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## **AN EMPIRICAL ANALYSIS OF THE PERSONALITY & CHARACTER- VISAKHAPATNAM INFORMATION TECHNOLOGY SECTOR**

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### **INTRODUCTION**

Visakhapatnam is currently ranked as the second largest urban agglomeration in Andhra Pradesh. Visakhapatnam has experienced high growth in population and the same trend is expected to continue over the next two decades. It is projected that by 2021 Visakhapatnam would emerge as one of the major cities in the country. Economic liberalization in the 1990's has brought modest growth to the city, but not as much as it did to Hyderabad. However many industries sprang up both in public sector units as well as in private sector units. The newly sanctioned SEZ's, IT park, Pharma park, Apparel park, Bio park etc are changing the face of the city from a small fishing village into a hub of myriad sectors and thereby creating ample employment opportunities.

The government of Andhra Pradesh has recently made a landmark decision to grant essential service status to the Visakhapatnam IT industry in the anticipation that it will draw more investments. Now all the software, IT services and IT-enabled services are treated as essential service under the AP Essential Services Maintenance Act, 1971(Act No.20 of 1971). Most IT companies who commenced their operations in India in Tier I cities have subsequently expanded their operations to Tier II cities. Tier II and Tier III cities are gaining importance in the IT/ITES Industry since they offer substantial savings in administration, maintenance, real estate, infrastructural costs and human resource availability.

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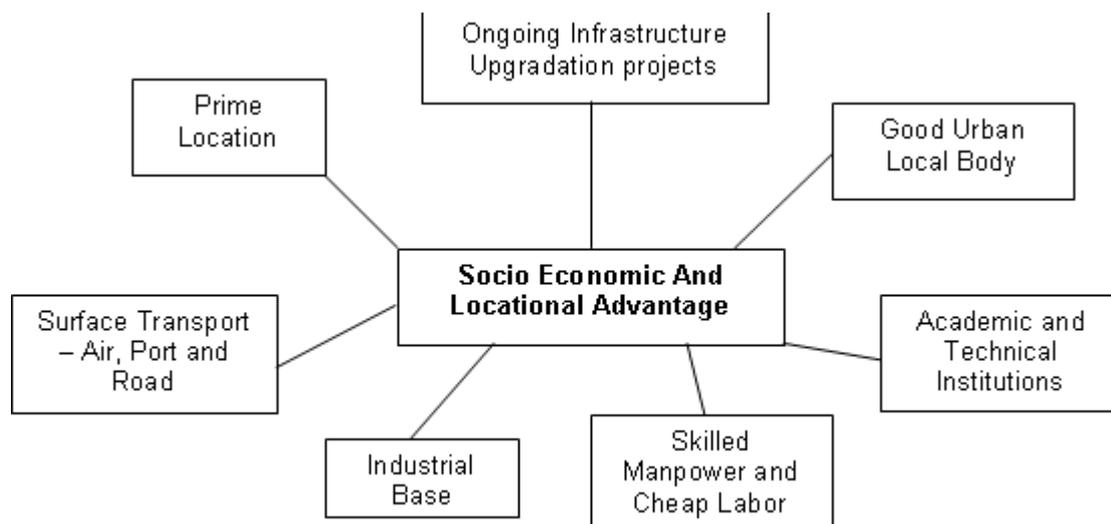
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The strategic changes in the environment and increase of entrepreneurship coupled with the LPG effect have made Visakhapatnam the alternative IT destination. There are certain facets that have given the city its competitive advantage. Some of them are: It has a rich environment marked by the presence of industries such as steel, chemicals, and petrochemicals among others.

Figure 1: Advantage Visakhapatnam



- In terms of cost of operation, Visakhapatnam has 35% cost advantage over the average cost of leader locations.
- The city has a stable political and legal frame work.
- Around 20,000 graduates pass out each year and more than half are employed by the IT-ITES industry
- Large pool of English speaking population
- Availability of skilled labor at relatively lower cost
- Telecom, power and the other major imperatives for the IT industry are also available in adequate measure, while social, education, medical and living environment is satisfactory.
- Despite the movement of large number of students to Hyderabad, the large IT players are witnessing an inward migration of people.
- Government has allocated six locations for developing IT SEZ's and expansion of IT parks is also in the pipeline.



The City having an investment of Rs. 20,000 Crores is the industrial capital of the State. The City is recognised as the fifth-fastest growing "Industrial Metropolis" in the Asian subcontinent and the fastest growing industrial city on the East coast of India strategically located midway between Calcutta and Chennai. The state as well the city government have made concerted efforts to make Visakhapatnam the second economic development hub in the areas of Information Technology Enabled Services, Pharma and Biotechnology, development of Consumer goods and Ancillary industries/Tourism after Hyderabad. Significant efforts are being executed in this direction

### **RESEARCH METHODOLOGY**

This is a qualitative empirical study of the Indian industry Sector, executed through a field study in the city of Visakhapatnam. The Visakhapatnam Information Technology sector consists mostly of small and medium sized companies with scanty presence of MNC giants. Small and medium firms are an important component of any major economy. (Bernoider, 2002) For instance in the Organizations for Economic Corporation and Development (OECD) countries small firms (along with medium sized firms) constitute for 95% of the enterprise and account for 60% to 70% of the jobs (Bernoider 2002). Typically small firms play a supportive role but in the Information Technology sector they are able to compete with larger firms by innovatively adapting to rapid technological changes and by meeting demands of niche markets. In total there are 70 companies operating within the Visakhapatnam Information Technology Sector. The Information Technology corporations are located in clusters within the city. Andhra Pradesh Industrial Infrastructural Corporation has set up an Information Technology Park at Rushikond & Ghambirum in Visakhapatnam with a total of around 40+ Information Technology corporations in its Information Technology Special Economic Zone. Duvvada Visakhapatnam Special Economic Zone is a Multi Sectoral Zone which has around 15+ operational Information Technology/ Information Technology Enabled Services corporations & around 8+ Information Technology/ Information Technology Enabled Services corporations are planning to set up offices. The other Information Technology /Information Technology Enabled Services SME cluster is spread within the city with two major Information Technology MNC- Mahindra Satyam & Wipro located at cross roads of VIP road & NH-5. Some of the other Information Technology



corporations are located in Dwarakanagar, Siripuram, Beach road and Sethamdhara. For an accurate study 50% of the population was taken as sample.

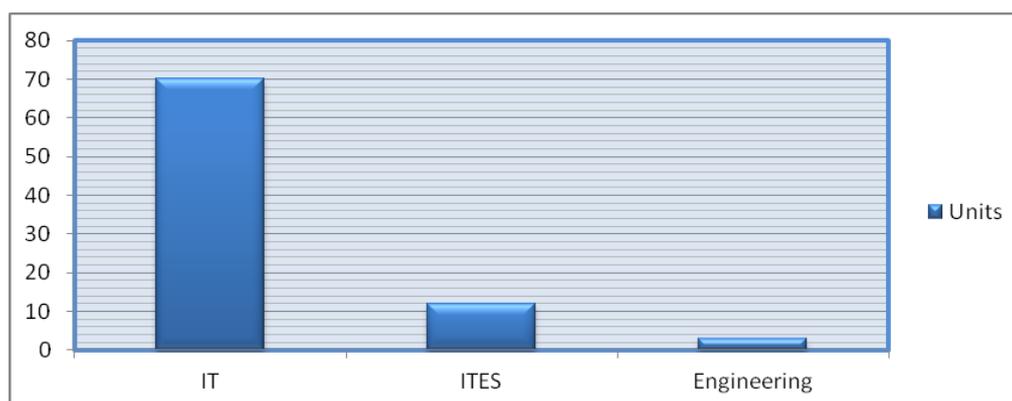
The data required for the research was collected through primary and secondary sources of information. The population of Information Technology corporations in Visakhapatnam is 70. In order to get an accurate representative 50% of the population i.e. 35 corporations were selected. The sample selected was 35 Information Technology corporations. The evaluation tool selected for the collection of primary data was Questionnaire method. In comparison to other methods the questionnaire method was preferred as it is cost effective and the response is standardized.

Since the population is small therefore most appropriate sampling technique would be simple random sampling technique as it is cheap, simple and ensures bias is not introduced. Through this method large number of issues can addressed in a relatively effective way with the possibility of a high response rate.

## EMPIRICAL ANALYSIS OF INFORMATION TECHNOLOGY SECTOR

The Visakhapatnam IT sector consists of 105 corporations but only 85 of them are officially registered. Out of those 85 corporations there are 70 IT corporations, 12 ITES firms and 3 engineering firms. For accurate and precise conclusions 50% of the 70 IT corporations were taken as the sample. An analysis of 35 IT corporations was undertaken with aim to understand the various facets of the IT corporations. In order to arrive a conclusive and accurate data questionnaire method was selected for primary data collection. The statistical tool used to analyze the data was frequency tables and the responses were evaluated on a five point scale of no extent to very large extent.

Figure 2: Software Units in Visakhapatnam

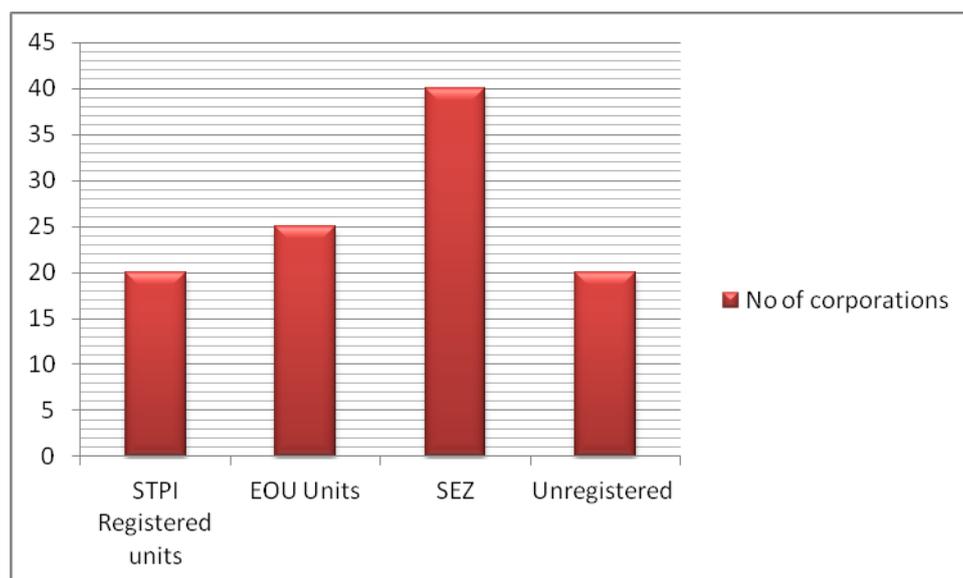


Source: Compiled by author by interaction with the concerned authorities.



The objective of this chart is to understand the Broad classification of the Visakhapatnam Software Sector into IT, ITES (including BPO, Medical Transcription and animation) and Engineering services. It can be observed that Visakhapatnam Software Sector consists of total 85. Out of these 85 corporations there are 70 IT companies, 8 BPO corporations, 4 Medical Transcription firms and 3 Engineering Services firms. It can be observed that 82% of the corporations are primarily registered as Information technology corporations, the next highest in the sector are BPO corporations who constitute 9% of the sector. Considerably small in number are the Medical transcription and Engineering services companies who constitute 5% and 4% respectively. From the above given data it can be inferred that a majority of the software sector is inclined towards providing Information technology services to the clients. Despite the increase in outsourcing and destination cost effectiveness, the city was only able to attract few BPO companies to open shop. It is evident that medical transcription and engineering services are still in the nascent stage and be ranked high in terms of market attractiveness as they are still very few in number.

Figure 3: Classification of IT Corporations



Source: Compiled by author by interaction with the above said authorities.

The objective of the above chart is to understand the registration pattern of the corporations within the Software Sector of Visakhapatnam. It is observed that there are 20 units registered with STPI, 25 units as EOU and 40 units are registered with SEZ. Another aspect that has come to light is that there are still approximately 20 units that are



unregistered. The STPI authorities are now challenged with the task to identify and channelize these corporations into the mainstream of Visakhapatnam Software Sector.

According to this chart it is evident that 38% of the companies are registered with SEZ, 24% of the remaining are registered as Export Oriented Organization and 19 % of the firms are registered under STPI and finally 19% of the corporations in the Visakhapatnam Software Sector are still not registered with any authority.

Table 1: Number of Companies - 1994 To 2008

Year of establishment	Frequency	Percentage
		%
1994	4	6
1996	2	3
1997	2	3
1998	4	6
1999	8	11
2000	4	6
2001	6	8
2002	6	8
2003	4	6
2004	4	6
2005	2	3
2006	6	9
2007	10	14
2008	8	11
<b>Total</b>	<b>70</b>	<b>100</b>

An analysis of this table helps us to understand the number of IT corporations formulated during the period of study. It evaluates the number of companies incorporated in each year so as to establish the growth rate in terms of number of companies. It is observed that 6% in 1994 another 3% in 1996, 3% in 1997, 6% more in 1998, 11% in 1999, 6% in 2000, 8% in 2001, 3% of the companies were formulated in 2005, 8% more in 2002, 6 % in 2003, 6% in 2004, 9% in 2006, 14% in 2004 and 11% in 2008. By looking at the above table it can be inferred that on an average there has been a growth rate of 7% in the number of corporations established under the period of study. It can be implied that there is an increase in the number of companies from the latter half of this century.



Table 2: Premises Ownership Structure

Particulars	Frequency	Percentage
		%
<b>Owned by proprietor</b>	10	15
<b>Rent</b>	36	51
<b>Lease</b>	22	31
<b>Home based Premises</b>	Nil	Nil
<b>Owned by partners</b>	2	3
<b>Total</b>	<b>70</b>	<b>100</b>

The objective of this question is to probe into the pattern of ownership of the property/premises of the corporations. This guides us in understanding overhead structure. It is observed that 15% of the corporation's property is proprietary owned, 51% of the corporations have rented the premises, 31% have taken the premises on lease and 3% of the corporations properties are jointly owned by partners. It is also observed that the Visakhapatnam IT sector does not have home based premises. Since 51% of the IT corporations have opted to rent the premises for the operations it can be inferred that the corporations want to keep their exit option easily available in comparison to purchasing the building as it is binding on the corporation.

Table 3: Presence in Other Indian Cities

Presence in cities	Frequency	Percentage
<b>Yes</b>	30	43
<b>No</b>	40	57
<b>Total</b>	<b>70</b>	<b>100</b>

The objective of this question is to understand whether the corporations have offices in other parts of India or not. It is to be noted that only 28 out of 70 Information Technology Corporations have corporate offices in other cities. It can be observed that 15% of the corporations have offices in other cities in India and 20% of them do not have operations in more than one city in India. It can be inferred that a majority of the corporations do not have offices in other cities, which implies that they have not adopted market expansion strategy.



Table 4: Location of Corporate Branches

Name of cities	Frequency	Percentage
Mumbai	4	14
Hyderabad	14	48
Kakinada	2	6
Delhi	2	6
Chennai	4	14
Bangalore	2	6
<b>Total</b>	<b>28</b>	<b>100</b>

The objective of this question is to understand which city has been selected by the corporations to open another office. It is observed that 14% corporations have offices in Mumbai, 48% have offices in Hyderabad, 6% have offices in Kakinada, an equal 6% have offices in Delhi, 14% have offices in Chennai and another 6% have offices in Bangalore. From the above analysis it can be deduced that nearly half the corporations have preferred to open their office in Hyderabad in comparison to other metropolitan cities.

Table 5: Corporations Global Presence

Presence in cities	Frequency	Percentage
Yes	24	34
No	46	66
<b>Total</b>	<b>70</b>	<b>100</b>

This objective of this question is to understand whether the corporations have any offices in other parts of the world. From this table we can observe that only 34% of the corporations have offices in other countries and more than half of them that is 66% of the companies do not have any global presence. It can thus be inferred that most of the corporations are conducting their IT practices/business without actual presence in overseas destinations.

Table 6: Corporations Global Destinations

Name of cities	Frequency	Percentage
U.S.A	24	32
Europe	40	54
Africa	6	8
South East Asia	2	3
<b>Total</b>	<b>70</b>	<b>100</b>



The objective of this question is to understand which countries; Visakhapatnam IT corporations have their offices in. It can be observed from this table that 32% of the companies have offices in USA, 54% of the corporations have offices in Europe, 8% of the corporations have office in Africa and 3% have offices in South East Asia. Since most of the corporations are located in Europe, it indicates that there is a shift from USA to other alternative markets.

Table 7: Working Hours per Week

No. of hours	Frequency	Percentage
40	50	71
42	2	3
45	12	17
48	4	6
54	2	3
<b>Total</b>	<b>70</b>	<b>100</b>

This question attempts to estimate the working hours of Visakhapatnam IT sector.

It is observed that 71% of the corporations work 40 hours a week, 3% work 42 hours, 17% work 45 hours, 6% work 48 hours and 3% of the corporations work for 52 hours a week.

It can be inferred Visakhapatnam also functions like other IT sectors in terms of working hours that is it works for 5 days 8 a day with a two day weekend.

Table 8: Product Portfolio

Service	Engineering		BPO		KPO		IT		Animation		Medical transcription	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>YES</b>	10	15	14	20	8	12	70	100	2	3	2	3
<b>NO</b>	60	85	56	80	62	88	Nil	0	68	97	68	97
<b>Total</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>

An analysis of this table gives us an insight into the product portfolio of the IT sector Corporations.

From the above table it can be observed that out of 35 respondents 15% have agreed to have engineering as a product & 85% claim that they do not provide engineering services. For BPO services, 20% claim to have BPO operations and majority of 80% state that they do not provide BPO services. For KPO service, 12% state that they provide this service to their clients where as 88% of the respondents state that they do not provide this service to their



clients. For Information technology services, it is observed that 100% of the respondents have accepted that they render/provide IT services to their clients. For Animation service 3% of the corporations claim to have this service on their portfolio and for Medical transcription 3% are providing this service and 97% of the corporations are not engaged in this service. The above analysis implies that the typical product/service portfolio of IT corporations of Visakhapatnam consists of IT, BPO & Engineering services. It can also be inferred that not many corporations have adopted expansion of product portfolio into Animation and medical transcription services.

Table 9: Revenue Break Up

Response	Engineering		BPO		KPO		IT		Animation	
	F	%	F	%	F	%	F	%	F	%
YES	4	6	6	9	4	6	66	94	2	3
NO	66	94	64	91	66	94	4	6	68	97
<b>Total</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>

The objective of this statement is to understand which product/service of the service portfolio largely contributes to revenue generation.

From the above table we can observe that for engineering services 6% claim that it contributes largely to revenue whereas 94% state that it does not largely contribute to revenue. For BPO Services, 9% claim that it contributes to revenue and 91% claim that it does not contribute largely to revenue. For KPO Services 6% claim that it largely contributes to revenue whereas 94% claim that it does not largely contribute to revenue generation. For IT Services 94% claim that it largely contributes to revenue & 6% claim it does not largely contribute to revenue. For Animation Services only 3% claim that it contributes largely to revenue generation whereas a majority of 97% claim that this service does not largely contribute to revenue generation. The above analysis implies that most of the revenue generation is primarily from Information Technology services offered by the IT corporations, the remaining services like BPO/KPO/Animation/Engineering are only negligibly contribute towards to revenue generation.

Table 10: Registration with Statutory Authority

Authority	Frequency	Percentage
STPI	38	55
SEZ	32	45
<b>Total</b>	<b>70</b>	<b>100</b>



The objective of this statement is to understand the government authority under which the IT corporations have sought registration. From the table it can be observed that 55% of the corporations are registered with Software Technology Parks of India and 45% are registered with Special Economic Zone. It can be deduced that Software Technology Parks of India is the leading authority for the Information Technology Sector of Visakhapatnam. STPI has played a prominent role in establishment and development of Visakhapatnam IT sector.

Table 11: IT Corporations Turnover

Turnover Cr.	Frequency	Percentage
1-5	22	32
5-10	24	34
10-20	20	28
100-200	2	3
>200	2	3
<b>Total</b>	<b>70</b>	<b>100</b>

The objective of this statement is to understand the turnover of the IT corporations. From the table it is observed that 32% of the corporations have a turnover between one to five Crores, 34% of them have a turnover between five to ten crores, 28% of the corporations have a turnover of ten to twenty crores, only 3% of them have a turnover between 100-200 crores and another 3% of the IT corporations have a turnover greater than 200 crores. It can thus be inferred that most of the IT Corporations belong to medium cap category with a turnover range of five to ten crores.

Table 12: Association with Professional Bodies

Response	NASSCOM		CII		VITA		OTHERS	
	F	%	F	%	F	%	F	%
<b>YES</b>	48	69	18	26	54	77	4	6
<b>NO</b>	22	31	52	74	16	23	66	94
<b>Total</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>

It is observed that in the case of NASSOM 69% of the corporations claim to be associated to with it, where as 31% state that they are not associated with NASSCOM. In the case Confederation of Indian Industries the respondents state that only 26 % of them are associated with CII where as 74% claim that they are not associated with CII. In the case of Visakhapatnam Information Technology Association 94% of the respondents state that they are member of VITA where as 6% state that they are not associated with VITA. In the other category also only 3% agree that they are associated with other professional bodies where



as a larger percentage which is 94% state that they are not associated with any other professional body. From this it can be inferred that most organizations are showing preference towards Local professional associations.

Table 13: Number of Employee

No. of employees	Frequency	Percentage
<=10	6	8
11-20	8	12
21-30	14	20
31-40	8	12
41-50	6	8
51-60	4	6
61-70	6	8
71-80	2	3
81-90	0	Nil
91-100	2	3
101-200	6	8
200-300	Nil	Nil
301-400	4	6
>400	4	6
<b>Total</b>	<b>70</b>	<b>100</b>

It is observed that 8% of the corporations have less than 10 people employed, 12% of the corporations have 11 to 20 employees, 20% of the corporations have 21-30 employees, 12% have 31-40 employees, 8% of the corporations have 41-50 employees, 6% have 51-60 employees, 8% have 61-70 employees, 3% of the corporations have 71-80 employees, another 3% have 91-100 employees, 8% of the corporations have 101-200 employees, 6% of the corporations have 301-400 employees and another 6% of the corporations have more than 400 employees. It can be inferred that though the most of the IT corporations are small scale enterprise with below 100 employees.

Table 14: Employees Department Wise

Function	Finance		HR		Marketing		R&D	
	F	%	F	%	F	%	F	%
1	46	66	50	71	36	52	4	6
2	12	17	10	14	14	20	2	3
3	4	5	2	3	6	8	-	-
4	2	3	2	3	2	3	-	-
5	4	6	4	6	2	3	-	-
6	-	-	2	3	-	-	-	-
7	-	-	-	-	-	-	-	-
8	2	3	-	-	6	8	6	8



<b>10</b>	-	-	-	-	4	6	4	6
<b>25</b>	-	-	-	-	-	-	2	3
<b>100</b>	-	-	-	-	-	-	2	3
<b>Nil</b>	-	-	-	-	-	-	50	71
<b>Total</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>	<b>70</b>	<b>100</b>

The objective of this analysis is to understand the employee break up function/department wise. From this table it can be understood that in the finance department 66% of the corporations have one employee, 17% of the corporations have two employees, 5% of the corporations have three employees, 6% of the companies have five employees and 3% of the corporations have 8 employees.

In the HR department 71% of the corporations have one employee, 14% of the companies have two employees, 3% of the corporations have four employees, 6% of the companies have five employees and 3% of the corporations have six employees working in the HR department.

In the marketing department, 52% of the companies have one employee, 20% of the corporations have two employees, 8% of the corporations have three employees, 3% of the corporations have four employees, 3% of the companies have five employees, 8% of the companies have eight employees and 6% of the corporations have ten employees.

In the Research & Development department, 6% of the companies have one employee, 3% have two employees, 8% have eight employees, 6% have ten employees, 3% of them have 25 employees, 3% of the companies have 100 employees and 71% of the corporations have no R&D personnel.

From the above detailed analysis it can be deduced that a typical IT Sector corporation has one finance, one HR, one Marketing and R&D personnel.

Table 15: Number of Programmers/Developers

<b>No. of employees</b>	<b>Frequency</b>	<b>Percentage</b>
<b>1-25</b>	32	46
<b>26-50</b>	14	20
<b>51-75</b>	10	14
<b>76-100</b>	-	-
<b>101-200</b>	10	14
<b>201-300</b>	2	3
<b>301-400</b>	-	-
<b>401-500</b>	2	3
<b>Total</b>	<b>70</b>	<b>100</b>



The aim of this table is to explain the number of developers/programmers/coders employed by IT corporations. From the above table we can observe that 46% of corporations have employed fifteen programmers, 20% have employed seven programmers, 14% of the IT corporations have employed 51-75 programmers, another 14% have employed 101-200 employees, 3% have employed 201-300 employees and 3% more have employed just one developer. It can thus be implied that generally speaking corporations have one to twenty five developers/programmers with a minimum of one and a maximum of above four hundred employees.

Table 16: Corporation Clientele

Client Response	Government		Public Sector		Private sector		Foreign Governme nt		Foreign Public		Foreign Private	
	F	%	F	%	F	%	F	%	F	%	F	%
<b>No extent</b>	24	40	32	46	14	20	50	71	42	60	10	14
<b>Small extent</b>	22	31	24	34	4	6	12	17	22	31	Nil	Nil
<b>Moderate extent</b>	10	14	10	14	4	6	2	3	6	9	6	9
<b>Large extent</b>	4	6	4	6	24	34	4	6	Nil	Nil	14	20
<b>Very large extent</b>	6	9	Nil	Nil	24	34	2	3	Nil	Nil	40	57
<b>Total</b>	70	100	70	100	70	100	70	100	70	100	70	100

The objective of the above table is to understand the source of revenue generation for Visakhapatnam IT Sector.

From the above table it can be observed that in the case of government, 40% state that it does not contribute to their revenue, 31% state that it only contributes to a small extent, 14% claim that it contributes moderately to revenue generation, 6% claim that it contributes to a large extent to revenue generation and 9% of them claim that it contributes very largely to revenue generation.

In the case of public sector, 46% of the corporations state that there is no contribution from public sector to their revenue, 34% state that it contributes to a small extent, 14% state that it moderately contributes, 6% state that it contributes largely towards revenue generation.

In the case of private sector 20% of the corporation's state that there is no contribution from private sector, 6% state that there it contributes to a small extent, 34% state that it moderately to revenue generation and another 34% state that it contributes very largely to revenue generation. In the case of foreign government, 71% of the corporations state that



there is no contribution towards revenue generation, 17% state that it contributes to a small extent only, 3% state that it contributes moderately towards revenue generation, 6% state that it contributes largely towards revenue generation and 3% state that it contributes very largely towards revenue generation.

In the case foreign private sector, 14% state that it does not contribute at all, 9% state that it moderately contributes towards revenue generation, 20% state that it largely contributes to revenue generation and 57% state that it very largely contributes towards revenue generation.

From this it can be implied that the source of revenue comes mainly from foreign private sector and private sector to a very large extent. Government clientele is moderately present.

Table 17: List of Support Services

Services	Telecommuni- cation		Electricity		Road connectiv- ity		Airways		Banking facilities		Land	
	F	%	F	%	F	%	F	%	F	%	F	%
No extent	0	0	0	0	1	3	0	0	0	0	0	0
Small extent	6	17	4	12	6	17	8	22	8	23	17	49
Moderate extent	4	12	7	20	15	43	7	20	10	29	6	17
Large extent	12	34	10	28	7	20	10	29	12	34	6	17
Very large extent	13	37	14	40	6	17	10	29	5	14	6	17
<b>Total</b>	35	100	35	100	35	100	35	100	35	100	35	100

The objective of this question is to understand the support services required by the Visakhapatnam IT Sector.

From the above table it can be observed in the case of telecommunications 17% of the companies felt it is required only to a small extent, 12% of them state that it is required to a moderate extent, 34% of the respondents state that it is required to large extent, 37% of the respondents feel it is required to a very large extent. In the case of electricity 12% of the respondent's state that it is required only to small extent, 20% state that it is required to a moderate extent, 28% state that it is required to a large extent and 40% claim that it is required to a very large extent. In the case of road connectivity, 3% of them feel it is not required at all, 17% state that it is required to a small extent, 43% state that it is required to a moderate extent, 20% state that it is required to a large extent and 17% of them claim



that it is required to a very large extent. In the case of airways 22% state that it is required to a small extent, 20% claim it is required to a moderate extent, 29% claim it is required to large extent and 29% of them feel that it is required to a very large extent. In the case of banking facilities, 23% state that this facility is required to a small extent, 29% state that it is required to a moderate extent, 34% claim that it is required to a large extent and only 14% of them state that this facility is required by the industry to a very large extent. In the case of land, 49% feel that it is required only to a small extent, 17% of them state that it is required to a moderate extent; again 17% state that it is required to a large extent and finally another 17% state that it is required to a very large extent. It can be inferred from the analysis that the support services required by the Visakhapatnam IT sector are electricity, telecommunications and airways.

Table 18: Entrepreneurial Profile

<b>PARTICULARS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>First generation male</b>	34	97
<b>Second generation male</b>	1	3
<b>Total</b>	35	100

The objective of this analysis is to understand the proportion of male and female entrepreneurs and also evaluate if the corporation heads are first generation entrepreneurs or whether they already hail from a business oriented family. From the above table we can observe that there are no women entrepreneurs in the Visakhapatnam IT Sector, 97% of the entrepreneurs are first generation entrepreneurs and only 3% are second generation entrepreneurs. It can be inferred that the IT Industry of the City of Visakhapatnam is a store house fresh young blood entrepreneurs who are risk takers despite of the fact that they do not belong to an entrepreneurial back ground

Table 19: Category of Registration

<b>PARTICULARS</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
<b>Sole proprietorship</b>	5	14
<b>Partnership</b>	3	9
<b>Private limited company</b>	25	71
<b>Public limited company</b>	2	6

The above analysis helps us to understand the type of establishment selected by the entrepreneurs.



From the above table it is observed that 14% of IT corporations are registered as sole proprietorship's , 9% of them are registered as partnership,71% of them are established as private limited corporations and only a small percentage of them namely 6% are registered as public limited company.

From the above analysis we can infer that a majority of the IT sector of Visakhapatnam has private limited companies and sole proprietors to a medium extent. There is scanty presence of public sector companies in this Industry.

Table 20: Number of Board of Directors

NUMBER OF BOARD MEMBERS	FREQUENCY	PERCENTAGE
No board members	2	6
One	1	3
Two	12	34
Three	4	11
Four	6	17
Five	7	20
Six	1	3
Seven	2	6

This statement provides an insight into total number of Board of Directors.

It can be observed that 6% of the corporations do not have any board members, 3% have one director, 34% of them have two directors, 11% of them have three directors, 17% of them have four directors, 20% of them have five board members, and 3% of them have six directors and 6% of them seven directors.

In can be inferred that there is no fixed norm with regard to the number of board members, the corporations are varying from no directors to as many as seven directors. It can be concluded that the most commonly followed pattern is that most IT corporations have two, four or six board members.

Table 21: Composition of the Board of Directors

COMPOSITION OF BOARD MEMBER					
PERMANENT MEMBERS			ROTATIONALMEMBER		
Number	Frequency	Percentage	Number	Frequency	Percentage
NIL	2	6	NIL	26	74
ONE	1	3	ONE	4	11
TWO	13	37	TWO	3	9
THREE	7	20	THREE	2	6



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<b>FOUR</b>	7	20	-	-	-
<b>FIVE</b>	4	11	-	-	-
<b>SEVEN</b>	1	3	-	-	-

It can be observed that there are two categories of member, permanent and rotational directors. Permanent members: 6% of the Boards have no permanent directors, 3% have one director, 37% have two directors, 20% have three directors, another 20% have four directors, and 11% of them have five directors and 3% of them seven directors.

Rotational members: 74% of them no rotational members, 11% have one director, 9% have two directors and 6% have three rotational directors.

From the above information it can be inferred that most of the IT corporations have mostly two to four board members. The composition of the board mostly consists of permanent members with only few corporations having one rotational member.

## INFERENCES

- The Visakhapatnam software Sector consists of +105 corporations. Around 85 corporations are registered. The sector comprises of 70 Information Technology companies, 12 Information Technology Enabled Services corporations and 3 engineering corporations. Most of the Information Technology companies are private limited companies.
- The Information Technology has 20 units registered with Software Technology Parks of India, 25 units as Export Oriented Units, 40 units are registered with Special Economic Zone.
- Approximately around 20 units are still not registered.
- Most of the Information Technology companies are private limited companies.
- Most of Information Technology entrepreneurs are from non-business background.
- The composition of the board consists of permanent members.
- No fixed norm with respect to the number of board of directors is followed.
- The working hours of a typical Information Technology firm is 5 days a week 8 hours a day.
- Most of the Information Technology companies have below 100 employees.
- The Information Technology corporations operate with less salary overhead as they employ generally one employee for core functions.



- Developer/programmers make up bulk of the corporation employees.
- It has been seen that Visakhapatnam Information Technology sector has a growth rate of 7 % per annum.
- Most of the Information Technology corporations operations are carried out from rented premises.
- Most of the Information Technology corporations are single offices without any branch/division in any Indian city.
- Only small percentage of the corporations is operating with offices located in Hyderabad.
- It is evident that most are operating without any global offices.
- The few that do have global presence are operating from Europe.
- The typical service portfolio of an Information Technology firm consists of Information Technology, Business Process Outsourcing & Engineering services.
- The lion share of revenue is being generated by Information Technology services.
- The source of revenue for Information Technology sector is from foreign private sector and Indian private sector.
- Information Technology corporations mainly belong to mid-cap enterprises with an average turnover between five to twenty crores.
- Most of the Information Technology corporations are members of local professional bodies in comparison to national associations.
- The Information Technology community is interested in the following support services which are mainly telecommunications, electricity and airways.
- It is observed that all the corporations have unanimously accepted that the business type has been constant for their corporations since the time of inception. It can thus be inferred that despite environmental changes the ownership structure has not witnessed any dramatic changes.
- It has also been observed that out of the 35 Information Technology corporations analyzed 34 entrepreneurs belong to Indian nationality and only one entrepreneur is an American Citizen. Thus it can be confirmed that the Information Technology sector of Visakhapatnam is dominated by Indian nationals.



## **DISCUSSION**

The Visakhapatnam Information Technology sector consists of 70 mid cap private corporations with an average turnover of 5-20 crores. These corporations are operating with around 100 employees with a typical product portfolio of IT/BPO/Engineering Services. The lion share of revenue for these companies is won from their Information technology services. Visakhapatnam has the potential to attract the booming Information Technology, given the balanced mix of social infrastructure, fast growing private and public sector units, talent availability and cost of living, all of which are necessary to fuel the sector's growth. The Visakhapatnam Information Technology sector should take advantage of the government's accelerated economic reforms and be an active part of the 16.8% Information Technology services growth which is driven by the localized strategies of service providers. These strategic changes have put Visakhapatnam a Tier 2 city in the eyes of both national and international (IT) corporations.

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