2015,

### 7.2.2 Objective Two: Identification of contributing factors

The research identified and classified the factors that contribute (directly and indirectly) towards the industrial sickness in Small scale enterprises in Andhra Pradesh. The first sets of factors are more internally determined and reflect the promoter determined internal deficiencies evident in form of "lack of entrepreneurial orientation (EO)", "faulty resource planning (R)", "inadequate capacity utilization (CU)", "inappropriate managerial control (M)", "lack of occupational expertise (O)". The second prominent set of factors elaborate on the external dependencies namely the "insufficient factor endowments (F)", "infrastructural hassles (INF)", "changes in economic conditions (CE)", "access to bank credit (BCR)" and the "policy uncertainty and governmental support (PU)". This was accomplished by the review of existing literature and the dominant studies on the subject.

Factor Categories	Factor Description
Internal Deficiencies	Promoter driven lack of entrepreneurial orientation (EO), faulty resource planning (R), inadequate capacity utilization (CU), inappropriate managerial control (M), lack of occupational expertise (O)
External Dependencies	Insufficient factor endowments (F), infrastructural hassles (INF), changes in economic conditions (CE), inadequate access to bank credit (BCR) and the policy uncertainty and governmental support (PU).

Figure 7.1: Internal and External factors

With regard to factors exhibiting maximum weightage across internal inefficiencies as leading to firm based sickness, "Lack of entrepreneurial orientation (EO)" exhibited

43 per cent weightage as contributing to sickness perceptions. Amongst the other internally determined factors contributing to firm sickness, "Faulty Resource Planning" exhibited next 11 percent weightage.

Table 7.2: Summarizing the variance: Promoter aspects

#### Total Variance Explaineda

Components of Promoter Driven	Initia	l Eigenva	alues	Extraction	Rotation Sums of Squared Loadings		
Scale	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1= Lack of Promoter's Entrepreneurial Orientation/Skills	6.945	43.404	43.404	6.945	43.404	43.404	6.131
2=Faulty Resource Planning	1.916	11.973	55.377	1.916	11.973	55.377	2.196
3=Lack of Occupational Commitment	1.829	11.429	66.805	1.829	11.429	66.805	2.077
4=Inappropriate Management Control	1.218	7.616	74.421	1.218	7.616	74.421	4.570
5=Inadequate Capacity Utilization	1.101	6.881	81.302	1.101	6.881	81.302	3.208

Responses were obtained with aid of a likert based measurement instrument with 1=Strongly Disagree and 7= Strongly Agree

Extraction Method: Principal Component Analysis.

With regard to factors exhibiting maximum weightage across external dependencies as leading to firm based sickness, factor endowments exhibited substantial 41 per cent weightage. This points to extensive dependence of firm based sickness on lack of access to factors or input resources.

Table 7.3: Summarizing the variance: Non-Promoter aspects

Total Variance Explained<sup>a</sup>

~	Initial Eigenvalues			Extractio	Rotation Sums of Squared Loadings <sup>b</sup>		
Component		% of	Cumulativ		% of	Cumulati	
( Non-Promoter Based)	Total	Variance	e %	Total	Variance	ve %	Total
1= Factor Endowments	9.136	41.529	41.529	9.136	41.529	41.529	6.764
2=Policy Uncertainty	3.843	17.467	58.996	3.843	17.467	58.996	5.936
3=Infrastructure Hassles	2.911	13.233	72.229	2.911	13.233	72.229	5.372
4=Changes in Economy	2.045	9.297	81.525	2.045	9.297	81.525	3.402
5=Credit Institutional Support	1.620	7.363	88.889	1.620	7.363	88.889	4.951

Extraction Method: Principal Component Analysis.

a. Only cases

b. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

## 7.2.3 Objective Three: Quantification of the cross factorial impact

The research achieved the modeling of the causal impact across the constituent factors that were supposed to aid or contribute towards the state of sickness or revival across the small scale enterprises or small businesses in East Godavari, West Godavari and Krishna districts of the state of Andhra Pradesh. The linkages hence were observed to

support a host of hypothesis and assumptions that underline the prospects for recovery and revival of the aforesaid promoter run small businesses in state perspective.

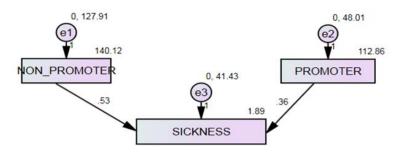


Figure 7.2: Composite effect modeling: Promoter & Non-Promoter aspects as influencing industrial sickness

Source: AMOS Outcomes

The structural diagram above illustrates the impact of non-promoter factors and promoter driven factors on 'industrial sickness'. This upholds the assumption that industrial unit sickness is not uni-dimensional rather multi-dimensional and is contextual in nature.

H0<sub>1</sub>: Promoter behavior is strongly related with sickness

H<sub>02</sub>: Perceptions of non-promoter aspects is strongly related with sickness

Hypothesis	Relationships			Estimate	S.E.	C.R.	P
$H0_1$	SICKNESS	<	PROMOTER	.363	.075	4.838	***
H0 <sub>2</sub>	SICKNESS	<	NON PROMOTER	.525	.046	11.420	***

The two hypothesis of this study argue that promoter and promoter's perceptions of non-promoter factors would be positively related to industrial sickness probability. Another hypothesis mapped the cross factorial effect of EO on promoter behavior and perception formation. The hypothesis argue that promoter (entrepreneur) as an agency and his 'entrepreneurial orientation' significantly impacts behavior and sickness based outcomes. The test for this hypothesis while controlling for 'entrepreneurial orientation' revealed two possible structural arrangements. The structural arrangements exhibited that 'EO' at aggregate level corresponded to impacts on 'promoter behavior' and 'perceptions of non-promoter aspects' as well as outcomes in significant manner.

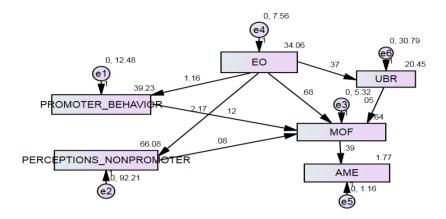


Figure 7.3: Modeling the impact of Entrepreneurial Orientation

Source: AMOS Outcomes

Where Promoter\_Behavior = CU (Capacity Utilization)+ M(Managerial control),+RP(Resource Planning+ O(Occupational Commitment) Perceptions\_NonPromoter= F(Factor Endowments), INF(Infrastructure Hassles)+ BCR(Bank credit availability)+PU(Policy Uncertainty) + CE(Changes in Economy) UBR= Unit's bank relationship, MOF=Market orientation of firm, AME=Ability to meet expenses EO=Entrepreneurial Orientation

Table 7.4: Modeling the impact of Entrepreneurial Orientation

			Estimate	S.E.	C.R.	P	Label
PROMOTER_BEHAVIOR	<	EO	1.162	.104	11.189	***	par_3
PERCEPTIONS_NONPROMOTER	<	EO	2.173	.281	7.726	***	par_4
UBR	<	EO	.367	.163	2.260	.024	par_7
MOF	<	PROMOTER_BEHAVIOR	.124	.053	2.360	.018	par_1
MOF	<	PERCEPTIONS_NONPROMOTER	.085	.019	4.370	***	par_2
MOF	<	EO	.684	.101	6.763	***	par_6
MOF	<	UBR	.050	.033	1.483	.138	par_8
AME	<	MOF	.387	.023	16.892	***	par

Source: AMOS Outcomes

The illustration below captures the possible moderations of two factors 'LBCP (lack of business continuity planning)' and 'MMA (misguided market acquity)'.

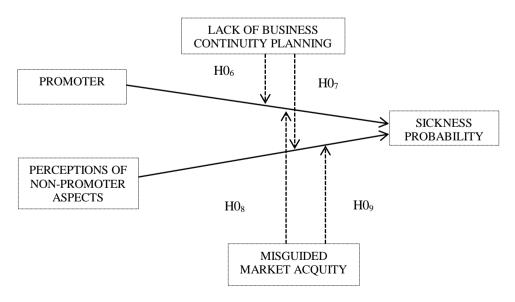


Figure 7.4: Moderation effect assessment

Source: Self compiled

The structural paths representing the 'LBCP (lack of business continuity planning)' and 'MMA (misguided market acquity)' moderating effects model, was achieved with maximum likelihood estimation (ML) approach.

Table 7.5: Moderation influences

	Relationship			Estimate	S.E.	C.R.	P	Label
$H0_6$	SICKNESS	<	LBXPROM	.83	.002	40.878	***	par_1
$H0_8$	SICKNESS	<	MIXPROM	.111	.004	-31.506	***	par_2
	SICKNESS	<	PROMOTER	.375	.072	5.170	***	par_3
	SICKNESS	<	NON_PROMOTER	.54	.044	1.212	.226	par_4
$H0_7$	SICKNESS	<	LBXPERC	.12	.002	-7.563	***	par_5
$H0_9$	SICKNESS	<	MIXPERC	.67	.002	28.273	***	par_6
	SICKNESS	<	LB	.912	.260	-30.438	***	par_7
	SICKNESS	<	MI	.80	.400	10.200	***	par_8

Source: AMOS Outcomes

The overall results points towards the incidence of substantial impact of 'lack of business continuity planning' and 'misguided market acquity' as ultimately leading to state of industrial sickness. The results exhibit that 'LBCP (lack of business continuity planning)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.83, p<0.05) across promoter behavior. Across perceptions of non-promoter aspects, 'LBCP (lack of business continuity planning)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.12, p<0.05).

This finding shows that a greater level of LBCP would ultimately lead to industrial sickness probability. The results vindicate the earlier studies and regard 'LBCP (lack of business continuity planning)' as vital antecedent of 'industrial sickness'. The results exhibit that 'MMA (misguided market acquity)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.111, p<0.05) across promoter behavior. Across perceptions of non-promoter aspects, 'MMA (misguided market acquity)' interactive term was significantly related to industrial sickness probability ( $\beta$ =0.67, p<0.05). This findings shows that a greater level of MMA would ultimately lead to industrial sickness probability. The results vindicate the earlier studies and regard 'MMA (misguided market acquity)' as vital antecedent of 'industrial sickness'. There is significant cross factorial impact in shaping the phenomenon. Hence the objective stands achieved.

### 7.2.4 Objective Four: Analysis of relationships amongst the factors

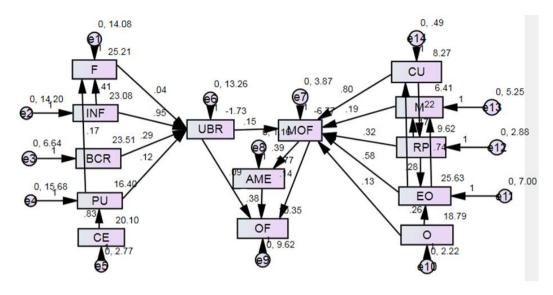


Figure 7.5: Aggregate main effect mode: Paths and related information on causal linkages

Source: AMOS Outcomes

Where F=Factor Endowments, INF=Infrastructure Hassles, BCR=Bank credit availability, Policy Uncertainty, CE=Changes in Economy, UBR= Unit's bank relationship, MOF=Market orientation of firm, AME=Ability to meet expenses, OF=Organizational failure/Sickness/Lack of financial performance, CU =Capacity Utilization, M=Managerial control, RP=Resource Planning, EO=Entrepreneurial Orientation, O=Occupational Commitment

Table 7.6: Summarizing the mapped relationships shaping industrial sickness

				Estimate	S.E.	C.R.	P	Label
	EO	<	О	.261	.144	1.816	.069	par_9
Н6	PU	<	CE	.832	.192	4.341	***	par_1
	F	<	INF	.414	.080	5.164	***	par_19
	F	<	PU	.168	.072	2.328	.020	par_20
H7	UBR	<	PU	.123	.071	1.731	.083	par_2
H8	UBR	<	BCR	.294	.114	2.587	.010	par_3
H9	UBR	<	INF	.950	.084	11.275	***	par_4
H10	UBR	<	F	.044	.078	.561	.575	par_5
	M	<	EO	.740	.069	10.719	***	par_10
	M	<	RP	.174	.110	1.582	.114	par_16
H11	MOF	<	UBR	.153	.030	5.063	***	par_6
H1	MOF	<	EO	.580	.086	6.711	***	par_8
H2	MOF	<	M	.186	.069	2.686	.007	par_11
Н3	MOF	<	0	.133	.108	1.232	.218	par_21
H4	MOF	<	RP	.319	.096	-3.342	***	par_22
H5	MOF	<	CU	.795	.227	7.902	***	par_23
H14	AME	<	MOF	.387	.023	16.486	***	par_7
H16	OF	<	AME	.384	.233	-1.647	.100	par_12
H13	OF	<	UBR	.092	.049	1.886	.059	par_17
H15	OF	<	MOF	.142	.114	1.243	.214	par_18
	CU	<	EO	.157	.021	7.562	***	par_13
	RP	<	CU	.216	.194	1.116	.264	par_14
	EO	<	RP	.281	.144	1.955	.051	par_

The structural hypothesis vindicates the relationships amongst the promoter driven, non-promoter based factors and the resultant outcomes as mentioned here.

Table 7.7: Summarizing the mapped hypothesis shaping industrial sickness

	T					
TT1						
H1	There is significant relationship between the "lack of entrepreneurial orientation" and the "failure in unit's market orientation"					
	and the "lanure in unit's market orientation"					
	<b>Observation:</b> The promoter's "lack of entrepreneurial orientation" was observed to lead					
	to 0.580 times increase in failure of the unit to attain effective market orientation					
H2	There is significant relationship between the "lack of management control" and the					
	"failure in unit's market orientation"					
	<b>Observation:</b> The promoter's "lack of management control" was observed to lead to					
	0.186 times increase in failure of the unit to attain effective market orientation					
Н3	There is significant relationship between the promoter's "lack of occupational					
	commitment" and the "failure in unit's market orientation"					
	<b>Observation:</b> The promoter's "lack of occupational commitment" was observed to lead to 0.133 times increase in failure of the unit to attain effective market orientation					
H4	There is significant relationship between the "inappropriate resource planning"					
114	and the "failure in unit's market orientation"					
	and the landre in time 5 market offentation					
	<b>Observation:</b> The promoter's "inappropriate resource planning" was observed to lead to					
	0.319 times increase in failure of the unit to attain effective market orientation					
H5	There is significant relationship between the "inadequate capacity utilization" and					
	the "failure in unit's market orientation"					
	<b>Observation:</b> The promoter's "inadequate capacity utilization" was observed to lead to					
	0.795 times increase in failure of the unit to attain effective market orientation					
Н6	There is significant relationship between the "perceptions of changes in economy"					
110	and the "perceptions of policy based uncertainty"					
	The state of the s					
	<b>Observation:</b> The "perceptions of changes in economy" was observed to lead to 0.832					
	times increase in the "perceptions of policy based uncertainty"					
H7	There is significant relationship between the "policy uncertainty" and the "unit's					
	relationships with bank"					
	<b>Observation:</b> The perceptions of "policy uncertainty" were observed to lead to 0.123					
	times increase in the imbalance in "unit's relationships with bank"					
Н8	There is significant relationship between the "perceived availability of bank credit"					
110	and the "unit's relationships with bank"					
	The same same same same same same same sam					
	<b>Observation:</b> The perceptions of "availability of bank credit" were observed to lead to					
	0.294 times increase in the imbalance in "unit's relationships with bank"					
H9	There is significant relationship between the "infrastructural hassles" and the					
	"unit's relationships with bank"					
	<b>Observation:</b> The perceptions of "infrastructural hassles" were observed to lead to					
H10	0.950 times increase in the imbalance in "unit's relationships with bank"  There is significant relationship between the "lack of factor endowments" and the					
1110	"unit's relationships with bank" by the promoter					
	and a remaining their sums of the promoter					

	<b>Observation:</b> The perceptions of "lack of factor endowments" were observed to lead to
	0.044 times increase in the imbalance in "unit's relationships with bank"
H11	There is significant relationship between the small scale unit's "perceived
	imbalances in unit's relationships with bankers" and the "failure in market
	orientation" of the small scale unit
	<b>Observation:</b> The perceptions of "imbalances in unit's relationships with bank" were
	observed to lead to 0.153 times increase in the "failure in market orientation"
H12	There is significant relationship between the "unit's relationships with banks" and
	the "organizational failure"
	<b>Observation:</b> The perceptions of "imbalances in unit's relationships with bank" were
	observed to lead to 0.092 times increase in the "organizational failure"
H13	There is significant relationship between the "failure in unit's market orientation"
	and the "inability to meet expenses" across small scale unit
	<b>Observation:</b> The perceptions of "failure in unit's market orientation" were observed to
	lead to 0.387 times increase in the "inability to meet expenses"
H14	There is significant relationship between the "failure in unit's market orientation"
	and the "organizational failure"
	<b>Observation:</b> The perceptions of "failure in unit's market orientation" were observed to
	lead to 0.142 times increase in the "organizational failure"
H15	There is significant relationship between the "inability to meet expenses" and the
	"organizational failure" by the promoter
	<b>Observation:</b> The perceptions of "inability to meet expenses" were observed to lead to
	0.384 times increase in the "organizational failure"

There is significant structural impact in shaping the phenomenon. Hence the objective stands achieved.

# 7.2.5 Objective Five: Suggestion of remedial turnaround strategies for recovery and performance

In line with one of the research objectives to suggest remedial turnaround strategies for recovery and organizational performance management, the current research devised clear and concise courses of action that are practical, workable as well as matching to the problems being faced by the regional and local perspective in Andhra Pradesh. These action plans and suggestions are based on the endogenous and exogenous factors that shape the phenomenon as identified across factor analysis.

### 7.3 Suggestions for stakeholders

The research outcomes categorically points towards the attributes (internal deficiencies and external dependencies) that are contributing to industrial sickness in state proposition. The research outcomes vindicate the influence of 'promoter' and 'non promoter' aspects on the induced 'industrial sickness' in small scale enterprises

in Andhra Pradesh state. The research outcomes point towards the influence of 'promoter behavior' on enterprise level sickness. In similar perspective, the research outcomes vindicate that the perceptions of non-promoter aspects are strongly related with sickness. In likewise manner, the 'Entrepreneurial orientation (EO)' at aggregate level corresponded to impacts on 'promoter behavior' and 'perceptions of non-promoter aspects' as well as outcomes in significant manner. The factors 'LBCP (lack of business continuity planning)' and 'MMA (misguided market acquity) equally increased the sickness probability at incumbent state level small scale enterprises. As such the promoter's own entrepreneurial orientation and measures to strengthen the promoter's resolve; are desired and recommended. The suggestions as emerging from the research findings point towards significant role of promoter in shaping survival or sickness prospects. The core suggestions involve the critical role of the promoter in shaping firm's response(SSE's response) to existing business environment and promoter's articulation of corporate interests seem to determine the feasibility of survival or failure.

In line with rising economic clout of SSEs, the Indian government and policy mechanisms needs to devise policies aimed at strengthening and focusing the promoter's manner of interest articulation for the firm based profit earning and staying afloat in business.

The recommendations hence aim at transforming the current situation to one whereby the promoter based interest articulation could be more focused at taking necessary actions that could prevent sickness or failure prospects.

### 7.3.1 Promoter's Role is crucial

One thing is certain that small scale units, especially their promoters (entrepreneurs) need to undertake action on both the fronts: internal mismanagement as well as external dependency correction. This in other words point towards the need for active involvement of the entrepreneur in the turnaround process and concentrate the resources and actions on the aspects that need utmost and urgent attention.

• **Need to respect new strategies/plans**: The first locus of attention is essentially the promoter's own entrepreneurial orientation with regard to the venture. The small scale unit owners especially in tile manufacturing, coir based product manufacturing as well as packaged water manufacturing plant

owners need to focus on the unit profitability, idea development as well as the innovation in product design and marketing. As vindicated in exploratory and confirmatory factor analysis in subsequent chapters, the current unit owners lack the respect for new strategies/plans even if they are not certain that they will always work. Such an aspect of working needs to give way to acknowledging creativity and innovation with regard to product and process development.

- Encourage people (employees) with new ideas: The small scale entrepreneur (promoter) needs to encourage people in the current unit to take risks with new ideas. At the same time he needs to continuously try to discover additional needs of the existing customers of which they are unaware.
- **Technological leadership**: A strong emphasis on R&D and technological leadership is advised in order to attain and sustain the market positioning and competitiveness. The technology needs to be followed, understood and leveraged in the production process wisely and appropriately. The timely upgradation is equally required to match the domestic and export markets.
- Competitive posture: There should be a stringent willingness to adopt very
  competitive posture toward the competitors. The small scale manufacturing
  units often lack the stimulus and the will power to compete and position the
  product and the presence strategically across the market.

### 7.3.2 Resource planning needs to be revisited

The small scale entrepreneurs were observed to lack tremendously with regard to assessment and leverage of technological capabilities and equipment, access to and leverage of real time market knowledge as well as effective control and access to distribution channels with regard to product reach across the segment market. The turnaround hence concentrates on the policy measures as well as promoter's strategy with regard to the improvements in current resource planning practices as well as sustenance and adoption of forward looking and pro market knowledge usage policies.

### 7.3.3 Managerial control needs to be acquired and executed

The reported diversion of funds as well as unplanned capital expenditures and the respective inability and failure to extract maximum possible from the current

employees; were reported that some of the prominent causes that are stalling the process of recovery as well as challenge the early revival of the sick industrial units. The turnaround strategy hence needs to sensitize the promoters (entrepreneurs) with regard to the ill effects of the diversion of funds, unplanned capital expenditures and promoter's failure to extract maximum possible from the current employees. The policies need to be devised with regard to the interpretation and assessment of the promoter's misfit and impact of the action as leading to decrease in availability of funds and liquid resources.

# 7.3.4 Need for ensuring optimum Capacity Utilization in line with market development

The adequate and efficient capacity utilization figured prominently as a major problem that could degrade the prospects for early possible recovery and timely revival of the industrial decline and respective sickness. The measures should be taken to ensure optimum utilization of installed capacity for production.

## 7.3.5 Securing government support

The unit based turnaround also seems to depend significantly on the extent of the support that is available from across the government in terms of resources, exemptions, fiscal and monetary incentives. The state government as well as cluster development strategy across MSME ministry needs to ensure provision of adequate financial subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor. The turnaround requires sanctioning of waivers on stamp duty, registration charges, taxes, government charges for tender participation for institutional business development. The government's role is tremendous in the successful revival and the rehabilitation of the sick industrial units. This role has been highlighted again and again across the reports of central bank, industry development banks, SIDBI as well as working of the ministry of MSME as well as the publications of Niti Ayog.

### 7.3.6 Accessing bank credit: Change the modes and scope

The turnaround needs to concentrate on the strengthening of unit based financial management as well as liquidity enhancement measurements across the turbulent phases. The unit should be ensured easily available bank loans, easily available capital from suppliers or customers as well as ensure the easy availability of the capital from

a multiple source so as to rationalize the cost of capital available for the unit owner. The turnaround is reportedly successful when the unit's modes and methods are relatively competitive in terms of financial resource mobilization and allocation.

### 7.3.7 Strengthen the ability to Interpreting changes in economy and demand

The unit based turnaround is impossible without the repetitive and timely, consistent and formal interpretation of the market based recession and evolution of demand cycles in the market scenario. The existing programs and initiatives that enable the promoter's knowledge dissemination with regard to market trends is weak and such a state of affair could pose challenge for revenue sustaining and operational impetus based turnaround. The presence of wider gulf across the promoter's cache of the market knowledge and the actual market conditions; makes the matter worse for the sustainable recovery. The firm faces competition from the availability of the alternatives or substitutes or if the price of product is stagnant for a longer time period; these are hazardous for the recovery.

### 7.3.8 Need for maintaining unit bank relations

The unit's relationships with key stakeholder especially the bank is crucial for recovery, turnaround as well as sustenance of the ability to maintain liquidity and maintain the day to day expenses. The existing research on the factors affecting the unit-bank relations highlighted the role of the promoter and the top management<sup>12</sup> in communicating and making aware the stakeholders regularly with regard to the financial abilities and inabilities to meet the credit payback and the suggestive operational turnaround plan as and when required. The ability of the incumbent unit to take the bank into confidence across the turnaround process; has been observed to increase the prospects for seamless and consistent recovery.

### 7.3.9 Units need to ensure Pro market orientation

The existing studies on turnaround strategizing have emphasized the unit's orientation with market as most vital for unit to recover timely as well as ensure the success of new product. The market orientation essentially aims at orienting the unit and its products and services with regard to market based needs and changes. The revival and turnaround is essentially driven by customers demanding new products or services

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<sup>12</sup> http://turnaround-society.com/tag/banks/

and respective ability of the unit to fulfill these aspirations. The unit needs to monitor the level of commitment to serving customer's needs and the unit based strategy for competitive advantage should be based on the understanding of customer needs. The promoter needs to coordinate all of the existing business activities in order and organized manner to serve the needs of the target markets. The strategy making at unit needs to quickly to respond to competitive actions that threaten the existence.

### 7.3.10 Units need to maintain financial liquidity

The policies aimed at sustaining the unit based liquidity have failed at promoting the product line innovation as well as retention of unit's market orientation across times and periods of recession. The organizational turnaround and its relies on the ability to meet operating costs, ability to pay for acquiring the essential inputs as well as addressing the issues of high marginal losses. The unit needs to understand business environment and exercise financial discipline. Instead of targeting the problem directly and taking fiscal and other measures, the current government policy seeks to mitigate the responsibility from government on to the promoter for self-management.

# 7.4 Policy Implications of Study Findings: Theoretical and Strategic Issues

The sole aim of the current research was to explore the "sickness behavior" of the manufacturing units in SSI sector in Andhra Pradesh. The foremost feature of the small scale units (Dragnic, 2014) lies in their abilities to focus more on the personal and individual driven management attributes (owner and the manager are one and same person), usual restricted access to market as well as economic factors of production, face the impact of external factors like the state authorities, policy change by banking and credit institutions as well as the larger sensitivity towards the interference from state and other contextual and socially determined factors. Yet the Indian SSI sector is experiencing decline and corporate sickness. The research seeks to classify the factors that seem to shape the decline or the organizational sickness across East Godavari, West Godavari and Krishna districts of Andhra Pradesh. The research sought to explore the promoter's role as well as unit based dependencies in shaping the current state of affairs. The research addresses the current research gap and examines the "sickness behavior" with new validation and reliability achievement methods.

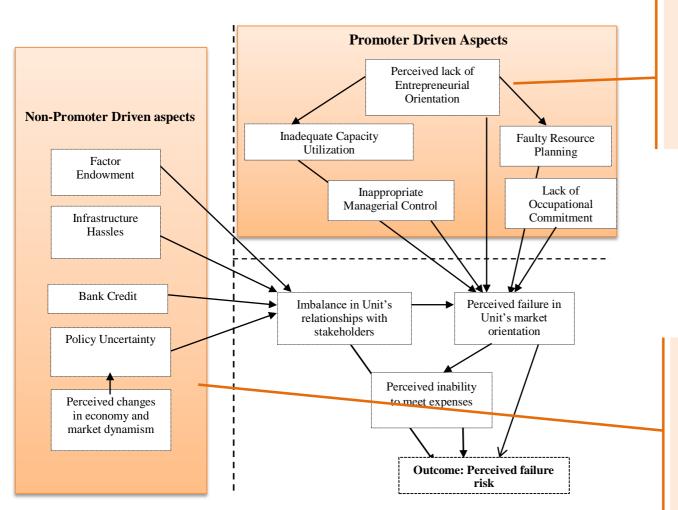
The research assumes significance as the novel interpretations of the phenomenon will definitely reflect on the changing aspects that are shaping the sickness. The up gradation of knowledge with regard to factors shaping the industrial health has massive implications for existing knowledge, for academicians, industrial policy makers as well as government bodies and financial bodies. The prime contribution of this doctoral research lies in establishing the theoretical framework that seems to link the scattered literature on the subject matter as well as posits the research across existing frameworks namely the conceptualization of Khelil and Smida.

The research also adds to the existing knowledge with the use of the factor analysis, discriminant validation and cronbach alpha based reliability assessment so as to reflect upon the authentic and empirical quantification of the "industrial behavior" in context of developing economy. The research leverages the existing theoretical approaches and seeks their comprehensive application across the Indian perspective and local contexts in Andhra Pradesh.

The research outcomes categorically point towards the "sickness behavior" as socially determined and underline the crucial role of the promoter in turnaround. The research study could be identified as the first extensive research on the coordinated and systematic exploration of the various dimensions of the phenomenon in Indian perspective. The existing literature on the subject matter traditionally avoids the usage of the factor validation and reliability assessment tools and methodologies.

The study presents the case for the most comprehensive exploration of the "sickness" phenomenon with a vast range of independent variables clubbed across the promoter and contextual aspects. The study is unique in the terms that it involves the unique combination of the factors that seem to represent the phenomenon adequately (chapter two on literature review), identification of factors (as internal and external), usage of validation tools (chapter Three, four and five focusing on the explorative factor analysis and subsequent structural equation modeling) and subsequent application of statistical tools for application of structural path based influences (AMOS based SEM analysis). The theory and development of theoretical frameworks seem to benefit from the current theoretical proposition. The first application is towards the application of existing theory in context of Indian conditions. The subsequent application of the research in theory enhancement is with regard to the phenomenon

positioning across existing theoretical framework. The research seems to cover up for the gap that exists across the existing theories and the Indian "corporate sickness" based research. The theoretical implications could also be interpreted in terms of the theory building ad theory improvement. The structural equation modeling facilitated the theory generation with the achievement of model-data fit across subsequent iterations. The following illustration captures the cross theoretical influences on the constructs being taken for the current research. In a similar manner the research brings together the various factors or variables that seem to shape the impetus for the industrial sickness behavior across small scale manufacturing units. The structural equation modeling facilitated the achievement of fit across the data and the hypothetical model. The model fit in other terms explains the substantial and statistically significant structural relationships as influencing the unit based market orientation in multiple manners. The model fit achievement validated the influence of the internal (mentioned on the right hand side of illustration) and the influence of the external (mentioned on the left hand side of illustration) dimensions on the shaping of small scale unit's respective market orientation. This unit based market orientation and subjective weakening of the orientation as well as the imbalances in unit-bank relationships; are primarily believed to lead to state of financial chaos and sickness. The policy implications are immense in form of theory, framework, conceptual interpretation and overall paradigms.



**Endogenous and Internal Influences** 

SSE Unit's Promoter driven and mindset derived influences on the operationalization of possible industrial sickness

## Exogenous influences

Environment derived influences on the operationalization of possible industrial sickness

Figure 7.6: Theoretical extensions

Source: AMOS Outcome

The study represents a novel and innovative approach towards the development of insights into the phenomenon and the influences that are shaping the organizational decline in Indian perspective. The SSI sector plays a crucial role in the national economy and will constitute to attract policy attention. The study across Indian and regional SSI sector is in line with the principles advocated across the strategies to develop global management knowledge. The context embedded and context specific research categorizes as two broad streams of literature. This research on Indian SSI sector is more context specific rather than context embedded as it involves higher levels of contextualization and seeks to interpret and examine the "sickness phenomenon" as locally developed and regionally crafted, with the aid of the existing and evolving theoretical paradigms. This research surely adds to the global management research with the exploration of the context specific variables and understands their cross influences to lay the foundation for the assimilation of regional research into global framework. The research across SSI is also significant that it uncovers the lateral aspects that seem to drive the impetus for sector based growth, survival, turnaround and further funding of the initiatives. With regard to the conceptualization of the SSI sector the research portrays the higher degree of contextualization, achieved with the indigenous development of scales and methodologies that seek to cater to local and regional aspirations.

The research could contribute to industrial and cluster based policy making in multiple aspects. The "Startup India" and other various such "incentives" for the development of small scale based manufacturing and service enterprises, need extensive review of challenges that could derail policy execution. This research could be beneficial for policy based incentive development, allocation of fiscal and non-fiscal benefits for the sector as well as understanding of cross factor linkages while policy execution on the ground level. The core policy implications can hence be summarized as:

- Promoter's interest articulation and strong resolve for competition and facing the odd situations in the market.
- EDP programs could focus on competences that should be harnessed across SSI based promoters in order to thwart the risk of failure.
- Financial credit rating initiatives should consider non-financial metrics to estimate
  unit's financial health as despite financial wellbeing unit are on verge of sickness on
  account of ineffective management and lack of market orientation.

#### 7.5 Limitations

The study is limited to three select districts of the state of Andhra Pradesh. The study is time bound in nature and owes no longitudinal basis. The study based choice of factors for operationalization of construct was influenced by the existing literature on subject across developed economies as little literature was accessible with regard to developing economy like India. The choice of measurement instrument and constituent elements could also be a limitation. The foremost limitation could be with regard to possible choice of research methodology.

#### 7.6 Directions for future research

The further research should focus on the identification of the aspects that strengthen the ability of the small scale enterprises to resist sickness as well as consistently adapt as per changing market based requirements as changes in the economic demand cycles.

The most likely areas for the conduct of future research could be figured as:

- The change in cross factor linkages in pre and post bifurcation context with regard to state of Andhra Pradesh
- The probable changes in the sickness and state of affairs with change in promoter's mindset and orientation.
- The comparative study among the small scale enterprises in the other selected districts of Andhra Pradesh.
- The moderating effect of 'harnessed competencies' on SME sickness could be
  explored vis a vis the liquidity and extent of technology leverage. The moderating
  effect of environmental dynamism on SME sickness could be explored vis a vis the
  tax system changes, hostility and heterogeneity in demand.

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**APPENDICES** 

## **Principal Component Analysis Tables: Promoter Driven Factors**

#### Communalities

	Initial	Extraction
EO_1	1.000	.914
EO_2	1.000	.918
EO_4	1.000	.921
EO_7	1.000	.943
EO_8	1.000	.861
RP_2	1.000	.646
RP_3	1.000	.849
RP_4	1.000	.787
M_1	1.000	.872
M_2	1.000	.858
M_4	1.000	.934
CU_4	1.000	.840
CU_5	1.000	.798
O_1	1.000	.649
O_2	1.000	.546
O_3	1.000	.673

Extraction Method: Principal Component Analysis.

#### Pattern Matrix<sup>a</sup>

	Component				
	1	2	3	4	5
EO_1	.912				
EO_2	.942				
EO_4	.927				
EO_7	.906				
EO_8	.791				
RP_2		.573			
RP_3		.918			
RP_4		.888			
M_1				.972	
M_2				.754	
M_4				.886	
CU_4					.883
CU_5					.838
O_1			.804		
O_2			.725		
O_3			.827		

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 5 iterations.

**Total Variance Explained** 

		Total variance Explaned						
	Initial Eigenvalues		Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	
1	6.945	43.404	43.404	6.945	43.404	43.404	6.131	
2	1.916	11.973	55.377	1.916	11.973	55.377	2.196	
3	1.829	11.429	66.805	1.829	11.429	66.805	2.077	
4	1.218	7.616	74.421	1.218	7.616	74.421	4.570	
5	1.101	6.881	81.302	1.101	6.881	81.302	3.208	
6	.670	4.190	85.492					
7	.595	3.722	89.213					
8	.484	3.026	92.239					
9	.339	2.121	94.360					
10	.327	2.046	96.407					
11	.246	1.535	97.942					
12	.116	.722	98.664					
13	.085	.534	99.198					
14	.061	.381	99.578					
15	.038	.236	99.814					
16	.030	.186	100.000					

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

## **Principal Component Analysis Tables: Non-Promoter Driven Factors**

Communalities

	Initial	Extraction
CE4	1.000	.906
CE5	1.000	.894
CE6	1.000	.900
F_1	1.000	.909
F_3	1.000	.904
F_4	1.000	.914
F_5	1.000	.868
F_6	1.000	.857
F_7	1.000	.842
BCR_1	1.000	.770
BCR_2	1.000	.907
BCR_3	1.000	.863
BCR_5	1.000	.731
PU_1	1.000	.931
PU_3	1.000	.970
PU_4	1.000	.967
PU_5	1.000	.884
PU_6	1.000	.898
INF_1	1.000	.889
INF_2	1.000	.869
INF_3	1.000	.936
INF_4	1.000	.949

Extraction Method: Principal Component Analysis.

Pattern Matrix<sup>a</sup>

			Component		
	1	2	3	4	5
CE4				.948	
CE5				.924	
CE6				.934	
F_1	.968				
F_3	.941				
F_4	.930				
F_5	.931				
F_6	.911				
F_7	.885				
BCR_1					.731
BCR_2					.946
BCR_3					.838
BCR_5					.723
PU_1		.945			
PU_3		.954			
PU_4		.965			
PU_5		.880			
PU_6		.893			
INF_1			955		
INF_2			850		
INF_3			890		
INF_4			969		

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 6 iterations.

**Total Variance Explained** 

	Initial Eigenvalues		Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>	
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.136	41.529	41.529	9.136	41.529	41.529	6.764
2	3.843	17.467	58.996	3.843	17.467	58.996	5.936
3	2.911	13.233	72.229	2.911	13.233	72.229	5.372
4	2.045	9.297	81.525	2.045	9.297	81.525	3.402
5	1.620	7.363	88.889	1.620	7.363	88.889	4.951
6	.496	2.254	91.143				
7	.371	1.687	92.829				
8	.248	1.128	93.957				
9	.201	.915	94.872				
10	.182	.825	95.697				
11	.159	.723	96.420				
12	.147	.667	97.087				
13	.126	.574	97.661				
14	.112	.508	98.170				
15	.093	.421	98.591				
16	.074	.335	98.926				
17	.064	.292	99.217				
18	.056	.254	99.471				
19	.042	.190	99.661				
20	.034	.157	99.818				
21	.023	.103	99.920				
22	.018	.080	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

## **Principal Component Analysis Tables: Outcome Driven Factors**

#### Communalities

	Initial	Extraction
UBR3	1.000	.899
UBR4	1.000	.908
UBR5	1.000	.932
UBR6	1.000	.962
UBR7	1.000	.936
UBR8	1.000	.920
MOF1	1.000	.599
MOF2	1.000	.847
MOF3	1.000	.802
MOF4	1.000	.916
MOF5	1.000	.889
MOF6	1.000	.899
MOF7	1.000	.848
AME1	1.000	.923
AMEr2	1.000	.929
AME3	1.000	.802
FP1	1.000	.921
FP2	1.000	.933
FP3	1.000	.947

Extraction Method: Principal Component Analysis.

Pattern Matrix<sup>a</sup>

	Component			
	1	2	3	4
UBR3		.969		
UBR4		.937		
UBR5		.982		
UBR6		.973		
UBR7		.956		
UBR8		.907		
MOF1	.667			
MOF2	.897			
MOF3	.947			
MOF4	.909			
MOF5	.967			
MOF6	.925			
MOF7	.673			
AME1				1.016
AME2				.737
AMEr3				.762
FP1			.958	
FP2			.964	
FP3			.973	

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 5 iterations.

**Total Variance Explained** 

	Ir	nitial Eigenval	ues	Extraction	Sums of Squa	red Loadings	Rotation Sums of Squared Loadings <sup>a</sup>
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.257	48.719	48.719	9.257	48.719	48.719	8.023
2	4.164	21.915	70.634	4.164	21.915	70.634	6.551
3	2.679	14.101	84.735	2.679	14.101	84.735	2.956
4	1.713	3.751	88.486	.713	3.751	88.486	6.400
5	.512	2.697	91.184				
6	.328	1.725	92.909				
7	.314	1.651	94.560				
8	.275	1.449	96.009				
9	.168	.886	96.896				
10	.129	.677	97.573				
11	.111	.586	98.159				
12	.081	.427	98.586				
13	.071	.373	98.960				
14	.058	.305	99.265				
15	.040	.213	99.478				
16	.034	.179	99.657				
17	.031	.164	99.821				
18	.026	.134	99.955				
19	.009	.045	100.000				

Extraction Method: Principal Component Analysis.

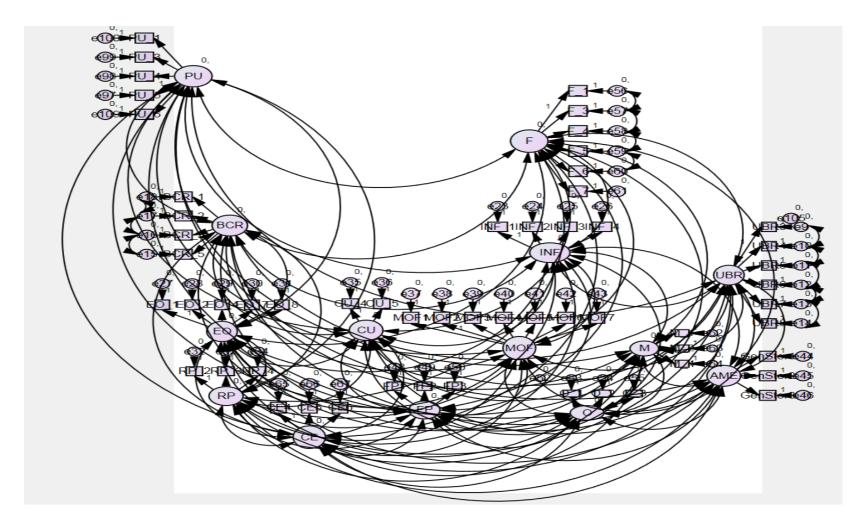
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

# **Maximum Likelihood based Regression Estimates**

		Estimate	S.E.	C.R.	P	Label
EO <	O	.261	.144	1.816	.069	par_9
PU <	CE	.832	.192	4.341	***	par_1
F <	INF	.414	.080	5.164	***	par_19
F <	PU	.168	.072	2.328	.020	par_20
UBR <	PU	.123	.071	1.731	.083	par_2
UBR <	BCR	.294	.114	2.587	.010	par_3
UBR <	INF	.950	.084	11.275	***	par_4
UBR <	F	.044	.078	.561	.575	par_5
M <	EO	.740	.069	10.719	***	par_10
M <	RP	.174	.110	1.582	.114	par_16
MOF <	UBR	.153	.030	5.063	***	par_6
MOF <	EO	.580	.086	6.711	***	par_8
MOF <	M	.186	.069	2.686	.007	par_11
MOF <	O	.133	.108	1.232	.218	par_21
MOF <	RP	.319	.096	-3.342	***	par_22
MOF <	CU	.795	.227	7.902	***	par_23
AME <	MOF	.387	.023	16.486	***	par_7
OF <	<b>AME</b>	.384	.233	-1.647	.100	par_12
FP <	UBR	.092	.049	1.886	.059	par_17
OF <	MOF	.142	.114	1.243	.214	par_18
CU <	EO	.157	.021	7.562	***	par_13
RP <	CU	.216	.194	1.116	.264	par_14
EO <	RP	.281	.144	1.955	.051	par_

Source: AMOS Outcome

# ... Appendices



Source: AMOS

# Questionnaire

#### **DETERMINANTS OF INDUSTRIAL SICKNESS IN SSEs**

SURVEY QUESTIONNAIRE

#### Dear Respondent,

The purpose of this doctoral study is to collect vital information with regard to the performance decline and the promoter's managerial perceptions with regard to the <u>industrial sickness in SSEs</u>. Your humble cooperation in completing this questionnaire is central to the accomplishment of the research exercise. We apprise that there is no right or wrong answer key to these statements yet it all depends on your experiences and observations till date. Hence we request you to complete this set of questions while we assure that your responses will be kept confidential and that the outcomes would be used for research purpose only.

#### **Perceived Entrepreneurial Orientation and experience**

Entrepreneurial orientation is widely regarded to matter in establishment and operations of the business concern. Please rate the extent to which you agree or disagree with each of the following statements, please indicate by putting a tick mark ( $\Box$ ) in the appropriate column.

	Statements on Perceived lack of Entrepreneurial Orientation	SA= Strongly Agree/Likely, A=Agree, SWA=Somewhat Agree, N=Neither Agree nor Disagree, SWD=Somewhat Disagree, D= Disagree, SD=Strongly Disagree/Unlikely
EO1	We never value new strategies/plans even if we are not certain that they will always work	
EO2	We never encourage people in our unit to take risks with new ideas	
EO3	We never look out for new business opportunities	
EO4	We never try to discover additional needs of our customers of which they are unaware	
EO5	When it comes to problem solving we never value creative solutions more than solutions that rely on conventional wisdom	
EO6	Our business is never the first to market with new products and services	
EO7	There is no strong emphasis on R&D and technological leadership	
EO8	There is no willingness to adopt very competitive posture toward the competitors	
EO9	There is no willingness to initiate actions that competitors respond to	
EO10	There is no willingness to adopt bold and aggressive postures when facing difficulties	
EO11	There is a no strong tendency to pursue high risk projects	

#### Entrepreneur's perceived unit based resource usage

The efficient or faulty planning of resource usage impacts the overall outcomes and performance across the short and long term perspective. Please indicate the extent to which you agree or disagree with each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column. These items are to be indicated vis a vis your assessment of firm's strength in assets and resourcefulness in strength relative to your competitor.

	Statements on Entrepreneur's Perceived Resourcefulness of unit	1=much stronger than competitor, 7=Much weaker than competitor
RP_1	Lacks Managerial Competencies	
RP_2	Lacks Technological capabilities and equipment	
RP_3	Lacks Market Knowledge	
RP_4	Lacks Control and Access to distribution channels	
RP_5	Improper Coordination	
RP_6	Lack of Strategic Planning	
RP_7	Decreased ability to attract creative employees	
P_8	Worsening Firm Climate	
RP 9	Non-Efficient Structure	
RP 10	No advantageous relationships with customers	
RP_11	Erosion of Customer's installed base	
RP_12	Inefficient and Ineffective production setup	
RP 13	Lack of Economies of scale and technical experience	
RP 14	Stagnant Knowledge and skills of employees	

#### Perceived Imbalances in Stakeholder relations

Stakeholders comprise the bankers, credit institutions and the other elements like the employees and suppliers. The small enterprises often fault on maintaining functional relations with them. How confident is the promoter in his ability to perform a variety of activities, please indicate by putting a tick mark  $(\Box)$  in the appropriate column. (1=Very Unlikely, 7=Most Likely)

	Statements on Unit's Perceived Relationships with stakeholders/unit-bank relations	1=Very Unlikely, 7=Most Likely
UBR1	Designated managers have no responsibility for aiming to satisfy stakeholder's interests	
UBR2	We never gather comparative information about our competitors to plan superior returns for our stakeholders	
UBR3	We never freely share concerns and problems about the unit and know that they will respond constructively	
UBR4	We never freely share the concerns and problems regarding our unit and know that they will be interested in listening	
UBR5	We never share common business values with the bank	
UBR6	We feel that the bank will never act in a fashion consistent with what we recommend without prior discussion with us	
UBR7	Senior manager/promoter has no regular meetings with bankers	
UBR8	Our website is never updated with comprehensive management communications aimed at bankers	

#### **Perceived Infrastructural Hassles**

The small enterprise relies on the basic economic infrastructure to enable production, operations and supply chain maintenance. Please rate the deficiencies and the obstructions as faced by the unit, Please indicate your response for each of the following statements by putting a tick mark ( $\square$ ) in the appropriate column.

	Statements on Unit's Perceived Infrastructure hassles	N=Never, R=Rarely, O=Occasionally, S=Sometimes, U= Usually, E=Every time, A=Always
INF_1	To what extent there was incomplete and poor quality access to power supply at your end	
INF_2	How far and how occasionally you face transportation and communication problems at your industrial premises?	
INF_3	In wake of larger and longer access to consumption markets, how occasionally you maintain inventory	
INF_4	To what extent are municipal and industrial water usage and power tariffs fair to small scale units	
INF_5	To what extent the irregular power and water supply contributed to downturn in the small scale units	
INF_6	To what extent there was incomplete and poor quality access to power supply at your end	

#### Perceived non-sufficient availability of factorial endowments

The economic factors of production are vital for production yet consistent access to such resources is essential for the firm to sustain competitiveness and revenue generation. Using the following statements please indicate the extent to which you agree or disagree

	Statements on Unit's Perceived insufficient factor endowments	1=Least Important, 7=Most Important
F_1	To what extent you faced difficulty in procuring the essential raw inputs and materials	
F_2	To what extent you faced difficulty in procuring the raw matters that impact the productive capacity	
F_3	To what extent price related volatility and increased input costs impacted productive capacity of the unit	
F_4	To what extent the raw material shortages impact overall productivity?	
F_5	To what extent the non-availability of local labor impacts the productive usage?	
F_6	To what extent the time taken in sanctioning of loan/ credit impacted the productive usage?	
F_7	To what extent the rate of interest was fair and equitable with regard to market standards and the impact on productive usage	
F_8	To what extent the unit is under financed in terms of working capital and fixed asset acquisition	
F 9	To what extent the unit faced production consequences on account of insufficient availability of	
_	funding for production continuance, operations management and marketing	
F_10	To what extent the unit faced terms and conditions framed by local banks while sanctioning the credit	

#### Perceived ability to retain Market Orientation

The enterprise small or medium need to harness the appropriate market orientation and fit the mosaic of the existing environment and the government regulation as well as the consumer markets in order to be successful. Please indicate the extent to which you agree or disagree

	Statements on Unit's Market Orientation	1=Least Important, 7=Most Important
MOF1	In our market, the customers frequently demand new products or services	
MOF2	We never monitor the level of commitment to serving customer's needs	
MOF3	Our strategy for competitive advantage is never based on our understanding of customer needs	
MOF4	We never coordinate all of our business activities in order and organized manner to serve the needs	
MOF5	We are never quick to respond to competitive actions that threaten us	
MOF6	We never discuss competitor's strengths and strategies	
MOF7	Our strategies are never driven by our beliefs about how we can create greater value for our customers	
MOF8	The business objectives on the unit are never driven by customer satisfaction	
MOF9	Our offering of products / services to our customers never changes constantly	

MOF10	In our market, the amount of products/services to be supplied changes often and quickly
MOF11	In the market we operate in, each day something changes
MOF12	Of what happens in the market, nothing remains unknown to us

#### Perceived General Economic Conditions and Unit's access to market

The economic conditions in the economy impact the manufacturing as well as consumption of the goods and services. How far you agree or disagree with each of the following statements regarding the environment in which the firm operates, please indicate by putting a tick mark

	Statements on Unit's Perceptions of Economy conditions	SA= Strongly Agree, A=Agree, SWA=Somewhat Agree, N=Neither Agree nor Disagree, SWD=Somewhat Disagree, D= Disagree, SD=Strongly Disagree
CE1	Andhra Pradesh's present economic situation is bad	
CE2	Firm's products are facing market based recession and lack of demand	
CE3	State's economy worse off for coming one year	
CE4	The firm faces competition from the availability of the alternatives or substitutes	
CE5	The price of product is stagnant for a longer time period	
CE6	The decision making was largely driven by how much we could afford to lose	
CE7	The lack of adequate demand f the product is stifling the revenue generation	
CE8	It is impossible to see from the beginning where we wanted to end	
CE9	Now a days, state economy is in worst period in last decade	
CE10	There is extensive price based competition from registered and unregistered unit	
CE11	There is abrupt change in tax laws and compliance requirements	
CE1	There is extensive competition from the organized and unorganized sector units	

#### **Improper Capacity Usage**

Please indicate your response for each of the following statements by putting a tick mark ( $\square$ ) in the appropriate column.

	Statements on Unit's Perceptions of Economy conditions	A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never
CU1	To what extent the current technology/processing contributes to the adequate capacity utilization	
CU2	To what extent the installed machinery is consistently serviced and modernized effectively	
CU3	To what extent the installed machinery operates at its optimum levels	
CU4	To what extent the installed machinery usage suffers on account of lack of professional knowledge	
CU5	To what extent shortage of finance leads to reduced turnover	
CU6	To what extent lack of maintenance leads to improper machine usage	
CU7	To what extent the production process is unable to cope up with latest demand based developments	
CU8	To what extent frequent breakdown of machinery leads to disruptions in production	
CU9	To what extent want of skilled labor forces the shutdown or lowered production	
CU10	To what extent the lack of whole time interest leads to decline in production	

#### Perceived management controls and governance

Please indicate your response for each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column.

	Statements on Entrepreneur's Perceptions of inefficiencies and lack of control	A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never
M_1	To what extent the past diversion of funds contributed to misfit and current state of affairs	
M_2	To what extent the past unplanned capital expenditures lead to decrease in availability of funds and liquid resources	
M_3	To what extent you are able to manage employees and are satisfied with their resultant contribution	
M_4	Does the inability and failure to extract maximum possible from the current employees leading to current state?	
M_5	To what extent your inability to deliver the orders in time leasing to loss of trust	
M_6	To what extent the cost of your unit's overall production schedule is remained greater than the competitors and input costs	
M_7	To what extent you adopted same old methods of marketing instead of contemporary and modern tactics to realize the potential of target market	
M_8	To what extent you ignored the transitions in consumer behavior and pushed the same old products across the channel	

#### Promoter's occupational and task expertise and commitment

Please indicate your response for each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column.

	Statements on Entrepreneur's Perceptions of occupational commitment	A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never
0_1	I consider myself incompetent to engage in in-depth, specialist discussions in my job domain	
0_2	During the past year, I was, in general, incompetent to perform my work accurately	
0_3	During the past year, I was in general, incompetent to take prompt decisions	
0_4	I consider myself incompetent to indicate when my knowledge is insufficient to perform a task or solve a problem	
O_5	I consider myself incompetent to provide information on my work in a way that is comprehensive	
0_6	In general I am competent to distinguish main issues from side issues and to set priorities	
O_7	During the past year, I was in general incompetent to carry out my work independently	
O_8	I consider myself incompetent to be of more practical assistance to colleagues about approach	
O_9	I consider myself incompetent to weigh up and reason out the pros and cons of particular decisions on working methods, materials and techniques in my job domain	

#### Perceived Access to institutional credit

Please indicate your response for each of the following statements by putting a tick mark ( ) in the appropriate column.

	Statements on Entrepreneur's Perceptions of inefficiencies and lack of control	A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never
BCR_1	Bank loans are never easily available for us	
BCR_2	Capital from suppliers or customers is never easily available for us	
BCR_3	Capital from other sources is easily available for us	
BCR_4	Bankers and other investors never go out of their way to help new firms get started	
BCR_5	Relative to competitors we have no advantageous financial resources	

#### Perceived government policy support and industry policy

Please indicate your response for each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column.

	Statements on Entrepreneur's Perceptions of policy support and uncertainty	7=A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never=1
PU_1	There is no provision of level playing field with fiscal and non fiscal incentives for small sector promotion, trade agreements, export promotion and tax holidays and duty rationalization	
PU_2	Marginal acceptance of single window procedures and self-certification	
PU_3	There is no support for strengthening value chains and facilitation of supporting ecosystem and cluster for downward and upward linkages	
PU_4	Large number of rules and regulations for getting concession, subsidy and aid for industry establishment	
PU_5	No subsidy for asset acquisition, purchase of raw materials and skill enhancement of labor	
PU_6	No waivers on stamp duty, registration charges, taxes, government charges for tender participation	
PU_7	No Entrepreneurial guidance from DIC	
PU_8	No support and monetary incentives for market access, trade exhibition and market infrastructure access	
PU_9	No support for legal work	

#### Unit's perceived ability to meet expenses

Please indicate your response for each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column.

	Statements on Entrepreneur's Perceptions of ability to meet expenses	7=A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never=1
AME1	The unit pays the obligations with difficulty as cash position is rarely monitored	
AME2	The unit is unable to meet operating costs	
AME3	The unit is unable to pay for acquiring the essential inputs	
AME4	The unit has decreased ability to pay for taxes	
AME5	The unit is facing fluctuations in cash inflows	
AME6	The credit sales comprises a larger section and there are lot of slow paying customers	
AME7	The bad debts are locking the capital unnecessarily	
AME8	The unit rarely employs cash recovery and cash flow management practices	
AME9	There is no practice of keeping accurate accounting records	

#### Unit's perceived failure risk

Please indicate your response for each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column.

	Statements on Entrepreneur's Perceptions of failure risk	7=A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never=1
FP1	The unit is experiencing high marginal losses	
FP2	The unit does not understand business environment	
FP3	The unit exercises no financial discipline	
FP4	The quality of relationships with stakeholders has degraded	
FP5	The goodwill generation is negligent	
FP6	The clusters of SMEs can be competitive against larger enterprises	
FP7	With clustering the SMEs can be stronger against crisis	
FP8	The unit generates a relatively lower return on assets than our competitors do	
FP9	The unit has no cost advantage compared to major competitor	

#### Perceived business continuity planning

Please indicate your response for each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column.

	Statements on Entrepreneur's Perceptions of business continuity planning	7=A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never=1
	The SME unit does not know how much time is acceptable for responding to threats to	
LBC1	business operations	
LBC2	The SME unit never ever reviews the business continuity plans for its operations	
	The SME unit rarely trains the employees for meeting the sudden response requirements	
LBC3	while competition and disruptions	
	The SME unit has no documented procedure for coping with sudden response and threats	
LBC4	from environment	

#### Perceived market acuity

Please indicate your response for each of the following statements by putting a tick mark  $(\Box)$  in the appropriate column.

	Statements on Entrepreneur's Perceptions of market intelligence/acuity	7=A=Always, E=Mostly Every time, U= Usually, S=Sometimes, O=Occasionally, R=Rarely, N=Never=1
MMA1	SME unit knows the market demand well	
MMA2	Knows the customer based price sensitivity	
MMA3	SME has confidence about product success and timely changes	
MMA4	SME knows the competitor's products and strategies	

#### **Entrepreneurial Motivation and Integrity of Promoter**

		The decis	The decision to choose entrepreneurship as self-employment and			
•	First time venture establishment	career of	ption was influenced by which of these aspects?			
•	Pull Entrepreneur	•	Awareness of gaps			
•	Push Entrepreneur	•	Incentive structure and state support			
•	Family entrepreneur	•	Boom in industry			
•	None of these	•	Not able to exercise other options			
As entrepreneur what transformations you introduced in the						
As entrep	reneur what transformations you introduced in the	Please ra	ate your sense of seriousness with regard to management of			
As entrep existing in	·	Please ra	ate your sense of seriousness with regard to management of			
	·		ate your sense of seriousness with regard to management of  Very serious			
	ndustry?		,			
	ndustry? Changes in technology		Very serious			
	ndustry? Changes in technology Changes in product mix		Very serious Serious			

# The Entrepreneur's Profile

Time since you are owner of the unit	Educational qualification of the entrepreneur Up to Intermediate Graduate Post Graduate & Above
The Unit's Profile	
District of Unit's Location	Nature of Industrial Activity
<ul> <li>East Godavari</li> </ul>	Manufacturing
<ul> <li>West Godavari</li> </ul>	Servicing
<ul> <li>Krishna</li> </ul>	• Assembling
	Agro Processing
Unit Size	Unit Age
Less than 10 Employees	0-1 Year
Between 10-20 Employees	1-2 Year
More than 20 employees	2-5 Year
Is the unit located in specified industry cluster	Current stage of Business life cycle
Yes	Establishment
No	Growth
	Stagnation
Provision and Maintenance of cash reserves	Which of following Institutionalized barriers to entry, you face in th
Yes	region:
No	Conditions with regard to establishment of unit
	Minimum capital investment
	Essential Product differentiation Know-How required
	Cartelization and nexus
Have you ever seeked ISO certification for unit	Accounts maintenance and financial discipline
Yes	Maintained all accounts books
No	Some accounts
	No formal account maintenance

\*\*\*\*

# Determinants of Industrial Sickness in Small Scale Enterprises -An empirical evidence of three districts of Andhra Pradesh

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#### **PRIMARY SOURCES**

Siva Krishna Golla, K. Ramachandra Rao. ""Promoter" as an agency in decline of "market orientation" across small scale enterprises in Andhra Pradesh: Study on three selected districts", Journal of Public Affairs, 2020

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