

Factors Influencing Entrepreneurship : A Study on MSMEs Under Industrial Infrastructure

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Abstract

Micro, small, and medium enterprises play an important role for developing economies like India. Industrial infrastructure is essential for growth of industries. An attempt was made to examine the role of Assam Industrial Infrastructure Development Corporation in promotion of entrepreneurship under industrial infrastructure. Industrial infrastructure includes industrial estate, industrial area, mini industrial estate, integrated infrastructure development center, industrial growth center etc. in the state. A research enquiry was done for 177 micro, small, and medium enterprises located in the Industrial Infrastructure situated in Kamrup (metro) and Kamrul (rural) district of Assam. It was found that entrepreneurs are influenced by ambition factors, compelling factors, and facilitating factors.

Keywords : Entrepreneurs, industrial area, industrial estate, industrial infrastructure

Paper Submission Date : October 8, 2021 ; **Paper Sent Back for Revision :** November 12, 2021 ; **Paper Acceptance Date :** November 18, 2021.

Industrialization plays an important role in the socio economic development of a country. Large and small-scale enterprises are two important components of industrialization. MSMEs are vibrant and dynamic sectors for the economy of India. With low capital investment, small scale industries can create more employment opportunities for skilled, semi-skilled, and unskilled employees by optimum utilization of resources. It is a tool for balanced regional development by reducing disparity in distribution of income. As per National Sample Survey 73rd Round (2015-16), India's Micro Small and Medium Sector comprised of 633.88 lakh units among which 630.52 lakh were micro units, 3.31 lakh were small units, and 0.05 lakh were medium units. MSME sector has created 1109.89 lakh jobs throughout the country (Ministry of Micro, Small and Medium Enterprises, n.d.).

Availability of industrial infrastructure facility has a major impact on growth of industries. National Council of Applied Economic Research (1996) defined infrastructure as “the physical framework of facilities through which goods and services are provided to the public.” Infrastructure can be classified into three categories viz., economic, social, and institutional. Economic infrastructure is also termed as hard-core infrastructure and includes transportation, communication, energy etc. Social infrastructure includes education, health, water etc. and banks, markets are examples of institutional infrastructure. As per the report of Fourth All India Census of Micro, Small and Medium Enterprises, lack of infrastructure is an important reason for slow growth of small-scale enterprises.

Government of India has introduced elaborate schemes and programmes for growth of small-scale enterprises since independence. The Micro Small and Medium Enterprises Development Act 2006 has been introduced and the concept has been redefined by abolishing reserved items for manufacturing in small scale industry. Enlarging the scope of MSME as a part of Aatmanirbhar Bharat Abhiyaan on May 13, 2020, government redefined the concept of MSME by diluting the differences between manufacturing and servicing enterprises (Ministry of Micro, Small & Medium Enterprises, n.d.).

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DOI : <https://doi.org/10.17010/amcije/2021/v4i4/167523>

Definition of Micro, Small, and Medium Enterprises

Table 1 shows MSME Classification (2006) and Table 2 shows revised MSME Classification (2020).

Table 1. MSME Classification (2006)

Criteria - Investment in plant & machinery or equipment			
Classification	Micro	Small	Medium
Manufacturing Enterprise	Investment < ₹ 25 Lakhs	Investment < ₹ 5 cr.	Investment < ₹ 10 cr.
Service Enterprise	Investment < ₹ 10 Lakhs	Investment < ₹ 2 cr.	Investment < ₹ 5 cr.

Table 2. Revised MSME Classification (2020)

Criteria - Investment and Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing and	Investment < ₹ 1 cr. and	Investment < ₹ 10 cr. and	Investment < ₹ 50 cr.
Service Enterprise	Turnover < ₹ 5 cr.	Turnover < ₹ 50 cr.	and Turnover < ₹ 250 cr.

Source: (Ministry of Micro, Small & Medium Enterprises, n.d.)

The various industrial infrastructure development programmes for enterprises are industrial estate, mini-industrial estate, industrial area, industrial growth centre, Industrial Infrastructure Development Centre, industrial park etc. (Small Industrial Bank of India, n.d.). These programmes have been introduced for providing developed plots and constructed sheds for micro, small, and medium entrepreneur (SIDBI Report, 2002). The objectives of the industrial infrastructure programmes are to attract small scale entrepreneurs by facilitating infrastructural help such as developed plot, sheds, transportation, communication facility, water supply, adequate power supply, common amenities etc.

Review of literature

Nagaraja and Anitha (2018) studied the role of industrial infrastructure estates programmes in promotion of micro small and medium enterprises in Davangere Zone. It was found that the power supply was excellent in the estates and the quality of building was moderately in a good position. Other infrastructure such as railway connectivity and internal roads and transportation were found to be poor. The researcher concluded that government agencies played an important role in facilitating infrastructure for industrialization in the Indian economy.

Kar and Tripathy (2020) studied the role of family and passion for gen-next entrepreneurs. The decision outcome may not always support ambition of an entrepreneur. A case study was conducted on influence of family members on success of setting own venture and the study concluded that passion influenced entrepreneurial decision.

Bajpai and Srivastava (2014) studied the behavior of entrepreneurs and its impact on small and medium scale industries. The study revealed that age, business type, and experience influenced small and medium scale entrepreneurs and educational qualification did not make behavioral competency. The researcher suggested that the success of entrepreneurs' various researchers could formulate the policies on the basis of differences in behavioral competencies.

Selvaraj (2016) studied the role of industrial estates in enhancing performance of entrepreneurs in Southern districts of Tamil Nadu. It was found that better performing entrepreneurs perceived lack of innovation and high credit sales as big problems. Smaller problems for good performance were limited demand and lack of network. The researcher suggested that performance level of entrepreneurs could be increased by increasing managerial skill and by providing the necessary industrial infrastructure. It was observed that entrepreneur's background had little connection with success.

Charantimath (2014) studied the role of clusters in promoting MSMEs and the United Nations Industrial Development Organization's initiative for cluster development in India. The researcher found that cluster provides economies of scale for competitive advantage by promoting higher productivity.

Ogechukwu, Oboreh, Umukoro, and Uche (2013) studied the role of Nigerian government in historical development of small and medium enterprises. The researchers emphasized the importance of marketing for growth and survival of enterprises. The study also explored the importance of manpower development, provision for enactment of supportive laws, infrastructural facilities, and establishment of financial institution for survival of enterprises.

Tambunan (2009) observed variation of development of Small and Medium Enterprises with degree of development of economy of member country of ASEAN. The researcher studied foreign direct investment, export competitiveness, innovation, cluster, and supporting industries, and development of Small and Medium Enterprises in ASEAN countries. It was found that higher the per capita income, lower the share of Small Medium Enterprises in light manufacturing than heavy industries.

Many researchers have conducted various studies on small scale industry and its importance in the national economy. Though a number of studies have been undertaken on the working of industrial infrastructure and on the small industries problems, no study has been done on small scale industry under government sponsored industrial infrastructure in the state of Assam. The present study highlights the importance of industrial infrastructure for growth of small-scale entrepreneurs in Kamrup (metro) and Kamrup (rural).

Objectives

To identify the driving factors for entrepreneurship in MSME enterprises located in various industrial infrastructure spaces promoted by the government:

- ↳ Ambition factors (family background and innovation),
- ↳ Compelling factors (unemployment and risk taking) and
- ↳ Facilitating factors (government assistance and infrastructure facility)

The present research has identified these parameters from extended literature review, more specifically, Nagaraja and Anitha (2018); Ogechukwu, Oboreh, Umukoro, and Uche (2013); Selvaraj (2016) etc.

Research Questions

Following was the research query for the study:

Whether entrepreneurs are influenced by ambition factors, compelling factors, and facilitating factors to set up industries under industrial infrastructure?

Research Methodology

- ↳ **Area of the Study :** The study was conducted in Kamrup (metro) and Kamrup (rural) districts of Assam, as it has the highest number of factory sheds in the state.
- ↳ **Universe of the study :** The universe of the study was micro, small, and medium enterprises under industrial infrastructure of Kamrup (metro) and Kamrup (rural) districts.
- ↳ **Population size :** The population size of the universe was 318.
- ↳ **Sample size :** The researcher applied Taro Yamane formula and the size of the sample was :

Table 3. Table Showing Distribution of Areas

Industrial infrastructure	Total units functioning			
	Micro	Small	Medium	Population (No. of SSI)
Industrial Area, Rani	24	12	1	37
Industrial Area, Kalapahar	27	–	–	27
Industrial Growth Centre, Changsari	5	14	3	22
Industrial Growth Centre, Chaygaon	16	51	7	74
Integrated Infrastructure Development Centre, Rangia	5	13	–	18
Mini Industrial Estate, Kalapahar	35	1	–	36
Industrial Area, Bonda	11	22	5	38
Industrial Estate, Bamunimaidam	34	27	5	66
Total	157	140	21	318

$$n = N/1 + N^* (e)^2 = 318/1 + 318 * (0.05)^2 = 177.15 = 177 \text{ (after rounding)}$$

↳ **Sampling frame** : The list of micro small and medium enterprises was collected from Assam Industrial Infrastructure Development Corporation and Assam Statistical Handbook from 2014-15 to 2018-19. (Directorate of Economics and Statistics, 2017; Directorate of Economics and Statistics, 2018; Directorate of Economics and Statistics, 2019; Directorate of Economics and Statistics, 2020; Directorate of Economics and Statistics, n.d.).

↳ **Sampling technique** : The researcher applied stratified random sampling technique.

The sample has been chosen proportionally from the population.

$$\text{Micro} = 177/318 * 157 = 88 \text{ (after rounding)}$$

$$\text{Small} = 177/318 * 140 = 77 \text{ (after rounding)}$$

$$\text{Medium} = 177/318 * 21 = 12 \text{ (after rounding)}$$

Role of Assam Industrial Infrastructure Development Corporation in Promotion of Infrastructure

For orderly growth and development of industrial infrastructure in Assam, Assam Industrial Infrastructure Development Corporation was established in June 7, 1997 pursuant to the provision of Assam Industrial Infrastructure Development Corporation Act 1990. The corporation had been started with the objective of assisting establishment and management of enterprises under industrial infrastructure such as industrial estate, growth centre, industrial area, and mini-industrial estate etc. The mission of the corporation is to create industrial infrastructure and to maintain the quality of existing industrial infrastructure for betterment. The industrial infrastructure includes constructed sheds, developed plots, power supply, water supply, communication, and transportation facility, common utility services, security services etc. The corporation specially provides sheds and land at concessional rate on lease and rent, which is a major reason for setting up industries under the industrial infrastructure. There is a long time gap between development of sheds and allotment of sheds which has reduced efficacy. Assam Industrial Infrastructure Development Corporation should draft plan to reduce time gap as small-scale enterprises under industrial infrastructure are influenced by the infrastructure provided by it. Small scale units are manufacturing units and the ownership pattern is mainly sole trading followed by partnership. The number of industrial infrastructures has been

increasing in the last five years. Assam Industrial Infrastructure Development Corporation facilitates land development and construction of sheds at a lower rate but along with this infrastructure, entrepreneurs also need other infrastructure such as power, communication, transportation, raw materials, and common utility services at a subsidized rate. Availability of raw material is one of the most important factors for choosing location of units. Availability of raw material helps in optimum utilization of various resources. It was found that units must purchase raw materials of their own, in some cases units have to purchase from other states and countries as well. Industrial infrastructure has influenced entrepreneurs for setting up enterprises. The facility provided under industrial infrastructure has reduced the setting up cost for enterprises which is a major hindrance to growth of new entrepreneurs. The institution is performing the role of facilitator for industrial growth throughout the state. Assam Industrial Infrastructure Development Corporation has taken various programmes for development and maintenance of existing infrastructure for promotion of entrepreneurship and to attract investors for growth of industries. Raw material should be available at the right price and in the right quantity from the right sources. Assam Industrial Infrastructure Development Corporation should establish its own raw material depot in industrial infrastructure for procurement and distribution of raw materials. There should be proper warehouse for storage of goods in a proper manner. Emphasis should be laid on setting up of material testing center and quality control center so that units can manufacture quality products and need not face hassle in testing material and checking quality. Small entrepreneurs should be equipped with sound management principles and techniques. The organization or policy implementing agency should conduct Entrepreneurship Development Programme or cash and subsidized programmes for promoting small entrepreneurs for setting units.

Results and Discussion

Influencing factors to become entrepreneurs under industrial infrastructure in the Kamrup (metro) and Kamrup (rural) districts of Assam

Table 4. Variables Entered/ Removed ^a

Model	Variables Entered	Variables Removed	Method
1	1. Infrastructure Facility		Enter
	2. Innovation		
	3. Government Finance		
	4. Family Background		
	5. Risk Taking		
	6. Unemployment ^b		

a. Dependent Variable: Investment

b. Predictors: (Constant), infrastructure facility, innovation, government finance, family background, risk taking, unemployment

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.527 ^a	0.277	0.252	322.13104

a. Dependent Variable: Investment

b. Predictors: (Constant), infrastructure facility, innovation, government finance, family background, risk taking, unemployment

Table 6. ANOVA ^a

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6771335.696	6	1128555.949	10.876	0.000 ^b
	Residual	17640628.631	170	103768.404		
	Total	24411964.328	176			

Table 7. Coefficients ^a

Model		Unstandardized		Standardized		t	Sig.
		Coefficients		Coefficients			
		B	SE	Beta			
1	(Constant)	−54.878	158.450			−0.346	0.730
	Ambition Factors						
	Family Background (X ₁)	−1.177	21.452	−0.004		−0.055	0.956
	Innovation (X ₂)	9.197	23.630	0.027		0.389	0.698
	Compelling Factors						
	Unemployment (X ₃)	59.620	25.073	0.200		2.378	0.019
	Risk Taking (X ₄)	−14.841	20.478	−0.049		−0.725	0.470
	Facilitating factors						
	Government Assistance (X ₅)	158.834	23.385	0.455		6.792	0.000
	Infrastructure Facility (X ₆)	−62.826	24.601	−0.168		−2.554	0.012

a. Dependent Variable: Investment (Y).

b. B represents change in the outcome (Investment) resulting from a unit change in the predictor.

Regression Equation:

$$\text{Investment (Y)} = -54.878 - 1.177X_1 + 9.197X_2 + 59.620X_3 - 14.841X_4 + 158.834X_5 - 62.826X_6$$

Interpretation

Since *R*, that is, Correlation value is 0.527, there is positive correlation between the independent variables and dependent variables. Adjusted *R Square* shows that 25.20% variation in dependent variable (investment) is explained by given independent variables (infrastructure facility, innovation, government finance, family background, risk taking, unemployment). Again in ANOVA table, the significance level is 0.000 which is less than 0.05. Thus, we can conclude that the overall model is fit.

Arranging the independent variables in the order of highest to lowest level of influence on dependent variable, that is, investment:

☞ Since, *t*-value (6.792) for the variable, government assistance was the highest among all, it has highest influence on the amount of investment. It has positive relationship with the amount of investment. The relationship is significant because significance value was less than 0.05, that is, $0.000 < 0.05$. The reason is that now-a-days government is coming up with various policies like Start up India etc. which encourages entrepreneurs among people and it also enhances the amount of investment made.

☞ The second important variable, unemployment, having *t*-value 2.278 has positive relationship with the amount of investment. The relationship is significant because significance value was less than 0.05, that is, $0.019 < 0.05$. The reason may be that due to unemployment increasing in India, people are having no option but to involve in creation of innovative ideas and enter the field of entrepreneurship.

☞ The third important variable, innovation having *t*-value 0.389 has positive relationship with the amount of

investment but the relationship is not significant because significance value was more than 0.05, that is, $0.698 > 0.05$. The reason is that although innovation indirectly leads a person to become an entrepreneur, all entrepreneurs do not need to be innovative.

✎ The fourth important variable, family background having t -value -0.055 has negative relationship with the amount of investment. The relationship is not significant because significance value was more than 0.05, that is, $0.956 > 0.05$. The reason is that people who have entrepreneurs in their family tend to invest less in short run because they already have some experience in the field of investment but the relation is not significant because such people are more enthusiastic as compared to others who invest in long term if business goes well.

✎ The fifth important variable having t -value -0.725 is risk taking that has negative relationship with the amount of investment. The relationship is not significant because significance value was more than 0.05, that is, $0.470 > 0.05$. The reason is that people invest in less risky projects at the starting time, but the same relation does not always hold true because in the long run people try to invest more in risky projects to earn huge amount of investment.

✎ The variable having t -value -2.554 is the lowest influencer, that is, infrastructure facility has negative relationship with the amount of investment. The relationship is significant because significance value was less than 0.05, that is, $0.012 < 0.05$. The reason is that weak infrastructure prevailing in Assam does not encourage people much to enter into the field of entrepreneurship. This factor is significant because if it is given importance in the near future, it can act as an accelerating factor in the field of entrepreneurship.

Overall, the facilitating factors (government assistance & infrastructure facility) have significant influence over entrepreneurs followed by compelling factors (unemployment), whereas ambition factors (family background & innovation) do not have such significant role.

Implications

The study was based on MSMEs. The government should promote more MSME entrepreneurs. It should take some measures to take into account the factors which influence entrepreneurs to come forward and work on them to provide better growth opportunities for MSMEs. On the basis of satisfaction of entrepreneurs, the government can turn the negative impact into positive one. In a nutshell, MSMEs can be the growth engine for the development of the nation.

Conclusion

Micro, small, and medium enterprises play an important role in development of industry for developing the economy. There is a direct relationship between growth of micro, small, medium enterprises, and infrastructure. Assam Industrial Infrastructure Development Corporation is playing the role of incubator by developing infrastructure for entrepreneurs for continuous growth and prosperity. The units under industrial infrastructure can be more efficient and have better performance though there is demand for industrial infrastructure as it is providing infrastructure at concessional and lower costs. Entrepreneurs are having problems of lack of credit facility, managerial ability, skilled labor etc. (Sarkar, 2016). Government should emphasize on proper drafting of plans for more prosperity. Red tapism and lack of personal interest in the administration must be changed for reducing dissatisfied among entrepreneurs. There should be proper interaction among multi-dimensional agencies like Warehousing Corporation, Water Board, Assam Power Distribution Company Limited, District Industry Centre, and Assam Small Industries Development Corporation Limited etc. for generating growth.

Limitations

The study suffers from the following limitations:

- (1) The study may lack in respect of respondents' biased responses. Since the data were collected from the respondents through questionnaire, there may be some responses filled by them.
- (2) The study was limited to only the districts of Kamrup metro and Kamrup rural.
- (3) The study was limited to only the entrepreneurs under government sponsored industrial infrastructure.

Scope for Further Research

Studies can be conducted all over Assam in all government sponsored industrial infrastructures. For this purpose, other factors which influence entrepreneurs can also be taken into account. Apart from this, more studies can be conducted on the comparison between entrepreneurs within industrial infrastructure and outside industrial infrastructure.

Authors' Contribution

Both the authors had been actively involved in the presented work. Dr. Tilak Chandra Das worked on reviewing literature and worked on the data. Daisy Das processed the data and presented it with proper statistical technique. Both the authors worked on references and they worked synergistically to bring the desired outcome.

Funding Acknowledgement

The authors received no financial support for the research, authorship and /or for the publication of the paper.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in the manuscript.

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