RECOM: DEVELOPMENT OF A VIABLE, SOCIAL ENTREPRENEURIAL MODEL BASED ON OPTIMIZING THE LIFE CYCLE OF COMPUTERS.

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Abstract - REcycling of COMputers, or RECOM is focused on the development of a viable, social entrepreneurial model based on optimizing the life cycle of computers by recycling and repairing them, and then renting them to organizations such as economically weaker schools. It is entirely a student-sustained venture. The novelty of RECOM is that it:

➢ Takes away the hassles associated with IT disposal and provides a complete peace of mind solution for the management of redundant IT equipment.
➢ Helps companies fulfil their Corporate Social Responsibility by disposing their e-wastes.
➢ Promotes entrepreneurship and provides hands-on training to students.
➢ Spreads computer literacy among the masses by reducing the capital investment for IT education.
➢ Generates employment among local people by making them competent for basic level computer repairing.
➢ And even then, RECOM manages to make profit without budging from its social goal.

RECOM has four main facets:
1. The Companies from which the Computers are outsourced.
2. The University, which obtains the Computers from the companies.
3. The Student Group, which repairs the Computers and subsequently rents them out.
4. The End-Users, who finally receive the repaired Computers.

Keywords - Green Business, Social Entrepreneurship, Student Venture, Corporate Social Responsibility, Recycling, Optimization, Hands-On Training.

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1. OBTAINING THE COMPUTERS

1.1 Helping companies fulfil their Corporate Social Responsibility

The computers are mainly obtained from various Information & Technology companies which have a good relationship with the University built on professional terms via the Training & Placement Department. These companies often discard their computers after completion of a project, as they no longer remain suitable for high-end purposes. The University obtains these computers, and in return assures them of following benefits:

Protecting the environment by reducing e-wastes, and thus fulfilling their Corporate Social Responsibility.

Fostering a better relationship with the University, on grounds of mutual trust by the free offerings of computers by the companies.

The other source of obtaining the computers is various departments within the University, from its laboratories and workshops, which are a perennial source of recyclable computers.

The third viable source of computers is the end-users themselves, who often want to sell off their old computers. RECOM obtains these computers, thus saving them up-gradation losses.

2. RECYCLING THE COMPUTERS

2.1 Hands-On Training and Student Entrepreneurship

The University obtains the computers and sanctions them to The Student Group, for repair work. The members of The Student Group are motivated solely by social entrepreneurship, and hence profit margins are kept at the lowest possible level. The University's responsibilities include:
a. Providing logistical support, publicity and resources. Resources include use of the laboratories

of the University, the help of the Professors and Mentorship.

b. Resolving disputes within the members of The Student Group.

c. Vetting all transactions made by The Student Group.

d. Providing relevant training to members of The Student Group by organising workshops.

Its benefits include:

a. Entrepreneurship promotion among students.

2.2 Modus Operandi

The Student Group, which is the most vital part of RECOM then starts the repair work. The stakes of its members are fixed by mutual investment. Individual responsibilities are allotted to the members by mutual agreement.

The members of The Student Group have full-time access to the repository of repairable computers. The members decide as and when free, to join hands to restore the computers.

The first step is to identify the faults with each machine if at all some problem exists. Then the Computers are selected based on its problem. For instance, the first approach is to check the SMPS of the CPU. So, SMPS from each CPU is checked and all the working SPMSes are gathered. Then the working SMPSes are used to address the CPU whose problem lies only with its power supply. Similarly, other faulty components of CPUs are addressed in the same manner. When the 'trial & error' method of trying out parts from other machines fail, the required parts are bought from the market and accordingly replaced.

Simultaneously, members also seek out potential clients and approach various economically weaker organizations, especially schools, and acquaint them with RECOM and its benefits. When an interested client quotes the number of computers they require and if The Student Group is in possession of working computers greater than that number, it proceeds to strike a deal with that client. The members of The Student Group then deliver and install the machines when and where the client wants, on the full payment of the rent for the subscription period.

The Student Group's responsibilities include:

a. Providing seamless service to The End-Users and routine maintenance of computers.

b. Taking responsibility of the computers requisitioned from The University.

c. Reporting regularly to The University about the status of the requisitioned Computers, as well as the finances of RECOM.

The members benefit as:

a. Hands-on training in repairing of Computers.

b. Building of business acumen.

c. Outreach with rural people and thus, gaining grass-root level experience in business operations.

d. Share of profits as monetary incentives.

3. FINANCE

Initially, each of the members deposit a certain sum of money (as decided mutually by all the members of The Student Group) in The Student Group's bank account. This serves as an investment for RECOM, and the fund is supposed to cover any initial repair charges that will be incurred.

Once, the first lot of Computers have been rented out to the first client, and a substantial amount of bank balance has been accumulated, each of the members will get back their invested sum. Subsequent repair or maintenance charges will be incurred from the existing bank balance whose source is the rent paid by The Student Group's clients.

The bank account and all financial transactions are undertaken and supervised by the members of The Student Group, and they are also accountable for any financial shortcomings or if they are not able to explain or give valid reasons for any financial transactions.

3.1 Optimization

The rent for any subsequent extension of contract beyond the regular 3 year period will be INR 2,000 p.a. The decrease in the rent amount each year for the first three years is keeping in mind the depreciation value of the machine which already has been previously used for professional purposes.

The net cost of Scheme B has been intentionally kept marginally low to appeal to the clients. If a client opts for Scheme B, the benefit for the Student Body is that they get a bulk amount in hand which they can invest for the repair of other machines in the repos. Though in the long run, Scheme A would fetch the Student body a higher amount to boost their capital, Scheme B, rids the members the hassles of collecting the rent each term and also the additional paper-work and more importantly, reduces the chances of any human error creeping in the transaction process by not having frequent transactions. Hence, the lower amount of Scheme B is to appeal to the clients interest.

The first lot of repaired PCs, numbering around 7, were repaired by trying out parts from the other faulty machines. Net cost of repair for the first lot was nil. Hence, the entire proceeds from the sale of the first lot will go down as profit. Moreover, the remuneration is the de facto capital required for the repair work of the other faulty PCs. In the end, it is found that, with the capital generated from the sale of 6 PCs, another 14 PCs can be repaired. Similarly with the sale of another 10 PCs, 20 different PCs can be restored. So, with

negligible investment and some man power, a sustainable business model can be established. However, company standards needs to be maintained by catering to the needs of the clients regularly.

Market Prices	Scheme A (yearly rent)	Scheme B (bulk payment of rent)
Market Price a PC consisting of: 1.CRT 15" Colour Monitor 2. 1 GB RAM 3. 80 GB HDD 4. KEYBOARD 5. USB Ball Mouse 6. DVD Combo Drive 7. Intel Inside Pentium 4 8. Intel 915GAV Chipset INR 35,000* Warranty: 1 year *SUPREME COMPUTERS, 35, Chittaranjan Avenue, Kolkata-700012	Rent of a PC from RECOM consisting of: 1.CRT 15" Colour Monitor 2. 1 GB RAM 3. 80 GB HDD 4. KEYBOARD 5. USB Ball Mouse 6. DVD Combo Drive 7. Intel Inside Pentium 4 8. Intel 915GAV Chipset INR 4,000(year 1)+INR 3,000(year 2)+INR 2,000(year 3)= INR 9,000 Warranty: 3years Subscriber Saves= INR 26,000 Subscriber Gains= • Additional two years of free warranty • Instalment payment	Rent of a PC from RECOM consisting of: 1.CRT 15" Colour Monitor 2. 1 GB RAM 3. 80 GB HDD 4. KEYBOARD 5. USB Ball Mouse 6. DVD Combo Drive 7. Intel Inside Pentium 4 8. Intel 915GAV Chipset INR 8,000 Warranty: 3years Subscriber Saves= INR 27,000 Subscriber Gains= • Additional two years of free warranty

Table 1

4. RENTING THE COMPUTERS

4.1 Market standards at prices much lower than the market prices

The End-Users obtain the Computers at nominal rates, almost 63% below the standard market price, along with

hassle free, one stop services. They must continually provide their valuable feedback to The Student Group for assessment and better service. Many schools which cannot provide computer education to their students will benefit. Furthermore, the maintenance work is done by well-trained engineering students, motivated by social incentives and not by untrained, corrupt mechanics.

It is the Student Body's discretion to choose their clients depending on the 'Purpose of Rent' as stated by the clients.

5. THE WAY AHEAD

Since the current members of The Student Body will pass out after the completion of their 4 year degree, it is their additional responsibility to identify future members who will carry on the work in future. Until then, no transactions can be undertaken that extend beyond the period that the present members will remain college students.

The prosperity of any enterprise lies in diversification. Tech Fraternity offers their clients with service tending to the peripherals of a computer and also provide with customised software to The End-Users if asked for.

The members of The Student Body plans to take up computer education classes for the children of the underprivileged schools; and also provide training to some local people. This training would generate employment, as well as provide faster service to The End-User.

6. THE CURRENT SCENARIO

Recom is currently being undertaken by a student body, The Student Group, under the aegis of Bengal Engineering and Science University, Shibpur.

Capgemini has already provided the first set of Computers to the university.

The Student Group has already obtained a faithful customer: the B.E.C. Model School, Shibpur, and talks are on with two more schools of the area.

RECOM has been voted by TATA-National Entrepreneurship Network as one of the top 20 college start-up ventures.

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