Case study title- "PARADIGM"

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Paradigm
Teaching Objectives:
The case examines the innovation of an entrepreneur in an existing regulatory framework of the security and surveillance industry. It provides insight into the ways by which a customer-centric process can be designed and how products and services can be clubbed and marketed as a complete solution.

This case further throws light on the loopholes in the financial decisions by the firm, the degree of efficiency of the management and the possible damage control measures considered by the entrepreneur to offset the impact of growth challenges.

Paradigm's case takes into account empirical and financial data of Paradigm Tech Solution to analyze the present-day scope, limitation and future prospects of the Indian security system industry. Paradigm's entry into this industry coincided with statutory changes in the Indian Regulatory Environment which were made post series of terrorist attacks in India in the early part of the decade of 2000's. Thus, this case can be used for the following pedagogical and conceptual objectives:

1) To assess the feasibility of a businessmodel and highlight the role of continuous improvement in a business model to adapt to an ever-changing and volatile marketenvironment.
2) To manage internal and external change faced by an entrepreneurial venture. (i.e. understanding the dynamics of entrepreneurial cycle, namely: opportunity identification, business model structuring, business commencement, phase management, cause & effect identification, correlating patterns, and business model restructuring).

At the culmination of the class, students will have:
1) Understood and assimilated the importance of continuous improvement in a business model.
2) Examined the dynamic nature of the entrepreneurial cycle.
3) Scrutinized the inherent limitations that any business model will have.
4) Explored the manifold methods to concoct potential solutions to maintain and multiply growth.

Paradigm
Abstract: *Mr. AnupMhatre – CEO & Founder of 'Paradigm Techsolutions Private Limited', a complete solution for security and surveillance system, sat back evaluating his business of 6 years, which he had started in 2007. He was very happy with his customer portfolio. He had in his kitty prestigious clients such as hotels like the Taj Group, Grand Hyatt, malls like Phoenix, Inorbit, and Raghuleela, events such as the Ganpati festival[1] at Lalbaugcha Raja[2], Dandiya[3] events such as Falguni Pathak's[4] 'SankalpNavratri' and many more. Far ahead of his competitors with regard to his client portfolio, he should have been a very satisfied and contended entrepreneur. But alas! This was not so…. 6 years in the business with a huge (and growing) clientele base, Anup was still struggling to post any significant profit whereas the industry was providing opportunity for growth.*

[1]The 10 days **Ganpati festival** or Ganesh Chaturthi is the Hindu festival celebrated on the birthday of the Lord Ganesha, the son of Lord Shiva and Parvati. Ganesha is widely worshipped as the God of wisdom, prosperity, and good fortune who is traditionally invoked at the beginning of any new venture. The festival is held every year between 19th August and 20th September and is celebrated all over India but more elaborate in the states of Maharashtra, Tamil Nadu, Karnataka, Andhra Pradesh and Gujarat.
Source:http://goindia.about.com/od/festivalinformation//ss/5-famous-Mumbai-Ganesh-Mandals.htm

[2]**Lalbaugcha Raja** is the most famous idol of Lord Ganesha kept at a prominent locality in Central Mumbai (Lalbaug-GD Ambedkar Road) during the Ganpati festival. The idol is kept for public display and worship for

10-12 days of the festival. This idol was made by Kambli family of Kambli Arts, and has been making the idol since 1935. Its legendary design is now patent protected.

This idol draws an average of 1.5 million people a day during festival time. People mainly believe that this Ganesh idol can fulfill their wishes.

Source:http://goindia.about.com/od/festivalinformation//ss/5-famous-Mumbai-Ganesh-Mandals.htm

[3]**Dandhiya Raas**is the most popular folk dance of not only Gujarat, but also all the states throughout India .It is a special feature of the Navratri festival. Dandhiya is a dance form usually performed in a group, by both men and women. The special feature of the Dandhiya dance is the colorful attire worn by the dancers and the colorful sticks carried by them.

The 9 days Navratri festival is celebrated to pay homage to nine incarnations of Mata Ambe, the Mother Goddess. While the days have devotees observing fasts and visiting temples, the nights are vibrant with music and dandhiya.

Source: www.indianmirror.com/dance/dandhiya.html

[4]**FalguniPathak** is a female singer and performing artist from India based in Mumbai. She is also referred to as the Dandhiya Queen. Her music is based on traditional musical forms from the Indian state of Gujarat.

I.   Introduction and Background:

AnupMhatre an engineer in Electronics and Telecommunication began working for a company as a System Integrator in Bangalore immediately after his graduation in 1999. The system integration he dealt with was a process of combining different machineries and components in a manufacturing unit to a linking software thatunified their functionality asone coherent system. Within 9 months of working in this company, Anup brought them a turnover of INR 10 million ($184,382.78).Anup's sound technical know-how, his understanding of the market and his prompt adaptability to its demands, gave him the strength to start his own distribution agency of System Integrators "Siddhivinayak Corporation" in Bangalore in 2002. Siddhivinayak Corporation soon captured a large part of the market from the main market player i.e. Rittal India Pvt Ltd.

A year of growing well in the Bangalore market, Anup shifted base to Mumbai in 2003 due to family pressure and became the sole distributor for 'switch gears' and 'system integrators' for Bharti Industries. He commanded the market because of the high standard and promptness of the after sales service associated with his products. Though Anup was doing well in the market, he could not afford to ward off his competitors who were working with smaller margins. Multiple competitors were working with strategies which werenot in tune with Anup's working style, brought a great deal of disillusionment to him, which made him restless and discontent.

II.   Birth of Paradigm:

Like many of us, Anup was a helpless witness to the 2006 bomb blasts in Mumbai local trains. Anup asked himself a question "Could the bomb blasts have been avoided?" – He contemplated "Surely if the security system is widespread and strong." A good combination of electronic security system with manpower security would help to curtail or avoid these terrorist attacks.

The need of the hour was not mere prevention of loss but also to avert the lapses in security checks and balances.Mhatre stated, "It is only when a blast takes place that we suddenly want more surveillance, more security measures. A week later, all is forgotten. But the threat never goes away."

This gave rise to the thought of having security systems reaching all places of habitat and also catering to the need of security systems by many. As India needed to recast its internal security thinking and approach, AnupMhatre envisioned an opportunity for yet another entrepreneurial venture. He aimed to exploit the market gap of "total security solution" by developing an integrated security system combining surveillance, intrusion detection, and response to events and incidents that gave rise to the birth of **'Paradigm'**

About Paradigm:

Paradigm Techsolutions Pvt. Ltd. was incepted by AnupMhatre, in 2007. Paradigm offered total security products such as multi-zone Door Frame metal Detectors (DFMD), Surveillance Cameras, Walkie-talkies, Software System Integration and Hand-held Metal Detectors.

Paradigm's metal detectors &walkie-talkie were the fast moving products, whereas DFMD was a slow moving product. (**See Exhibit 1**)

Paradigm integrated repairs and maintained security systems to keep them running at optimum levels. Paradigm's expertise in this market had helped it capture 80% of Malls, 50% of 5 star hotels and 10% of other clients like Gymkhanas, Temples and educational institutions in Mumbai-Thane-Navi Mumbai belt. Paradigm's main clients were malls and hotels in Mumbai. (**See Exhibit 2**)

AnupMhatre's**mission** of making Paradigm a name synonymous with electronic security systems in India was reflected through his passion for his work. His **vision** "To be the most trusted and technically sound vendor for electronic security systems in India" had brought him a name and reputation in the market.

III.   Product Design and Process:

Paradigm's integration used SV 35 SATA Hard Disks, which were specifically designed for DVRs that recorded the CCTV content. With the ability to support a minimum of 10 simultaneous streams of High Definition (HD) video content, operating at temperatures of up to 75 degree Celsius, they provided reliable storage that enabled clients to take full advantage of premium services like video on demand and boasted the industry's lowest overall power consumption. Unlike the competitors who may have used normal SATA hard disks to reduce prices, Paradigm used the hard disks designed to deliver reliable 24x7 operations for surveillance since the time of its release date in 2009.Special focus and attention was placed on the quality of CAT 6 cables used, as they were concealed and a one-time affair that required standing the test of external heat, humidity, voltage variance, operating temperature and flexibility.

Paradigm's products were sturdy and lasted for about seven-eightyears. The durability and the long-run savings on power consumption for twice the period of the competitor's product mix was where Paradigm had drawn its niche successfully.

This ensured that the time for customersto replace the equipment coincided with the time when the technology of the existing installed equipment had become redundant and obsolete and higher resolution cameras and advanced security gadgets would have entered the market. This in turn ensured customer loyalty, repeat orders and referrals.

Paradigm did not merely sell a configuration wherein an equipment of a certain specification is offered. It had devised a 5-stage process addressing all the pain-points of the customers as follows:

1) **Site-Survey –** The proposed site was evaluated for security loopholes and threats**.**
2) **Design** – All parameters were considered to ensure the creative application of systems analysis to provide an efficient design for the security and surveillance scheme based on survey study.
3) **Configuration** – The choice of best technical equipment and associate products was offered to meet the client's requirements and concerns.
4) **Integration** – The configuration sourced from different manufacturers was integrated into a unified system.
5) **Maintenance**– Periodic site visits and unlimited call visits were a part of the package. Also the high quality products deterred the need for call-visits thus making it a win-win situation for both Paradigm and its clients. The key difference was that apart from installing security and surveillance equipment, great importance was placed on keeping them in 'working condition'.

(**See Exhibit 3**)

Prevalent Scenario:
Attacks in Mumbai were considered as one of the top five disastrous terrorist attacks in the world by various sources.

Mumbai was targeted because of its fast growing economy and democracy, which could be a potential world power. "Mumbai alone witnessed several terrorist activities in the recent past. It started with the series of 13 explosions resulted in 257 deaths and over 700 injured on 12th March 1993."[5]There were several attacks that followed the ghastly attacks on Mumbai in 1993, like on 13[th]March, 2003, a bomb attack on a commuter train killed 11 persons.[6]

"In another incident, twin car bombings killed at least 52 people and injured 150 persons. Again, 7 bomb blasts occurred at various places on Mumbai suburban railway, killing 200 on 11th July 2006." [6]This was followed by the terrorist attack by sea in November 2008. [2]

Pune – 13[th]February 2010 a bomb explosion at German Bakery in Pune killed 14 people and injured at least 60. On 1[st]August 2012, 4 bomb explosions took place at various locations on JM Road, Pune.[6]

The attacks in Mumbai, New Delhi, Hyderabad, Ahmedabad, Bangalore, Jaipur and Pune had given a new dimension to urban terrorism in India.[7]A strong deterrent of such attacks was equipping the vulnerable soft targets with security and surveillance equipment and trained guards.

The terrorist attacks of this nature had occurred time and again and constantly increased in frequency over the recent years.

There were other crimes too where security and surveillance equipment were strong deterrents and even instrumental in curtailing crime and helping catch the criminals. The world of robbery, theft, murder and kidnapping met a strong opposition from such systems in place and in working condition.

"In Mumbai - Navi Mumbai - Pune belt, vehicle theft was the most common crime and easy to commit. The tracing of cars reportedly used in the Ahmedabad serial blasts in 2008 to Navi Mumbai had brought into focus the fastest growing illegal enterprise in the country. Armed robbery of homes and jewellery shops, cash and valuables were rising in Mumbai and Pune."[8] The Mumbai – Navi Mumbai – Pune belt had emerged as the hub of this nexus. The National Crime Records Bureau (NCRB) – 2008 report listed 8904 cases of theft, robbery and kidnapping in Mumbai. According to the police, the absence of Closed Circuit Television Camera (CCTV's) was to be blamed for the rise in crimes in housing societies.

NCRB report of 2012, Mumbai had 11,419 cases of theft in which items of value worth INR 1.81 billion ($33,373,282.9) were stolen. Maharashtra recorded 83,971 cases of robbery and a loss of INR 5.12 billion ($94,403,982.67) beating several other states as Andhra Pradesh, Madhya Pradesh and Bihar in the residential, commercial, banking and railway categories. This made Mumbai 3rd in theft crime, and is no longer "safer" than other metropolitan cities.

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[5]**http://groundreport.com/mumbai-attack-a-new-dimension-in-urban-terrorism/**
[6]**http://www.dailymail.co.uk/indiahome/indianews/article-2182288/Two-years-German-bakery-strike-Pune-rocked-blasts.html**
[7]**http://online.wsj.com/news/articles/SB122772515602360289**
[8]**http://www.dnaindia.com/mumbai/report-into-the-lucrative-world-of-vehicle-thefts-1181624**

IV.   Security System Industry in India:

"Modern man was living in a violent world and under an undeniable threshold of rising societal violence."[9]"Video surveillance was moving beyond traditional security and into new applications such as transportation, retail, government and even home networking. The security and surveillance market in India had no shortage of positive predictions on its growth potential."[10]

The INR 42 billion ($774407670.32)Indian security systems market was favorably positioned to grow at 30-35% annually over the coming 10 years due to the highly purveying awareness levels in the residential segment and the promising increase in demand from the commercial and the industrial establishments. The impetus for infrastructural development was the driving force behind the growth in the demand of electronic security systems.The major components of Indian Security market were CCTV and Access Control Systems, which together accounted for around 85-87% of the Indian Security market. Door intercom and Intrusion both shared 2% each, while all others together shared 11%. The organized players had 20% of the market share, however they accounted for 80% of the total resulting revenues. The largely untapped residential and educational sectors held an immense potential to help provide the much-needed impetus to the electronic security industry in India.

The Indian market covering the electronic security market had been primarily untapped and inadequately provided with a credible service. Despite the existence of such a huge potential market, the price sensitivity of the Indian consumers made it a challenging market for companies to enter and invest. However, the market held excellent prospects for those players who were able to find the precise mix of price, technology as well as ability to create brand visibility by spreading awareness.Frost & Sullivan, the global business research and consulting firm, was understandably bullish. It was estimated that by 2016 the security spending in the

Indian market would be $9.7 billion. The projected spending in airport security was over $3.2 billion by 2016 at a compound annual growth rate of 5 per cent.

As stated by an F&S release, the security market in India earned revenues of $800 million in 2007. This revenue was estimated to reach over $ 1 billion by 2016. "The continuous threat of terrorism, the development of India's infrastructure and the eventual development of the nation's civil aviation capacity promise to expand overall security spending in India to over $9 billion by 2016" - noted by FrisoBuker, a Senior Consultant at Frost & Sullivan. He further pointed out the fact that, "The high level of mass transport infrastructure construction will push this figure even higher."

In Mumbai there were 52 malls, 21 five-star and 14 four-star hotels. All the luxury hotels across Mumbai had intensified security by adding metal detectors, more stringent bag searches, bomb-sniffing dogs and vehicle searches. Some considered staff training on terrorist attacks. Mumbai, New Delhi and Kolkata also witnessed the deployment of armed police and soldiers at top hotels.

The industry offered great potential for growth. But what was driving this demand? There was a visible trend in the behavior of the modern day customers. They demanded more features, greater innovations and latest technology packed in one product. The increasing propensity of video downloads and the viewing of YouTube videos on smartphones, laptops, touchpads and tablets had increased consumer expectation to have the facility to tune into the video surveillance camera via the internet anytime and anywhere. Another significant growth driver that had shaped the trends was the demand from corporate, educational institutes and government offices to avail a complete security package to safeguard against all threats.

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[9]**http://www.informationweek.com/ip-video-surveillance-will-nearly-double-by-2011/d/d-id/1053180?**
[10]**http://www.idsa.in/cbwmagazine/awarenessandpreparednessistheKeytoSurvival_rvathavale_0108**

Thus a company offering a single-point solution under one umbrella was preferred. The threats that were in the top list were – "unauthorized entry, employee crime, vandalism, data centre protection, parking lot security, and random acts of violence."[11]

In 2013 the per capita income in Mumbai was INR 151,608, ($2,795.39 output.[12]

V. Market strategy:

Initial market penetration

Immediately after the 2006 bomb blasts, came the Ganpati festival celebration in Mumbai. Anup saw a business opportunity here and tried vying for electronic security support for the biggest and the most prestigious Ganpati idol- 'Lalbaugcha Raja'. In this area, he dared to enter into competition with Zicom Security First Inc. who was the security partner of 'Lalbaugcha Raja'.

Willing to suffer an operational loss, Anup offered to donate 8-channel security cameras system to beat prime competitors Zicom who offered to donate 4-channel system and 4 cameras. In fact, he continued the similar strategy in signing the security contract with Sankalp Entertainments, which hosted Navratri with the Dandiya queen 'FalguniPathak'.

This helped him in creating space in the market. As a new entrant, this gave him visibility and creditability in the electronic security market.

Marketing strategy

The loss in operational profits of these 2 events was compensated with the huge visibility of Paradigm as their brand name was placed on the entry tickets, guest chairs, and banners put all round. The visual media coverage was an icing on the cake for AnupMhatre. The cake was complete with the cherry when the newspaper carried an article on "Live Dandiya at Borivali Police Station" – security partners Siddhivinayak Security Solutions. This later drew other customers who hosted such events on a large scale. Siddhivinayak's brand visibility reached hotels like The Taj and Grand Hyatt, malls such as Phoenix, Raghuleela, and Inorbit whogave the entire order of security systems to it.

In 2007, Siddhivinayak Security Solution adopted an International name 'Paradigm' and started working for the newly designed logo and name associated with customer satisfaction.

Distribution Strategy

Paradigm sourced its products from different manufacturers and then integrated the product as per their study of the customer's requirements, thereby installing the system along with the provision of one-year free maintenance service on installation and subsequently continued the Annual Maintenance Contract (AMC) on customers demand and requirement. (Paradigm had the required expertise in manufacture of the product and the cost of investment was not too high but according to Anup the revenue earned through manufacturing would be 20%more but the process would be too tedious and cumbersome. Also marketing being Anup's forte, he preferred to concentrate on distribution & marketing)

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[11]**www.vdtsi.com/milestone/9.pdf**
[12]**http://mahades.maharashtra.gov.in/files/publication/esm_2012-13_eng.pdf**

The industry operated through a multi stage model where the product could reach the end user through multiple channels. **(See Exhibit4)**

Anup – a "SMART" thinker, concentrated on repeat customer purchases rather than spending too heavily on acquiring new customers. Customer satisfaction and maintaining customer relationship brought him many a customer referrals. He relied heavily on his after sales service and maintenance to create a 'niche' amongst his competitors. He also started specializing in repairing and bringing to work any security equipment, which was certified as "not working".

Paradigm's name became synonymous with security products and services. His clients thought of Paradigm as a provider for any and every security (directly or indirectly) related requirements such as Breathe Analyzers, Traffic Cones, Speed Breakers, parking cards or as remote as even umbrellas for security personnel. Anup fulfilled all these requirements for his clients, as he wanted to provide a "one stop solution for security."

To quote him, "Everybody looks at security as a product, but Paradigm looks at it as a solution."

Anup constantly upgraded his product knowledge by attending various product related exhibitions and extended these innovations in marketing new & better security solutions.

This was an excellent marketing strategy of creating a brand name synonymous with the security industry, which created an entry barrier for any competitor who attempted to leap above Paradigm's established reputation as a security service and sourcing specialist.

As a brand strategy, Paradigm never went for a low quality product or cheap Chinese substitutes. According to Anup, "A small thing like a higher margin for a cheaper product can compromise security and they do not wish to tarnish their image over such short term gains."

Financial Analysis:
A) Initial Investment INR1.17 million($21,572.79)
B) Cost of Raw materials (given)
C) Breakeven YearF.Y. 2008-2009
(See Exhibit 6A to 6D)
HRM strategy/ Team Analysis:

Anup-As an Employer
Managing a team of 13 employees was no mean task.But Anup did this with aplomb.

To quote one of his employees of four years, **Shailesh** (a software& hardware technician), "I am happy with the work environment. Here, we get an opportunity to learn new things in this field as a lot of emphasis is placed on learning through 'on -the-job'.

Another employee of three years **AnupVishwakarma** stated his employer Mhatre to be understanding, easily approachable and someone who helps out during the time of need. **(See Exhibit 5)**

Competitors Analysis:
Paradigm's major competitors were **Zicom, Samarth Security, Reliance Electronics,Bosch Security system, Watson Electronics, ManasrekhaEnterprises, Honey Well, Allied Security Systems, Secutech India and Wipro.**

Competitors and Quality:

The durability and long run savings on power consumption for twice the period of the competitor's product mix was where Paradigm has drawn its niche successfully.

This ensured that the time for customers to replace the equipment coincides with the time when the technology of the existing installed equipment had become redundant and obsolete and higher resolution cameras and advanced security gadgets would have entered the market. This in turn ensured customer loyalty, repeat orders and referrals.

Paradigm's products were sturdy and lasted for about 7-8 years.

Competitors and Price:

Paradigm's products focused on reducing post investment costs such as power consumption, stand-by equipment during repairs resulting in no down time waiting on claims both during and after warranty.

Competitors and Revenue:

Annual Maintenance Contract to generate revenue offered to clients who had purchased security equipment from others or from Paradigm.

Offering unlimited customer call/complain visits also added to increased demand for his services and also added to his revenue.

Competitors and target market:

Paradigm focused on selling through only B2B to SME's and big businesses, while his competitors sell from B2B, B2C and some work on tender based projects selling to Government, Airports etc. (B2G)

Growth Challenges

Providing burglar alarms for homes gave Anup the thought of entering the world of "Digital Dreams" at residential places. Digital controlling provided immaculate control over the lighting, air-conditioning, music systems, curtains, home-theatre, security …….you name it.

To quote Anup**"Have hands on control over your home even when you are not there".**

Another opportunity knocked Mhatre's door through a client referral by way of providing security solutions at reputed 5-star hotel in the city of Pune. This would open the floodgates of the untapped and promising territory of another terror target city- Pune for Anup's security solutions.

According to Forbes India, "There's this sweeping confidence in real estate giving a 20-25 percent return every year." Luxury homes were a growing preference of new-age buyers and that has encouraged developers to launch luxury and super luxury housing projects. The real estate exhibitions & shows had become complete B2C events, where top realty giants showcase their super luxury properties to the affluent target market in India's urban and two-tier urban cities

Anup faces a dilemma-
Should he enter a new city Pune providing security solutions, which is his forte? OR should he enter a completely new untapped market of home automation, which is the future?

Exhibit -1
Paradigm Products

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                    ┌─────────────────────────────────────────┐
                    │    Paradigm Techsolutions Pvt Ltd        │
                    └─────────────────────────────────────────┘
                                      │
                 ┌────────────────────┴─────────────────────┐
        ┌──────────────────┐                   ┌──────────────────────┐
        │  CCTV & Other    │                   │    Electronic        │
        │   equipments     │                   │  access control      │
        │                  │                   │     system           │
        └──────────────────┘                   └──────────────────────┘
                 │                                       │
        ┌──────────────────┐                   ┌──────────────────────┐
        │   CCTV/DVR       │                   │      Time            │
        │   Systems        │                   │ attendance/access    │
        │                  │                   │ control Biometrics   │
        └──────────────────┘                   └──────────────────────┘
                 │                                       │
        ┌──────────────────┐                   ┌──────────────────────┐
        │  Fire Alarm      │                   │    Smart Card        │
        │ Systems/Fire     │                   │                      │
        │ Extinguishers    │                   │                      │
        └──────────────────┘                   └──────────────────────┘
                 │                                       │
        ┌──────────────────┐                   ┌──────────────────────┐
        │   Parking        │                   │  Proximity Card      │
        │ Mgt/Emergency    │                   │                      │
        │  Evacuation      │                   │                      │
        │    system        │                   │                      │
        └──────────────────┘                   └──────────────────────┘
                 │                                       │
        ┌──────────────────┐                   ┌──────────────────────┐
        │ Hand Held/ Door  │                   │   Swipe card         │
        │ frame metal      │                   │                      │
        │  detectors       │                   │                      │
        └──────────────────┘                   └──────────────────────┘
                 │
        ┌──────────────────┐
        │ Digital voice    │
        │ logger/ walkie   │
        │   talkie         │
        └──────────────────┘
                 │
        ┌──────────────────┐
        │ Xray Baggage     │
        │ Scanner/ Bullet- │
        │ -Proof Jackets   │
        └──────────────────┘
                 │
        ┌──────────────────┐
        │ Bomb Blankets    │
        │ Search Lights    │
        └──────────────────┘
                 │
        ┌──────────────────┐
        │ Boom Barriers/   │
        │ Retractable      │
        │  Bollards        │
        └──────────────────┘
```
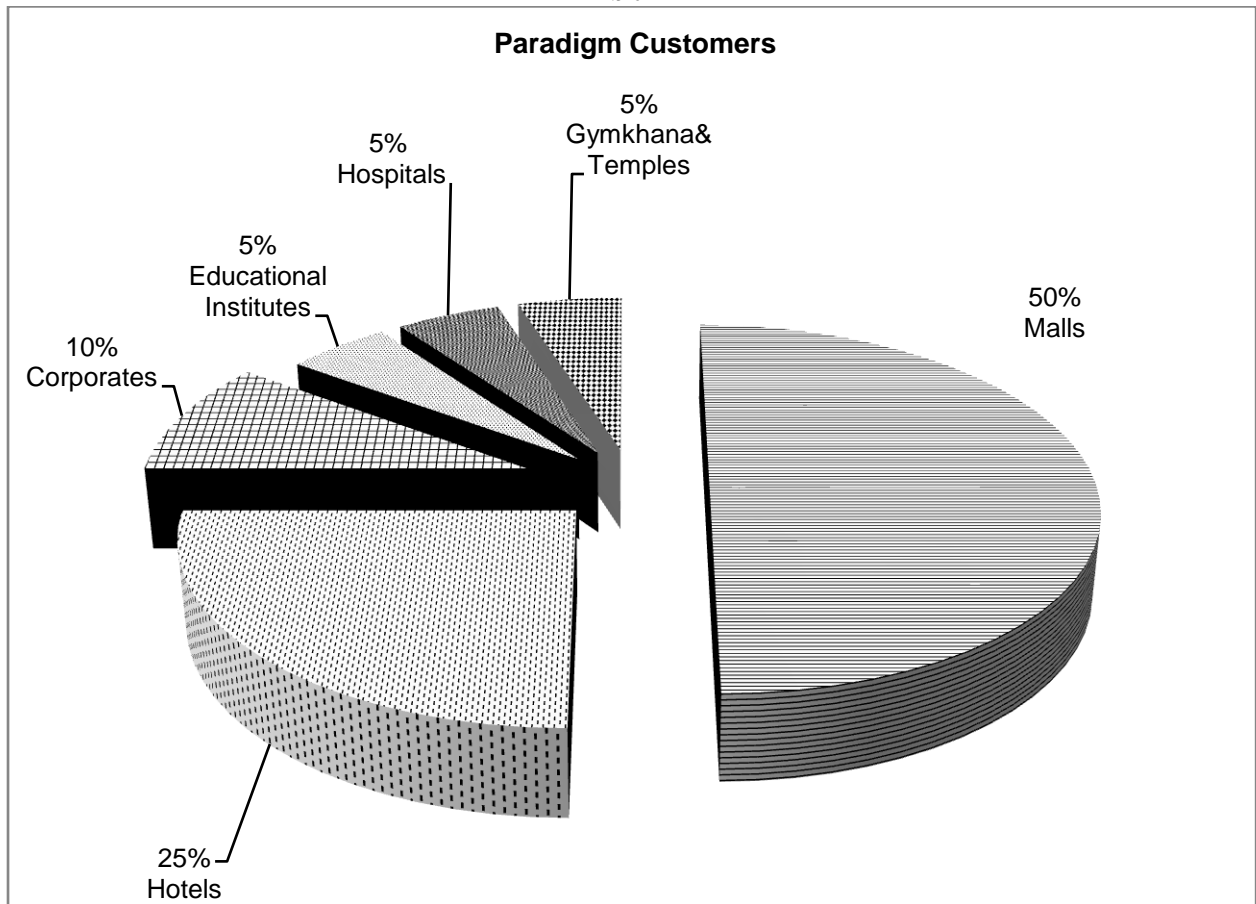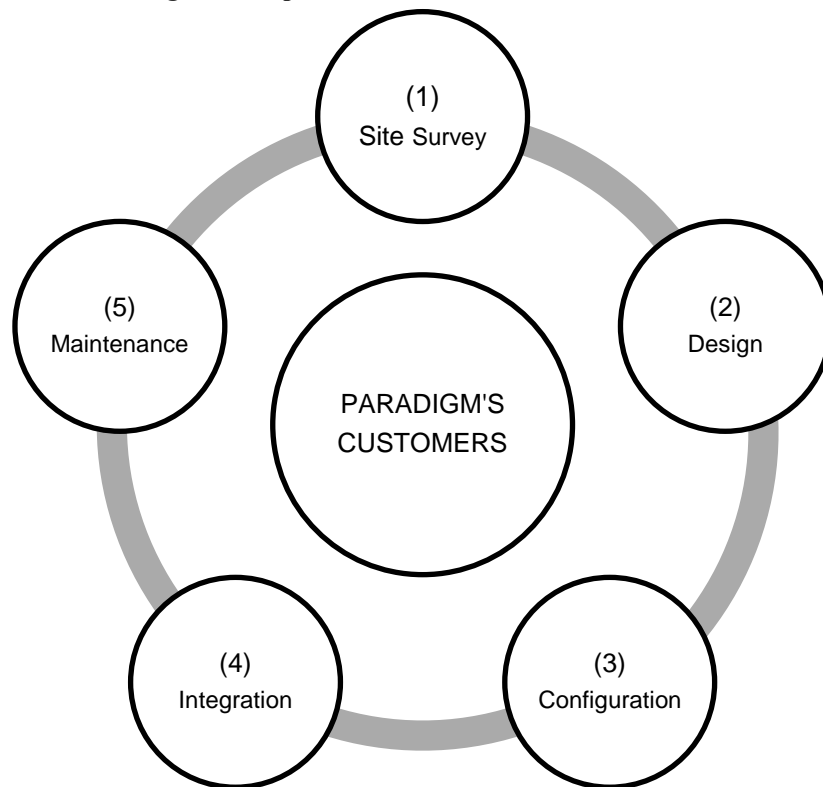
Source: Company Files

Exhibit 2
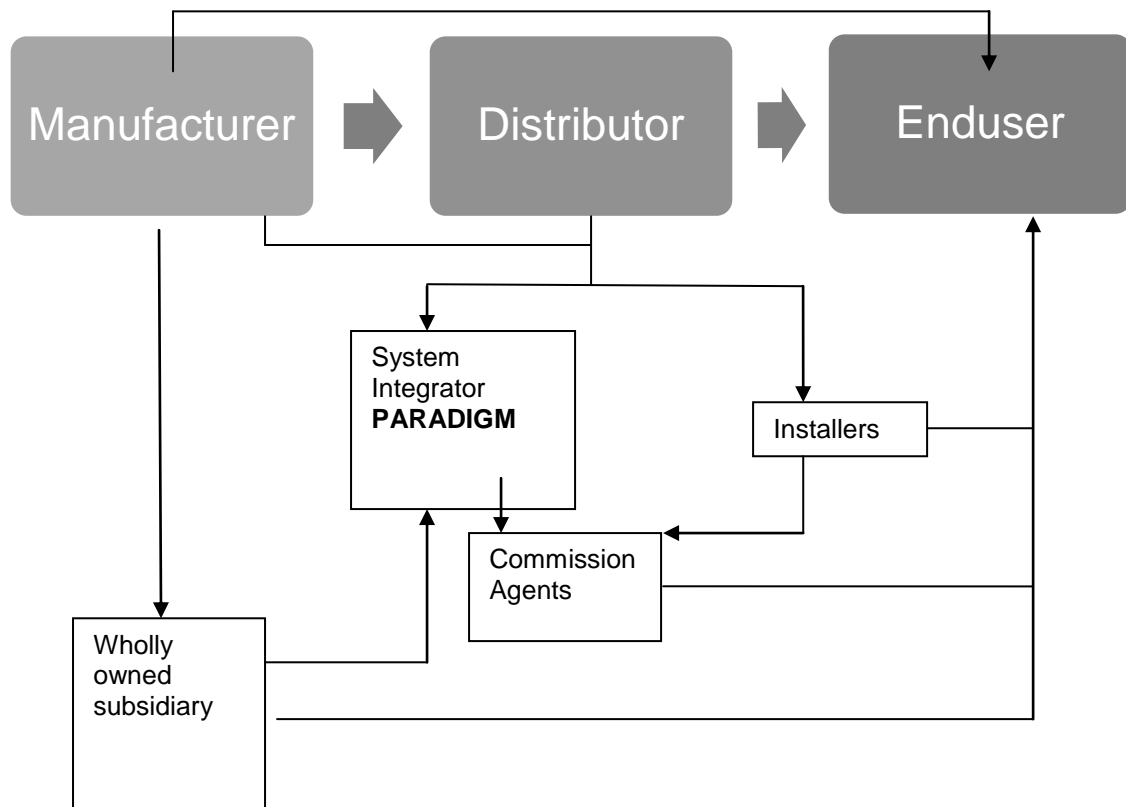
Paradigm Customers

Source: Created by authors

Exhibit 3
Paradigm's 5 Step Customer-Centric Process
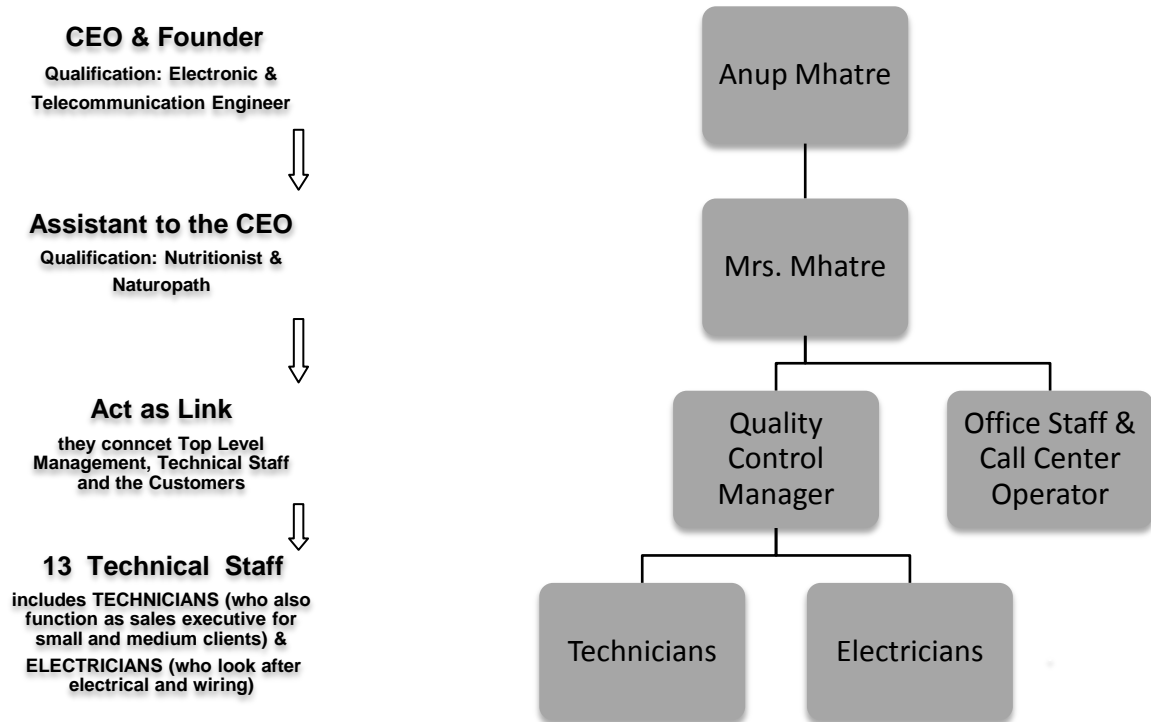

Source: Created by authors

Exhibit 4

Distribution of Products-Indian Security System Industry

Source: Created by authors

Exhibit 5

Paradigm's Organizational Hierarchy

CEO & Founder

Qualification: Electronic & Telecommunication Engineer

⇩

Assistant to the CEO

Qualification: Nutritionist & Naturopath

⇩

Act as Link

they conncet Top Level Management, Technical Staff and the Customers

⇩

13 Technical Staff

includes TECHNICIANS (who also function as sales executive for small and medium clients) & ELECTRICIANS (who look after electrical and wiring)

Source: Created by authors

Exhibit 6 (A)

PARADIGM TECHSOLUTIONS PVT LTD	
F.Y 2010-11	**Amount in INR**
Duration Cash is Tied-Up:	
Accounts Receivable (Net) = X	848,600 ($15,646.72)
Inventory Value = Y	2,464,350 ($45438.37)
OCC (Opportunity Cost of Capital) = X+Y = **O**	**3,312,950** ($61,085.09)
Accounts Payable (Net) = Z	3,382,874 ($62,374.37)
Cost of Sales = (X+Y) - Z = **B**	**-69,924** (- $1,289.27)
Operating Expense = (X+Y)/2 = **P**	**1,656,475** ($30,542.55)
Other Expenses = Q	1,004,146 ($18,514.72)
Gross Operating Expense = P + Q = **C**	**2,660,621** ($49,057.27)
Income Statement:	
Sales = INR. 1.000 = **A (assume)**	1
Cost of Sales = 0.B (brought to decimal point from above **B**)	-0.69
Gross Operating Expenses = 0.C (brought to decimal point from above **C**)	0.0026
Cash Profit per Rupee sale = A - (B+C) = **D**	**1.6874**
Cash Tied Per Sales Per INR:	
Cost of Sales per Rupee = 0.B x B / O = U	**0.0148**
Operations = 0.C x P/O = V	**0.1330**
Cash Required for each OCC = U + V = W	**0.1478**
SFG (Self Finance Growth) Calculations:	
OCC SFG = D/W= H	**11.4200**
OCCs per year = 365/O = L	**0.000**
Annual SFG = H x L = J	**0.001**

Source: Company Files & Balance Sheet

Exhibit 6 (B)

PARADIGM TECHSOLUTIONS PVT LTD	
F.Y 2011-12	**Amount**
Duration Cash is Tied-Up:	
Accounts Receivable (Net) = X	975,890 ($17,993.73)
Inventory Value = Y	2,873,587.5 ($52,984)
OCC (Opportunity Cost of Capital) = X+Y = **O**	**3,849,477.5** ($70977.74)
Accounts Payable (Net) = Z	2,884,275 ($53,181.06)
Cost of Sales = (X+Y) - Z = **B**	***965,202.5** ($17,796.67)
Operating Expense = (X+Y)/2 = **P**	**1,924,738.75** ($35,488.87)
Other Expenses = Q	1,223,913

	($22,566.85)
Gross Operating Expense = P + Q = **C**	**3,148,651.75** ($58,055.72)
Income Statement:	
Sales = INR 1.000 = **A (assume)**	1
Cost of Sales = 0.B (brought to decimal point from above**B**)	0.096
Gross Operating Expenses = 0.C (brought to decimal point from above **C**)	0.0033
Cash Profit per Rupee sale = A - (B+C) = **D**	**0.9007**
Cash Tied Per Sales Per INR:	
Cost of Sales per Rupee = 0.B x B / O = U	**0.24**
Operations = 0.C x P/O = V	**0.16**
Cash Required for each OCC = U + V = W	**0.40**
SFG (Self Finance Growth) Calculations:	
OCC SFG = D/W= H	**2.000**
OCCs per year = 365/O = L	**0.000**
Annual SFG = H x L = J	**0.000**

* (Accounts Receivable has been increased to 975,890 being a hypothetical figure considering 2010-2011 figures)

Source: Company Files & Balance Sheet

Exhibit 6 (C)

PARADIGM TECHSOLUTIONS PVT LTD	
F.Y 2012-13	**Amount**
Duration Cash is Tied-Up:	-
Accounts Receivable (Net) = X	1,150,000 ($21,204.1)
Inventory Value = Y	2,950,000 ($54,392)
OCC (Opportunity Cost of Capital) = X+Y = O	**4,100,000** ($75,596.94)
Accounts Payable (Net) = Z	2,108,775 ($38,882.188)
Cost of Sales = (X+Y) - Z = B	**1,991,225** ($36,714.76)
Operating Expense = (X+Y)/2 = P	1,570,613 ($28,959.4)
Other Expenses = Q	930,444 ($17,155.78)
Gross Operating Expense = P + Q = C	**2,501,057** ($46,115.18)
Income Statement:	

Sales = INR 1.000 = **A (assume)**	1
Cost of Sales = 0.B (brought to decimal point from above**B**)	0.002
Gross Operating Expenses = 0.C (brought to decimal point from above **C**)	0.002
Cash Profit per Rupee sale = A - (B+C) = **D**	**0.996**
Cash Tied Per Sales Per INR:	
Cost of Sales per Rupee = 0.B x B / O = U	**0.10**
Operations = 0.C x P/O = V	**0.10**
Cash Required for each OCC = U + V = W	**0.20**
SFG (Self Finance Growth) Calculations:	
OCC SFG = D/W= H	**4.98**
OCCs per year = 365/O = L	**0.00**
Annual SFG = H x L = J	**0.000**

Source: Company Files & Balance Sheet

Exhibit 6 (D)

Start-up Year 2007	Investment Value at Year End	Annual Growth Rate	CAGR
F.Y. 2007-2008	**INR 221,000** ($4,074.85)	30%	130%
F.Y. 2008-2009	**INR 289,510** ($5,338.07)	31%	131%
F.Y. 2009-2010	**INR 373,468** ($6,886.11)	29%	129%
F.Y. 2010-2011	**INR 492,978** ($9,089.67)	32%	131%
F.Y. 2011-2012	**INR 631,012** ($11,634.77)	28%	129%

Initial Investment	**INR 170,000** ($3,134.5)

$$CAGR = (\text{End Value} \div \text{Initial Value})^{1/n*}$$

* (Where n is the number of years)

Source: Company Files & Balance Sheet