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Mahua Art Gallery-A Case Study on Usage of Information Technology in a Cultural Enterprise

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Abstract

This paper, essentially a case study, begins by delving into the historical background concerning the entrepreneur and founders' mindset of a cultural enterprise like the Mahua Art Gallery; particularly how it came into existence. It then briefs on the art industry and also examines organizational aspects and related issues in a cultural enterprise of this genre. It touches upon significant aspects of Mahua's journey from nascence to the current state it is in. Discussions on how management initiatives have driven its recent adoption of technology are also present. Finally the paper concludes with a look into information technology and online social networks. Social media which this organization has embraced and potential benefits that accrue from its adoption are also discussed. This case is based on interviews conducted with the founders of Mahua Art Gallery and hence possesses an authentic stamp.

Key Words & Phrases: *Cultural Enterprise,Information Technology & Art Gallery.*

Art in the family

Dr. H.K. Kejriwal, father of Sadhana Jaipuria (also known in art circles as Meenu Jaipuria) was born in Calcutta in 1925. He started his career as a stockbroker, and then diversified into various businesses including textiles, mining, etc. A successful businessperson, Kejriwal possesses a deep passion for art. HK Kejriwal, besides inheriting a vast collection of art from his father Ramkumar Kejriwal, has been an avid collector since 1945. His collection that includes ancient paintings, sculptures, manuscripts, and coins date back to the 3rd century B.C.

Mr. Kejriwal is also involved with art foundations and institutions in various advisory and trustee capacities. He is the co-founder and vice president of Chitrakala Parishat, Bangalore's most prestigious art institute. He has donated part of his personal collection to the 20,000 square-foot HK Kejriwal museum that is housed at the Chitrakala Parishat. His donation to the people of India was recently valued at over 50 crores (12 million dollars). His collections to the Chitrakala Parishat are exhibited in four museums.

The art industry in India saw a spurt in growth during 2007-08, when the unusual buying behavior was later

followed by a lull during the 2008 economic meltdown. Traditionally, Sotheby's in the US and Christie's in the UK are the active art auction houses.

Art-related products are considered luxury goods and world-wide, their sales are estimated at 16%. There has been a dramatic acceleration of online art sales due to usage of the internet.

Sale of luxury goods in India is a mere 0.4 percent of global luxury goods sales. However, the luxury industry in India has shown very promising growth over the past couple of years. It is set to grow at about 25 percent per year over the next few years.[1]

The Indian art market grew by 830 percent over the last decade (Artprice Statistics[2]) although India's art market is a meager 0.55 percent of the world art market. Size of the global art market was worth $60.8 billion in 2012[3] ($11.6 billion art sales in 2011 as per Fortune [4]).

Like all markets for luxury items, the art market is also driven by supply and liquidity. With rising disposable incomes, more and more HNIs (High Networth Individuals) are turning to passion investments to diversify their portfolio and satiate their tastes for finer things in life. Indian HNIs mostly restrict their passion investments to tangible assets (such as gems, jewelry and real estate) as against sophisticated financial instruments and are thus more conservative in their investment strategies.

Art and luxury goods are aspiration products that the middle class cannot afford yet. New indication as per reports and market surveys is that there is an increase in sale of art which can be categorized as 'affordable' (Rs. 20,000 to Rs. 75,000). This segment of buyers is probably expanding and benefiting the most.[5]

India is not a big market for arts. However, greater diffusion is expected to happen via technological interventions like the Google Art Project[6] which would broaden the interest among those who are new to fine arts. Online art auctions are also seeing a rise[7] in the Indian context.

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The art world is fraught with copies which get surreptitiously or unknowingly (even by famous art houses) sold. This raises the question of security while buying art. People are wary of copies and are careful in buying paintings . The artist's signature is necessary these days. Earlier it was not the case, for even copies of famous artists would sell.

At times, artists themselves cannot identify their own originals. Rules in Europe and the US mandate that the artist sign behind the artwork. Several mechanisms are used to verify the authenticity. One such mechanism is to store the original colors used in the painting for later comparison. This is not a new phenomenon, as 300 years ago too, paintings used to be copied. Another method for identifying the age of the painting is through crackles –the bigger the crackles,the greater its age. Authenticity and credibility are thus the key parameters for an art collector.

Copies are not valued as much, simply because of the uniqueness aspect. Uniqueness lends itself to better valuation and beyond just monetary terms. In this respect, a gallery essentially provides authenticity for the art and the artist. It so happens that style is copied and as a result its value falls. This is what happened with the artwork of Jamini Roy whose artwork has no buyers now.

Art collectors are valued for the history of true authenticity associated with them. Thus the source of the art lends importance to the person collecting it.

Any art form can be copied. However, for traditional art forms like Kangra or Mughal –vegetable dyes were used to color – so to replicate and obtain a similar effect is difficult. People consider a painting new if creases on the painting, which are most essential, do not exist. The selling route also can help detect copies.

Art collectors generally have a high level of emotional involvement and attachment to whatever they collect. The human tendency is to overcome loneliness. Art is an expression of those feelings and emotions that overcome loneliness.

Appreciation of art is much higher in western countries as several people view the art on subways, art boards in railway stations, the underground in London etc. Knowingly or unknowingly, viewing art leads to appreciation. Sculptures are also prominent in public spaces. It has taken years to establish this. Making people aware is the first step. A beginning has to be made and public policy is important here. Chitra Santhe as an annual event happens in Bangalore, India, near Karnataka Chitrakala Parishat. In London and Paris, people copy and sell art on the streets, near museums etc on Sundays and holidays.

In colleges and universities too, films on development of art and artists and their techniques are showcased to promote art.

Dr. H.K. Kejriwal's personal background

Born in a Marwari community and brought up in a Bengali locality in Kolkata, Mr Kejriwal was educated at the Hindu college. In his own words, being in the company of the culturally rich Bengalis paved the way for intense interest in the arts! Then, wealthy *Zamindars* (land owners) would collect art – portraits and oils paintings. Marwaris did not have a passion for the arts. Kejriwal's father did not want to send him to Marwari schools. In order to inculcate Indian culture and heritage, he was sent to The Hindu School. The Hindu School was an affiliate of the Presidency College and was started by Raja Rammohan Roy. He started learning Hindi much later. A mindset that was oriented towards wealth accumulation was prevalent among the *marwaris.* Women's education was neglected in the Marwari community. A hybrid of British and Indian culture was present in the Loreto School. This helped in the growth of Dr Kejriwal's interest in the arts.

In 1948, art was sold to emerging collectors through local brokers. Artworks were sold for as low as 100-200 rupees. Mr. Kejriwal started his collection from 1948 and later-on introduced the culture of art to the Birlas. Five thousand books on art were purchased in 1946-47 from Oxford with a view to cultivate art culture. They engaged a professor who was learned and had the knowledge of the evolution of art in Bengal.

It was in this environment of appreciation for the arts that Meenu Jaipuria was born and brought up. This was an important experience for her in her early life. Seeing the paintings, like-minded collectors including her father (incidentally all the four Kejriwal brothers have separate collections) made an impact on her. This was a strong reason for her making a career in the arts sector as the founder of the Mahua Art Gallery. Mr. Kejriwal is a great admirer of Rabindranath Tagore. He has a high degree of involvement in Bengal art. He claims that communism has destroyed art and culture in the Bengalis.

Usually, wealthy people use art to decorate their houses. Beautifying their residences with paintings is in vogue again. Dr Kejriwal says it is akin to adding more glamour to beauty!

A satisfied man and a frustrated man will see art in different ways. Only a satisfied man turns to art. Beautiful things are bought to decorate and bring out the expressive side of an artist. The analytical buyer is different and may look purely at investment or try to find meaning in the artwork. Attractive paintings are what he likes to collect.

The market value of an art piece is the amount that a willing buyer pays a willing seller under normal circumstances. Normal circumstances mean when the buyer has both reasonable knowledge of the artwork and the artist is not unduly influenced by any gallery.

Estimates are arrived at and there is a probability that out of ten paintings bought, at least one will be valued at around a crore within a span of 1-2 years.

Artist reputations differ within the art community and it is important to remember this while buying art. For example, there is a difference in reputation between those that are established universally as against those established locally within India. The statures of the two are not the same. Celebrated artists are of a totally different and higher category.

When an artist's work reaches 2 to 5 lakhs, then the perceived value of his work goes up. Simultaneously, demand soars and recognition by museums adds to the importance. Rarity in art is also another important factor. As with any traded commodity, the value of a product goes up if its availability is restricted.

Dr Kejriwal himself possesses the best collection in modern Indian arts including folk art.

If the rich buy, then the artist becomes famous. Hype about an artist can lead to greater sales of his works. This can further lead to a temporary appreciation in the value of that artist's future works. This is not true for the permanent value associated with artists considered as the masters. The art of the masters will never depreciate. Art valued for centuries cannot be undervalued suddenly.

Creation gives joy to the artist. Art has several dimensions that include aesthetic, commercial and emotional. Dr Kejriwal feels that nature, art and beauty lend joy to him. And the possession of art is also a great joy!

Dr Kejriwal says art has made him what he is today! This drives him to give back to the society, as art is a national asset. Therefore, a significant part of his large art collection has been donated to the Karnataka Chitrakala Parishat in the form of several galleries. He says his daughter Meenu Jaipuria also feels proud when she tells the world that they have initiated these unique galleries in the Karnataka Chitrakala Parishat.

Dr. Kejriwal himself is tempted to buy good art. He often visits art shows in the city. He has travelled all over the world and visited many museums - near about a hundred museums several times. He finds it all addictive.. He has donated Modern art worth a few million rupees to the Chitrakala Parishat. He set up Chitrakala Parishat in Bangalore. The HK Kejriwal foundation also focuses on education and awards are instituted for young artists for propagating art.

Dr Kejriwal is of the opinion that art appreciation has to take the shape of a social movement. Tourism can also be built through art museums and in a cyclic process it will lead to greater appreciation and discussion of art. Museums are not well-maintained in India. Very few art-museums have air-conditioning which causes a lot of discomfort.

Art is sure to flourish in a financially buoyant environment. Bombay and Delhi continue to be the hubs for art activity. In Dr Kejriwal's view, Bangalore will soon be the place of action for art.

Meenu Jaipuria's experience

Meenu Jaipuria founded the Mahua Art Gallery in Bangalore in 2002. An aggressive commercial approach was not what she envisaged for her gallery. Nurturing arts was the prime rationale and her approach was different. Every gallerist has a different outlook and a different worldview. Her idea was not to scale up in size like Saffronart (India's largest art auction house).

In the art world, 'art cliques' get formed and these are opaque and often difficult to penetrate.

Either artists need to market themselves or the gallery does it for them. Thus many a time branding requires a thrust from the gallery as Being more innovative is an important way of being unique and not just playing with numbers, hiking them in auctions etc. A good perception of an artist's body of works helps build a market for his/her artworks.

Collectors who pick up artworks are important. As a result, art gallery cliques cannot always drive the valuation. Value has to be inherent in the work. Risk is involved in buying art. Different minds approach art in different ways. For cutting-edge art such as installations – unique thought processes are essential as they are conceptual in nature. Worldwide biennials especially the big ones usually promote the same galleries and the same set of artists.

You need guts to become an entrepreneur. A support system brings in the trust factor and confidence. The

entrepreneurial journey has different problems. The entrepreneur is judged on the basis of commitment to business --is it a casual one, or a more serious long term one? Responsibility and credibility are two main issues which need to be handled. Building credibility takes time. Meenu Jaipuria enumerates a few criteria for building credibility:

- Aesthetics in art - selecting and promoting the right ones
- Transparency with the artist--constant communication
- Conveying jargons of business to artists. If a certain artist's work does not sell it does not reflect the quality or incompetence of the gallery. Such issues crop up.
- Being a conduit between the artist and the art buyer which can be tricky
- Event invitations and dialogue building with art buyers
- Providing authentication certificates to collectors. They are provided by the artist via the gallery. Secondary sales of the art works of dead artists happen only when the works are in the possession of credible art collectors.

For an individual entrepreneur frustration can be a key issue, especially when there is a need to close down the gallery because of poor sales. Any new art venture does not involve just buying and selling of art. An art entrepreneur faces many administrative difficulties such as logistics.

Meenu Jaipuria sought and obtained help. One has to seek advice from people in the business and they become mentors. In India, people do not look upon art for art's sake. For them, art is a quick money-making business. The market is maturing. Established art schools turnout the best artists from the young and fresh artists. Art galleries should seek out and select artists from these. Some of the good national art institutions are: Shantiniketan, Baroda School of Arts, J J School of Arts and Cholamandalam. In her opinion, skill acquisition is highest in Bengal (Shantiniketan) and Baroda School is known for conceptual depth.

The current challenge is marketing arts to the young people and educating them about it. Mahua is making efforts to bring out an electronic bank (in the form of CDs) containing knowledge such as history of art in India, contemporary and ancient art. They have also gone in for a tie up with National Gallery of Modern Art (NGMA) to conduct art-related lectures and performing arts events. Over the weekends, Mahua invites 10-20 people to meet at the gallery, discuss and understand the aesthetics and nuances of art. Meenu Jaipuria cites an example where children in cities like New York gain exposure to arts right from early childhood.

Newer folk artists are jumping from a background of traditional art to education and moving on to contemporary art forms. This is an evolution of art and this need not be viewed as a corrosion of traditional techniques. The artist brings in his or her own imagination along with contemporary concerns. Australian aboriginal art was sold in Christies auctions recently.

In Meenu Jaipuria's view, dilution of the traditional style is not a cause for concern. If the spirit and energy is intact, art evolves based on the choice and prerogative of the artist. Choice of the artist and nurturing the art are very important. Evolution in artistry helps artists sell their works. Gaining an audience is equally important, as it is a matter of livelihood for these artists.

Authenticity of the artist and freedom of expression are most important. Different people want different things. Maintaining authenticity should not lead to the art gallery owners gaining control. The value is in preserving the creative urge that comes only once in a while.

MF Husain's works of 1970's are good. Now they are a mere status symbol. Meenu Jaipuria says she buys paintings that give her inspiration! Husain's branding has helped bring up the market as a whole. However branding and commerce bring in repetition in art. Consequently creativity in the artist suffers. As multiplicity of an artist's works goes up, replication occurs, and in the process, evolution stops.

It is quite natural to have lack of confidence initially. Entrepreneurs need to shut out the depressive, sinking feelings that occur at times. Genuineness of people involved in the business (artists and art buyers) is very important when you are in the growing phase! A passion for art is essential. Entrepreneurs need to find out how artists think and create art!

To learn about art Meenu Jaipuria often travelled to Shantiniketan. There she interacted with the artists at leisure. She got to know the artists on a personal level and watched their creative art processes. She visited master artists and renowned art collectors. In her view, although technique is important, imagination is crucial. Lack of imagination leads to repetition and such artists cannot succeed.

Commerce was not the basis of her foray into arts; rather it was a search for excellence along with a drive to find out how the whole thing works. Her gallery started in a place with very few footfalls; then it was housed in the Leela Palace, a seven star hotel in Bangalore. It was not affordable even though she was invited to curate. To start with, she did curate a show there by borrowing art from elsewhere. Later, she booked a space to house her art permanently. Identifying a location for the gallery should take into account footfalls of potential buyers! Master artists questioned the presence of an art gallery in a hotel as it was against their ethics.

There were people from London who visited the show at The Leela. So the next question was: why not conduct a show directly in London? Waiting for a market research was not feasible, as in that case she may have never gone to London. It is the passion that sustains an art enterprise, and at some level, an entrepreneur is a gambler. So her London exhibition paid off and she made a decent profit in London.

The euphoria of a sale in a foreign land is but temporary. The question then arises, what next? The entrepreneur should always be thinking of the next move in gaining sales. A rough plan also helps in the decision-making process.

During the early phase of the startup, logistics and transportation was provided by a partner company (her husband's firm). In-house insurance was also an advantage due to the presence of the partner firm.

It takes up to one year to recover the insurance money. In several cases, the amount cannot be recovered.

The brand initially created at The Leela Palace continues to sell art through exhibitions. Commissioned projects involving interior designing and mural art for corporate houses and architects are envisaged as a means for Mahua to diversify.

The gallery is trying to educate collectors through talks and events. Recently in international sales, art by Seema Kohli was auctioned in the UK. Art collections for resale and art fund markets like the London market are possible targets.

Meenu Jaipuria feels some new entrants into the art business lack the passion for arts as they come from a background that is highly commercialized. In the field of arts, this route may not work in the long term. She cites Religare as one such initiative, which tried to model a stock exchange for arts - looking at art merely as an investment option and nothing else. They have not been successful in this endeavor.

It takes time to build efficiency and goodwill in a business. Among startups, there is often a fear due to the presence of big firms and the big money. Art is about beauty and culture and thus understanding the field and self-education is necessary. Perception building through public relation drive is possible but not sufficient. It is primarily a relationship-oriented business.

It is essential to find out what a customer is looking for. Potential buyers should walk around the gallery to view the existing works. If necessary, explanation should be provided. An artist first replicates a style, learns it and then creativity leads to establishing a unique style. To understand and explain this style to the buyers is also a very important task. Curators are sought for this very reason. When renowned art collectors get intrigued by an art style, then its value soars. For this to happen, the style has to be an inspired one.

Bangalore is a tier 2 city for arts. Growth had been slow until now. All galleries should be collectively engaged in nurturing the art ecosystem. Goodwill building with the community helps in branding. Branding is very important for a gallery. Annually, young artists are awarded by the Mahua and the H K Kejriwal foundation. Education events promote sales. One such example is the joint event organized in association with NGMA.

Financial benefits keep an entrepreneur excited and energized. Creation of wealth along with a responsibility towards propagation of arts go together. An art entrepreneur needs to keep these twin goals in mind. Clarity in positioning of the gallery has to be first achieved in the mind of the entrepreneur. Helping people who are novices in buying art and initiating them into the process of buying is a great service that an art gallery can do. Documenting and filming the processes and styles in art creation will be helpful. This may help mature customers make informed decisions. Art galleries hire curators as they are knowledgeable. Mahua plans to enable buyers of art to be intelligent and well-informed.

To an existing art gallery the online community acts as a supplement. This online community helps in reaching out to the new generation of artists and art buyers. Usage of blogs helps in making connections. The online social medium is quite active these days. Innovative marketing is possible on OSNs. Community building has started as Mahua now has over 4000 registered members, growing on their Facebook community page.

Teaching Note (In the form of possible questions and plausible answers):

Does Mahua need to adopt the online mode more aggressively?

To stay relevant and be with the current trends, Mahua needs to focus some of its efforts on brand building online. Some recent developments include VIP Art Fair – an art fair conducted worldwide and entirely online, Google Arts Project brings online several art museums from across the world. These clearly indicate the power of the online medium to reach out. Several of the most successful art galleries have massive online presence. One such example is Saffronart. Many galleries have reported that 50 percent or more of their revenues accrue from online sales. Physical space constraints do not exist online and as a result, more artifacts can be displayed.

With its view of targeting the youth should Mahua be creating its own online social network?

Yes, the adoption rates of the online social networks have gone up. This is also true because the best way to target the youth is where they spend the maximum amount of their time! To the extent possible, medium's popularity needs to be exploited. According to a Nielson study, there are over 30 million users of social networking websites in India1. According to the study, Indians spend more time on social media than they do on checking personal email. An equal number spend up to an hour on social networking and email. However just 8% spend between an hour and three hours on personal email, 20% spend the same time on social media sites. Over next six months 45,000 online Indians intend to join social networking sites each day. Nearly 40 million Indians are using online reviews to make informed purchase decisions. 67 percent of Indians who are on the web, use online reviews to help them make purchases. The annual growth rate of online social adoption in India is about 100%.

Should Mahua use *Youtube* channels as an authentic art knowledge repository produced by Mahua and other online mechanisms to create their unique online identity?

Since Mahua art gallery has plans to come up with a repository of art videos it is an imperative that they use an exclusive Youtube channel to showcase the videos and create a brand presence online. These videos can become viral, if crafted in an appropriate way and can spread among the online spaces. These videos have the potential to become a reference of sorts leading to online discussions. Video and audio podcasts have been found to be a means of self-learning preferred by art enthusiasts. Videos of one-time events may be streamed live as well as stored for archival purpose. With the onset of smart phones, mobile apps (applications) are becoming very popular. Apps are a great way to reach the customers and keep them engaged with frequent news and content updates. Audio and video are dominant means of entertainment in India. As a result, videos can naturally connect better with the middle class. This could help to spread a culture in arts beyond niche crowds.

For an art-focused online social network the following would engage you				
	Very true	**Somewhat true**	**Not very true**	**Not at all true**
Virtual worlds	25%	31%	25%	19%
Audio and video podcasts	28%	38%	22%	13%
Interactivity like games and puzzles	16%	22%	38%	25%
Mobile apps	22%	38%	22%	19%
Simulation of home decor	44%	19%	22%	16%
Loyalty and privilege points	28%	22%	31%	19%

What benefits will the Mahua brand gain by adopting online social networks (OSNs) for interaction among artists, art collectors and art enthusiasts?

Within online social networks, friends' recommendations are of greater value than those provided by others online and offline. An art marketer's dream would be to positively influence a well-connected person online. He then influences many others within his vast social network. Such a person spreads the word through the viral word-of-mouth, leading to a greater reach than through a standalone website. Sentiment analysis can be done to analyze the positive and negative comments emanating on any OSN. The contents that members discuss can likewise be analyzed through text analysis.

Greater involvement is beneficial as it can lead to repeated buying. OSNs play a significant role in increasing this involvement. Fresh content is generated more often. Keen members have a higher frequency of usage and generate greater volume of information. Registered members can subscribe to specific topics or to online feeds generated by other members using appropriate technologies. Some of the current technologies available include RSS - Really Simple Syndication, Atom or bookmarking sites such as Digg, StumbleUpon, del.icio.us). Targeting customers may be done by gleaning self-published data (at multiple levels) on areas of interests of members and their friends. Due to a two-way interaction, the gallery may get valuable feedback from the buyers in real time.

Benefits to the buyer include greater variety of art available online and feedback to judge the quality of this art. Engagement of the buyer within forums goes up. OSNs help scale up and reach a large number of people. This will result in increased creativity for the artists who are on the OSN as they would have access to diverse information and perspectives, and a constant stream of information from other members. The curatorial function of finding, filtering and displaying art (or related contents) done by registered members within an OSN generate more value for everyone.

The autonomy within online social networks is similar to that within cultural industries. Hence the application of online social networks to a cultural organization like Mahua will further reinforce it. Artists being independent and highly individualistic will be able to adapt with ease and comfort to an OSN. Artists from different locations rarely come together and hence interaction does not happen. Online social networks provide an additional advantage in such cases. OSNs may be used for increased sharing of knowledge and interaction among artists. This may result in high quality art creations.

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Analysis of features of Operating System Products

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Abstract

Information Technology has evolved over a period of time from Electronic Data Processors (EDP) to Cloud based technologies. Software is a critical component in this industry. The core product component in software is the set of instructions in the form of source code. During inception of the industry, programs were available at no cost. In the next era of information technology, programs which were free off cost were sold at a price. The programs were sold in the form of licenses. Proprietary software dominated the industry. The hardware manufacturers, users and organizations had to largely depend on propriety software. In the recent years users are moving towards open source applications. In specific, open source based operating system is being used and preferred by most of the users. Microsoft has considerably lost its market share in operating system products from 94.38%(based on data compiled by Authors) in Jun 2007 to 86.58% in May 2011. One of the main drivers of market share is product acceptance. Product acceptance is largely dependent on product features. This paper makes an attempt to identify critical features of operating system that may result in product acceptance and increase market share.

Introduction

Computers have been an integral part of the organizations. Most of the operations in any organization are entirely dependent on computers. The performances of these operations are dependent partially on the performance of computers. Early computers were just processors similar to calculator. These processors were designed to bring efficiency in the operations of organization. Along with efficiency, effectiveness also became a necessity for computer designers and manufacturers. Therefore designers ended designing a computer which is efficient and effective. These computers could process only one job at a time. Only one user could use computer at a time and run only one task. The user had to write the necessary code to process his data. This code was fed into the input/output control system. Since computers were able to run only one job/application at a time, there was a need to develop a system which can process multiple applications at a time. IBM mainframes were one of the pioneers to develop multitasking systems. The feature of multitasking can be facilitated through a feature in operating system. Share operating system was one of the early OS released in late 1950's which had multitasking capability. An operating system is software, consisting of programs and data that runs on

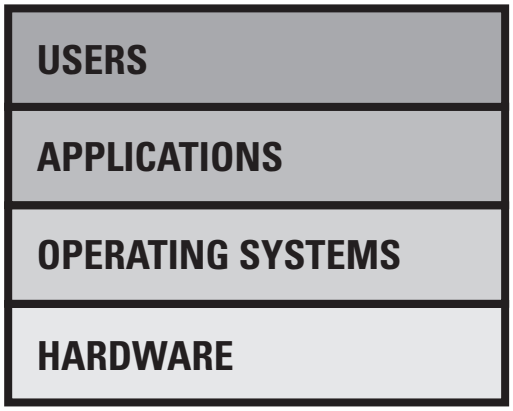
computers and manages the computer hardware and provides common services for efficient execution of various applications software.

Operating system is one of the most important components in computers. Every computer system requires a microelectronic chip called the central processing unit (CPU) plus operating system (OS) software. The OS directs the instructions requested by the application software, while the CPU performs the numerical computations. More Importantly, CPU and OS are almost always combined in fixed proportions: one of each is needed per system (Baseman et.al. 1995). Operating system is technically indispensable component in IT hardware.

The role of operating system products in information technology industry has been vital right from the inception of information systems in the organization. All hardware and software are dependent on operating system. The performance of a software application or hardware is largely dependent on the functions and features of operating system. Some of the basic function of an operating system is resource management, task management, file management and a few of utilities functions. Operating system functions and features have evolved over a period of time depending on the customers/consumers requirement. OS products are considered to be technology driven product. The functionality and features are adapted with evolving technology. Operating system is no more restricted to desktops, laptops and servers; it has been used extensively in mobile and other technology devices.

Operating system is available in various forms. It is available as an independent product or it is embedded with the hardware. The operating system products are generally purchased through licenses. The form in which the operating system is made available drives the business model of organization that develops operating system. The various business models adopted by a few of the major players have been discussed in the below section.

An operating system is software, consisting of programs and data that runs on computers and manages the computer hardware and provides common services for efficient execution of various application software. A generic view of the operating system integrated in a computer is shown below,



Source : Authors

Operating system helps the processor to read input from hardware, allocates memory, calls the required application software to process the input and sends output to the hardware device.

Operating system acts as an intermediary between the hardware and application software. A few of the critical components of operating system are listed below:

Graphical user interface
Kernel
Program execution
Interrupts
Modes
Memory Management
Virtual memory
Multitasking
Disk access and file system
Device drivers
Networking
Security

Operating systems are designed for Desktops/Laptops and Servers. The major players in this industry are Microsoft, Linux and Mac OS. Under Desktop category, Microsoft (MS) Windows and Mac OS are the major players. Mac OS is referred as Mac in the descriptions below. In server category, it is mostly MS and Linux. Mac's presence in this category is considerably less.

Current Market share in Operating System products

Microsoft (MS) is a proprietary operating system. Users buy licenses to use MS operating system. License provides authorization to use operating system. Apple Mac is also license based operating system, but is a hardware integrated operating system. Mac is compatible with only Apple computers. Linux is open source code based operating system. Communities of users develop and test source code. A set of distributors download OS code and sell the code as a package to users under various versions. A few of the dominant distributors of open source OS are Redhat, Fedora, Suse, Ubuntu etc,.

Table 1: Average Brandwise Market Share of Operating System Product

	Microsoft	Apple Mac	Linux	H- Index
May-07	94.3	3.9	1.3	0.89
May-08	93.9	4.3	1.4	0.88
May-09	92.6	5.6	1.1	0.86
May-10	90.0	7.5	1.3	0.82
May-11	87.8	8.5	1.0	0.78
May-12	86.4	9.3	1.1	0.76
Mar-13	83.8	7.5	1.4	0.71

Source: Compiled by author from various sources

Table- 1 shows the average operating system market share of three major players who dominate the market. This data is compiled based on the market share data from four sources namely Net share, Stat owl, Stat counter and w3counter. As shown in Table-1 Microsoft has lost nearly 10.5% of the market share between June 2007 and March 2013. It was a dominant player holding nearly 95% of the market share for a long period of time. Linux's average market share has increase by 0.01% from 1.31 between June 2007 and March 2013. However, Apple Mac's average market share has increased from 3.9% to 7.5%. The market share for Apple Mac has increased by 3.6%. The last column in the table above is Herfindahl Index(H.I.) which is an indicator of the trends in the state of competition of the industry. The computed H-Index during May 2007 was 0.89. This is an indication of the presence of a dominant player. The H-Index during March 2013 is 0.71. The changing pattern of dominance in the market share is clearly evident form the H-Index. Table-1 also shows the volatility involved in the market share for operating system products.

It is known that market share of organization is dependent on sales. If sales increases, market share also increases. There are various factors that drive sales. One of the critical factors is product. The description of a product is expressed through its features.

At this juncture, it is imperative that there is a paradigm shift in operating system's market share. There could be many reasons for the paradigm shift. One of the reasons could be features that offered by operating system products. In this study, an attempt has been made to identify critical features of operating system products.

Research Methodology

Operating system is highly technical product. Therefore the target group has to be technically sound. The customers of operating system can be classified as enterprise and home segment customers. Generally, Enterprise customers are more informed about operating system as compared to home segment customers, since the performance of enterprises' product performance might be dependent on operating system.

Hence, the target group selected for the research is enterprise users. The enterprise users in information technology industry use operating system product extensively. Therefore, the research focuses only on the enterprise users in information technology.

An instrument was developed to capture the experiential perception of operating system products. The instrument consisted of questions relating to the operating system product features and the experiential reflection of operating system usage across Microsoft, Mac and Linux brands. In all 554 valid responses were considered for analysis.

The responses were collected through online as well as physical survey. Convenient sampling was adapted to collect the responses. The target group was technical users who are working in the domain of information technology.

Results and Discussions

Exploratory factor analysis was used to identify interdependency and cluster of operating system features. This clustering help identify critical features of operating system and bundle them appropriately in the product.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	5913.422
	df	153.000
	Sig.	.000

KMO sampling adequacy is 0.933 which is an acceptable range of adequacy. Large KMO values are good because correlation between pairs of variables can be explained by other variables. The significance value of Bartlett's test of sphericity is 0.00 <= 0.005. These two measures indicate that there is adequate sample and the responses are valid and suitable to run factor analysis.

Principal component analysis has identified three main components that explain the variation of close to 63%. Eigen values of all these three components are greater than 1.00.

The first component consists of features of interface. All the features of interface have value of 0.7 and above. The features namely ability to support legacy

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.833	49.072	49.072	8.833	49.072	49.072
2	1.367	7.592	56.663	1.367	7.592	56.663
3	1.048	5.824	62.487	1.048	5.824	62.487
4	.933	5.181	67.669			
5	.731	4.059	71.728			
6	.648	3.601	75.328			
7	.598	3.324	78.652			
8	.539	2.996	81.649			
9	.491	2.729	84.378			
10	.439	2.441	86.819			
11	.400	2.220	89.040			
12	.363	2.016	91.056			
13	.333	1.849	92.905			
14	.298	1.655	94.560			
15	.287	1.593	96.153			
16	.266	1.476	97.629			
17	.242	1.343	98.972			
18	.185	1.028	100.000			
Extraction Method: Principal Component Analysis						

Rotated Component Matrix			
	Component		
	1	2	3
Ease to Install	.276	.080	.774
Graphical user interface	.179	.319	.783
Customer support	.289	.347	.583
Data Security	.201	.753	.298
Compatibility with software	.246	.809	.217
Ease of use	.255	.656	.401
Compatibility with hardware	.381	.765	.096
Updates/patches availability	.559	.506	-.010
Ease of troubleshooting	.569	.432	.201
Portability	.637	.266	.271
Value for money	.532	.317	.273
License options	.606	.244	.189
Data recovery/backup	.581	.440	.230
Ability to support Multiprocessors	.762	.216	.149
Ability to support multiple file types & bit structures	.753	.284	.092
Ability to support legacy application software	.784	.176	.191
Has a better interface to work on multiple platforms	.758	.127	.305
Supports many application development platforms	.674	.192	.297
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization			
a. Rotation converged in 6 iterations			

application software, ability to support multiprocessors, better interface to work on multiple platforms and ability to support multiple file types and bit structures. All the latter features correspond to the features of interface. These features are related to the ability of operating system to support multiples platforms. These features enable the software developers to leverage the benefits of various platforms of software development.

The second component consists of compatibility and data security. The compatibility of hardware and software is a critical feature of operating system. Essentially operating system acts as an interface between hardware and software. Data security will ensure that the data residing in the computer is safe and is not vulnerable to cyber intrusion.

The third component is again related to interface and ease of use and installation. Graphical user interface is a tool for users to interact with hardware and software. A better GUI will always facilitate users to use computer system at use. The feature of ease to install is a result of a good GUI.

In sum, the critical features of operating system can be categorized in three segments, namely,

1. Interface with hardware/software
2. Interface with users
3. Data security

The above three broad classification of operating system features have been identified based on the experiential reflection of users. However, the success of

operating system products not necessarily depends on these features, but play a significant role in capturing the market share. Further study can be conducted to analyze the other factors that drive the operating system product market and establish the linkage of the critical features identified through this research.

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Cost and Costing Techniques in Managerial Economics

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Abstract

Cost, price and profit constitute building blocks of costing and pricing process. Accordingly various costing techniques have been devised and adopted for industrial applications. Cost-volume-profit analysis involves the study of revenues and costs of a firm in relation to its volume of sales. Similarly, firms develop an understanding of cost-volume-price-profit abbreviated as "CVPP analysis by supplementary and additional dimension namely 'price'.

This analysis mainly deals with cost-output relationship. Cost calculation precedes price fixation and it is based on composition of cost of product and service. The businessman is interested in the cost that will be incurred in producing a product. Customers do not decide to buy a commodity without having some idea of its making-up of or characteristics. This article highlights different costs for different purposes. It does not cover entire gamut of costs and cost accounting, but uses underlying cost concepts and costing techniques by managerial economists or business managers.

Key words: *Prime cost; Fixed cost; Variables cost; Marginal cost; Overhead cost; Cost unit.*

Introduction

The kind of cost concept to be adopted in a particular situation depends on the business decisions to be made. Cost consideration enters into almost every business decision and it is significant to use the right kind of cost. Therefore, an understanding of the meaning of various concepts is essential for clear business thinking and decision making. Defining and distinguishing concepts are necessary to emphasize (1) that cost estimates produced by traditional financial accounting are not appropriate for all managerial uses and (iii) that different business problems call for different kinds of costs. Different combinations of cost ingredients are appropriate for various kinds of managerial problems.

Objective of the Study

Basic concept of cost and costing process are fundamental to business entities – be it manufacturing and service industries, trading houses or any other organisation engaged in any kind of productive and service activities including public utilities such as Communication, Roadways, Railways etc. This article deals with the composition of cost, cost building process and classification and techniques. Also the article brings out the principle and application of managerial costing in industrial enterprises. The article highlights the difference between traditional costing system and marginal costing. Further, it is of interesting

and importance to note that various costs have been illustrated with graphic presentation step by step to enable the readers to understand the features each type of cost with least difficulty.

The primary objective is to study the nature and behavior of costing techniques comprehensively to enable the managers for decision-making and forward planning in various organisations such as manufacturing companies, retail companies, and service industries and so on.

Review of Literature

Cost Accountants usually define costs as resources sacrificed or foregone to obtain benefit in any form – goods or services. Cost is measured in monetary units (rupees). Cost of a product can be understood as "aggregate price of various inputs or factors of production used in manufacturing a product".

Cost is determined by various factors and each of these has significant implications for cost decisions. The most significant determinant is prices of factors of production (we would use factors of production and inputs interchangeably). The price of inputs is incontrollable, as they are largely determined by the external environment of any industry. Cost means the price paid for something; economic sacrifice measured in terms of standard monetary unit incurred as a consequence of a business decision to achieve a specific objective. Moreover the managerial efficiency and productivity of these factors is highly related to their cost. Higher the productivity or efficiency, lower will be the cost of production.

Technology is the third important determinant and has the same relationship with cost on the efficiency of inputs. Other things being equal, better technology improves productivity and reduces cost of production. Lastly level of output also affects cost, especially direct cost which varies with level of output, mathematically we can express the cost function as

$$c = f(Q, T, p_r)$$

where c = cost, Q = output, T = technology, p_r = price. Hence determinants of cost comprises of

- prices of inputs
- technology
- productivity of inputs
- level of output

Kinds of Costs

There may be different types of costs incurred by a firm under different circumstances. Costs are considered to be a function of output in economic theory. A managerial economist's concept of cost does not necessarily coincide with that of accountant.

Let us explore various types of costs.

Accounting Costs

Financial management including accounting, auditing and costing recognizes only money costs or nominal costs that can be recorded in the books of accounts. Hence, they are also referred to as accounting costs. For purpose of accounting only, such costs are considered which can be identified, measured and accounted for.

Example: Cost of raw materials, wages and salary, interest on loans and capital costs like cost of the factory building and equipments and overheads like electricity, telephone calls etc. All these costs are termed as explicit costs.

Implicit Costs

Implicit costs do not involve actual payment or cash outflow or reduction in assets.

Sunk cost

A sunk cost is an expenditure made in the past that cannot be changed and over which management has no control.

Historical cost

Those are the costs which are ascertained after these have been incurred. Historical costs are thus nothing but actual costs. These costs are not available until the completion of the manufacturing operations.

Classification of Costs

The subject matter of this article deals predominantly with the various types of costs and classification, their

behaviour, uses and application in decision-making and future planning by business managers.

Direct Costs

Costs are classified into direct costs and indirect costs on the basis their identifiability with cost units. Direct costs are those that can be attributed to any particular product or activity or jobs or process cost or cost centres. Direct costs are associated with (a) Direct materials (b) Direct labour and (c) Direct expenses.

Examples of Direct materials:

i) Steel in machines
ii) Clay in bricks
iii) Cloth in garments
iv) Timber in furniture
v) Lime-stone in cement
vi) Paper in books etc.

Direct Labour

Labour is the cost of remuneration (wages, salaries, commissions, bonuses) of the employees of an undertaking. That is, direct labour cost consists of wages paid to workers, directly engaged in converting raw materials into finished products. These wages can be conveniently identified with a particular product, job or process.

Examples for Direct Labour

i) Machine operator
ii) Shoe maker
iii) Carpenter
iv) Weaver
v) Tailor
vi) Assembly operator and so on

Indirect Materials

Indirect materials are those materials which cannot be conveniently identified with individual cost units. These are less important and inexpensive materials. These items do not physically become a part of the finished product.

Examples

i) Lubricating oils
ii) Sand paper
iii) Nuts and bolts
iv) Small tools
v) Office stationery
vi) Cotton waste and so on

Indirect material costs are the costs associated with such items mentioned above (2.2.1).

Indirect Labour

It is of general character and cannot be conveniently identified with a particular cost unit. Simply put, indirect labour is not directly engaged in the production operations but only to assist or help in production operations.

Examples: Supervisor, Inspector, Cleaner, Clerk, Peon and Watchman.

Indirect Labour Cost

Indirect labour costs are those costs that are associated with indirect workers mentioned above.

Expenses

Expenses are classified as 'direct expenses' and indirect expenses.

Direct Expenses

Direct expenses are those expenses which can be identified with and allocated to cost centres or units. Direct expenses are also known as chargeable expenses.

Examples:

i) hiring of special plant for particular job;
ii) travelling expenses in securing particular contract;
iii) cost of patent rights;
iv) experimental costs;
v) cost of drawings, designs and layout;
vi) royalty paid in mining;
vii) depreciation

Indirect Expenses

All indirect costs other than indirect materials and indirect labour costs are termed as indirect expenses. These cannot be directly identified with a particular job,

process or work order is common to cost units or cost centres.

Examples: Rent and rates, depreciation, lighting and power, advertising, insurance and repairs, internal transport.

We shall now proceed to the next level of costing process in an undertaking. Briefly stated are the various terminologies and description thereof.

Prime cost

This is the aggregate of direct material cost, direct labour cost and direct expenses.

Prime cost = Direct material cost + Direct labour cost + Director expenses

Overhead Cost

This is the aggregate of indirect material cost, indirect labour cost and indirect expenses.

Overhead cost=Indirect material cost+Indirect labour + Indirect expenses

Production overhead

This is also termed as factory overhead, works-overhead or manufacturing overhead; these are those overheads which are concerned with the production function. It includes indirect materials, indirect wages and indirect expenses in producing goods or services.

Office and Administration Overhead

This is the indirect expenditure incurred in general administration function. These overheads are of general character and have no direct connection with production or sales activities, office administration overhead comprises of:

a) Indirect material: stationery, postage, brush etc.

b) Indirect labour: salary of office staff, salary of managing director, remuneration of Directors of the company.

c) Indirect expenses: Rent of office building, legal expenses, office lighting and power, telephone expenses, depreciation of office furniture and equipment, office air-conditioning, sundry office expenses.

Selling and Distribution Overhead

Selling overhead is the cost of promoting sales and retaining customers. Example: Advertisement, samples and freegifts, salaries of salesmen etc.

Distribution cost includes all expenditure incurred from the time the product is completed until it reaches its destination/customers. Further S & D overhead comprises of

a) Indirect materials : packing materials, stationery, cost of samples, price list, catalogues, oil and grease for delivery van etc.

b) Indirect labour: Salary of sales manager, salary of sales office staff, salary of warehouse staff, salary of drivers of delivery vans etc.

c) Indirect expenses: Advertising, travelling expenses, showroom expenses, carriage outward, rent of warehouses, bad debts, insurance of goods in transit etc.

Cost Classification from Managerial Economist's Perspective

Basic types of costs discussed above and their understanding find universal application in business function. Managerial economist's point of view, these costs are categorized as:

1) Fixed cost and
2) Variable costs

Further, marginal cost and its principle finds application in the study of marginal costing techniques.

We shall study these costs composition, behavior with respect to total cost and average cost with the help of graphic presentation. Costs behave differently when level of production rises or falls or exhibits upward trend or downward trend. Certain costs change with production level while other costs remain unchanged regardless of volume of production. Thus, on the basis of behavior (variability), costs are classified into Fixed and Variable costs. These costs are studied under total costs and average cost concepts.

Fixed Costs

These costs do not change with the change in level of production, that is, these do not increase or decrease when the volume of production changes; it can be stated numerically that fixed costs amount say ₹ 10,000 remains constant whether firm produces 10,000 number of products, 20,000 or 50,000 numbers (in the case of short-run production function, or up to a certain limit of production capacity).

Variable Costs

These costs tend to change in direct proportion to the volume of output. Simply put, when volume of output decreases, total variable costs also decrease and vice versa.

Marginal Cost

Marginal cost is the change in total cost due to a unit change in output. Simply put, it is the cost of an additional unit of production. Having recourse to differential calculus, it can be expressed as the rate of change of total cost with respect to unit change in volume of output. M.C. is one of the most useful techniques available to the management. It guides the management in pricing, decision making and assessment of profitability. It reveals the interrelationship between cost, volume of sales and profit. It classifies costs into fixed and variable and only variable costs are charged to products. It does not include fixed expenses. Marginal costs are also known as direct costing or variable costing or incremental costing (according to some authors).

Total Cost

Total cost is the aggregate cost of fixed costs and variable costs.

Average Cost Concept

Average cost is cost per unit of output. We can derive Average Fixed Cost (AFC), Average Variable Cost and Average Total Cost (ATC or AC) from Total Fixed Cost, Total Variable Cost and total Costs, respectively.

AFC is fixed cost per unit of output; it is equal to TFC divided by total units of output at each level of production output.

AVC is variable cost per unit of output and it is equal to TVC divided by total units of output. AC is total cost per unit of output and is equal to Total Cost divided to total units of output at each level of production schedule.

Graphic Presentation of Cost and Output Relationship

Scope of business economics covers a number of concepts and principles relating to cost, demand, pricing, profit, production, competition, business cycles etc. Among these factors, cost concept occupies the foremost place. Typically managers are interested in the cost analysis in relation to output. The following cost-output relationships in managerial economics are studied in terms of (1) AFC (2) AVC (3) ATC and (4) M.C. All these are average costs except M.C. are derived from the total cost in each category.

Cost output relationship is studied in three stages viz.,

i) Derivation of Average costs, mathematically

ii) Graphic presentation and

iii) Interpretation and inference

The relationship between cost and output, which is shown graphically, is known as 'Graphic presentation'. It facilitates study of how costs are behaving in relation to volume of output and enables to draw inferences and decision making.

Derivation of Average Costs mathematically

To begin with, let us understand nomenclatures and their abbreviations used in managerial economics:

Total Cost	-	TC
Total Fixed Cost	-	TFC
Total Variable Cost	-	TVC
marginal Cost	-	MC
Average Total Cost	-	ATC or AC
Average Fixed Cost	-	AFC
Average Variable Cost	-	AVC
Total quantity output	-	Q

1. $TC = TFC + TVC$ ... (1)

2. $AFC = \frac{TFC}{Q}$ ... (2)

3. $AVC = \frac{TVC}{Q}$ ... (3)

4. $AC = \frac{TC}{Q} = \frac{TFC+TVC}{Q}$ ... (4)

5. $MC_n = TC_n - TC_{n-1}$ ... (5)

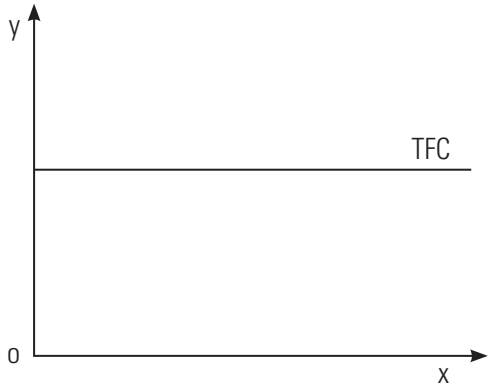
where 'n' is the number of units of output.

Note: [According to definition, MC is the change in total cost per unit change in output. Alternatively it can be expressed as MC is the rate of change of TC with reference to unit change in total output. Applying differential calculus,

$$MC = \frac{Change\ in\ Total\ Cost}{Change\ in\ total\ output} = \frac{d(TC)}{dq}$$

Following are the Graphic presentation of cost curves:

Fig. 1 : Total Fixed Cost Curve



TFC is parallel to X-axis, that is, TFC remains constant (amount is the same) irrespective of increase in volume of output.

Fig. 2 : Average Fixed Cost Curve

Average fixed cost gets diminished as volume of output increase or vice versa. Hence, curve assumes rectangular hyperbola. Mass production and technology together could contribute to this phenomenon.

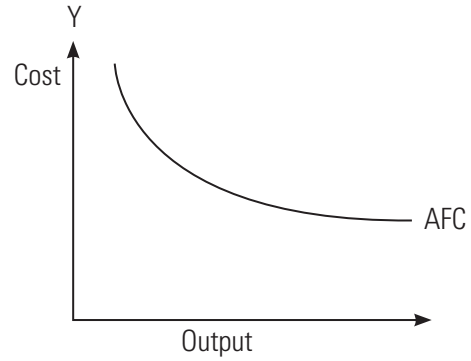
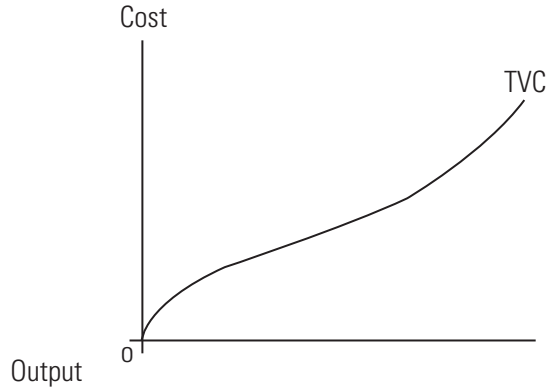
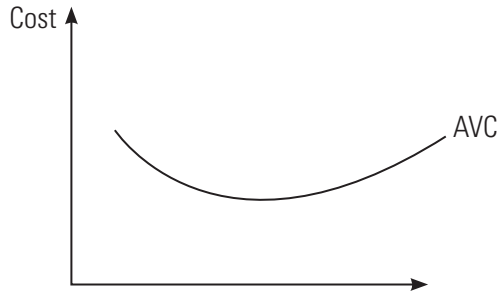


Fig. 3 : Total Variable Cost



Total variable cost comprises of material cost, labour cost and direct expenses. As could be seen, initially TVC rises and then increase at decreasing rate and thereafter rises at increasing rate. This phenomenon is due to the law of variable proportion or diminishing marginal return.

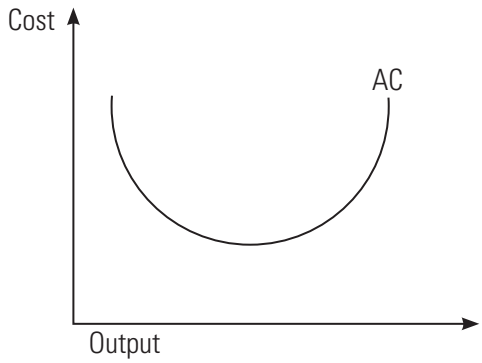
Fig. 4 : Average Variable Cost Curve



The shape of the curve is as a result of law of variable proportion of inputs. In the beginning, both the shapes

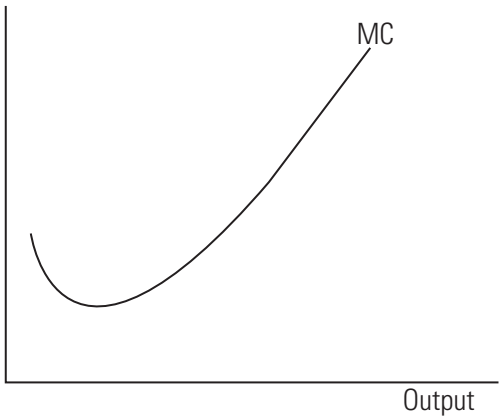
of AC and AVC are the same, whereas, as the output increases, AFC curve slopes downward and AVC increases at increasing rate and its curve slopes upward.

Fig. 5 : Average Cost Curve



We know Average cost is cost per unit of output. Average cost is the vertical summation of AFC and AVC Curves, assumes 'U' shape. It is derived from the aggregate of AFC + AVC measurements. It is a 'U' shape curve due to the principle of law of variable proportion or law of diminishing marginal returns.

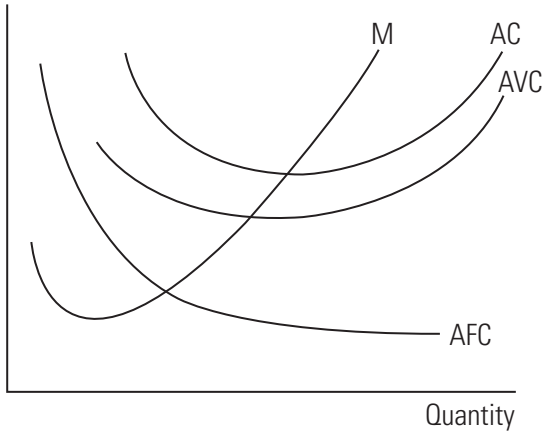
Fig. 6 : Marginal Cost Curve



Drawn below is the joint figure comprising AFC, AVC, AC and MC.

Fig. 7 : Average Cost and MC Cost Curves

Having understood the behavior of the components of the cost and respective curves, let us know how these



costs behave jointly and exhibit relationship with each other. From the figure, we can see that AFC can be plotted as a rectangular hyperbola, asymptotic to the axis. AFC falls steeply at first and then progressively diminishes sloping further downwards, but does not either meet or cuts x-axis.

AVC and AC curves are both U-shaped, reasons for which already explained. Costs decline when there are increasing returns, stabilize with constant return and increase with diminishing returns (output) AC being the sum of AFC and AVC at each level of output, it (AC) lies above both AFC and AVC curves vide F 7 above.

The magnitude of marginal cost is interlinked with changes in average costs. When average costs decline, MC lies below AC, when average costs are at the minimum MC = AC; in other words MC passes through the minimum points of Average cost curves. Finally when AC and MC rise, MC lies above them.

Application of Costing Techniques in Various Business Organisations

Having understood various types of costs and concepts, we shall extend our discussion into the utility of these costs by various business organizations. It can be stated that basic concepts and principles remain the same in all these cases. Option and selection of costing techniques are left to the individual company's policy. Executives have to keep in mind several aspects and parameters based on demand for the product, competition, product substitutes prevailing product's life cycle stage and soon.

Manufacturing Companies

Managers use estimates of product to develop budget for production, materials, labour and overhead. Determines the selling price or sales level required to cover all costs.

Retail Companies

Managers use the estimated cost of merchandise purchases to:

- Predict the gross margin, operating income and the value of the merchandise sold.
- Make decisions about matters such as
    - bidding on future business
    - lowering or negotiating fees\
    - dropping a service
    - estimate revenue
    - manage the organisation's work force

Executives of the organisations

Executives use estimated product cost to:

- predict the gross margin and operating income on sales
- Make decisions about matters such as
    - Dropping of a product line
    - Outsourcing the manufacture of a part
    - Bidding on a special order
    - Negotiating a selling price

Other costs these organizations incur include the costs of

- Marketing
- Distribution
- Installing and repairing
- Supporting delivery of services

Ultimately a company is profitable only when its resources from sales or services rendered exceeds all costs.

Conclusion

The ambit of cost and costing techniques is a wide domain in cost accounting and managerial economics. This article discussed the basic concepts and their behavior with respect to the volume of production; cost and volume of output analysis are essential for profit planning and cost fixation.

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Synopsis - Ph.D. Thesis

Social Marketing Strategies of Successful NGOs- A Strategic Perspective with Reference to Selected NGOs in the States of Karnataka & Tamil Nadu

Vimala Parthasarathy*

Rationale

Governments, especially in developing and emerging economies, are limited in their capacity to promote social development, due to scarcity of resources to handle such a formidable task. The tax base is too narrow to generate adequate funds for a multitude of competing needs. Governments do not have sufficient number of trained staff with a focused approach who can implement social marketing programs effectively at the grass roots level. An important drawback with governments in developing countries is their "multi-layer" or hierarchical approach, characterized by bureaucracy and delay in decision making, which reduces their effectiveness in implementing programs. Unlike the NGOs, which have the capacity to work closely with their beneficiaries, governments are far removed from their beneficiaries.

These circumstances have offered opportunities to NGOs to play an increasingly important role in socio-economic development. Based on experience in other parts of the world, NGOs in developing countries can enhance their effectiveness by applying marketing practices for socio-economic development. While much research has been done in the West in the area of social marketing, the subject is still relatively unexplored in India.

While NGOs in western countries have reached a certain level of maturity and are more preoccupied with larger issues such as awareness of cancer, promotion of a nutritious diet and non-smoking, to name a few, the voluntary sector in India and some Asian economies is still grappling with the more basic issues of poverty reduction, awareness and prevention of AIDS, family planning and availability of clean water. This growing sector and its effectiveness as a supplement to governmental efforts is an important area for study.

The biggest advantages of NGOs as compared to the government and private sectors are their potential to

*Research Scholar, Manipal University, Manipal 576 104. *The thesis was prepared under the guidance & co-guidance of Dr. N.S. Viswanath & Dr. T.V. Raju respectively. The author is grateful to her parents (Smt. Indra & Sri N.S. Parthasarathy)for their total support & encouragement.The thesis was highly commended by the referees for the award of Ph.D. degree in Management. The scholar was posthumously awarded Ph.D. degree in May 2013 by Manipal University.*

contribute in terms of their coverage, their participatory methods of functioning and their ability to reach out to underprivileged sections of the community. NGOs could become highly specialized, in the sense that they could focus on problems that are unique to each community within the country. They can help to make the development process more transparent and accountable. It remains to be seen whether this potentially powerful instrument of social development is able to function to its potential, using social marketing principles to achieve its objectives, as has been done successfully in other parts of the world.

There is a paucity of research on the functioning and role of NGOs as such, and on the application of social marketing practices. This was revealed by enquiries with the Heads of Departments of Management Studies of the universities of Madras, Mysore, Annamalai and Vishakapatnam (December 2008). This study therefore seeks to research and explore an area that does not seem to have received much attention so far.

Area Chosen for Study

The study will focus on the southern states of Tamil Nadu and Karnataka, based on talks with experts that indicate that these are fairly representative of NGOs across the country. Based on available statistical information from the website of the Planning Commission (indicating a total strength of 16976 NGOs in the country), Tamil Nadu, with 1209 functioning NGOs, ranks among the first four states and Karnataka with 727 NGOs, ranking eighth in India, is positioned neither among the intensive NGO active states, nor among the low activity states. It is positioned somewhere in the upper middle of the national spectrum. Therefore, taking Karnataka and Tamil Nadu for the study was considered by experts who were consulted, to represent a good profile of the active and potentially active areas of the country.

Research Objectives

The primary objectives are as follows -

i. To analyze the traits and marketing strategies of NGOs and assess their relative impact upon the organization's effectiveness, resource utilization and overall achievement.

ii. To evolve from the above, the success factors, benchmarks of effectiveness and a social marketing model.

The secondary objectives are as follows -

i. To assess and measure to the extent feasible, the cost of delivery of services, in relation to the objectives of social programs.

ii. To identify operational aspects that are sensitive to socio-cultural factors peculiar to each area and to indicate adaptive measures needed for social marketing of programs under different situations.

Hypotheses

Wiebe, G.D. (1952)189 and Kotler (1971) in their early studies on social marketing, stated that "market-like circumstances" are necessary for the application of marketing principles to social development activities. Therefore, hypothesis 1 may be stated as two sub hypotheses as follows –

Hypothesis 1

If "market-like" circumstances are prevalent, marketing principles will be relevant and applicable to social marketing by NGOs.

Sub-hypothesis 1

"Market-like circumstances, namely, the 4 Ps (Product, Price, Promotion, Place), are prevalent in certain NGO activities involving behavior change and promotion of technology, ideas and concepts."

Sub-hypothesis 2

"If market-like circumstances are prevalent, marketing principles will be relevant and applicable to such NGO activities."

The second hypothesis is a generalization of the viewpoint of Walsh, D.C. et al (1993) 179, based on a study of development in the field of public health. Their finding is that programs for public health in the voluntary sector cannot transplant the marketing strategies used in the commercial sphere. What is needed is not standardization but adaptation of marketing strategies

in social marketing, since the circumstances involved in the marketing of ideas and concepts are considerably different from those involved in the marketing of products. Hypothesis 2 may thus be stated as follows -

Hypothesis 2

What determines success in social marketing is not *transfer* but *adaptation* of strategies to suit the circumstances involved in the "marketing" of concepts, ideas and behavioral change.

Social marketing, more than commercial marketing, is all about change of habits, according to Jha, Mithileshwar in *A Manual on Culturally Adapted Social Marketing,* edited by Epstein, Scarlett T. (1999)[80]. Bringing about social changes often means resistance to change which is strongly rooted in culture. Social marketing strategies must be adapted to cultural values, rather than try to change them. The concept of Culturally Adapted Social Marketing (CASM) involves use of marketing and communication strategies that can convincingly overcome cultural barriers to social behavioral change.

Hypothesis 3

Cultural barriers come in the way of behavioral change. Assimilating cultural forces increases the effectiveness of social marketing.

While the first three hypotheses are concerned more with the effectiveness of the social marketing strategies of NGOs, the fourth hypothesis argues that the best predictors of the organization's sustainability through its ability to raise funds are its institutional image, reputation for effective delivery of services and its legal identity. This hypothesis is based on the findings of Tandon, Rajesh (2002)[158], who pointed out some of the difficulties faced by Indian NGOs in raising funds. Currently the NGOs that are registered under the Society and Trust Act are clubbed along with other voluntary organizations such as clubs, schools and hospitals. They do not enjoy a separate legal identity that demands compliance with reporting and disclosure standards.

Hypothesis 4

The fund raising ability of NGOs is a function of identity with societal forces and the status of legal recognition.

Hypothesis five links the fixed costs of an NGO to the effectiveness of their social programs. As a thumb rule, the incidence of fixed cost is an indicator of the cost of delivery, heaviness of its overheads and marketing efficiency. This inference seems permissible, based on the findings of Vaidyanathan, R (2005)[175] regarding NGO accountability, costs and expenditure. He is of the opinion that due to high fixed costs of Indian NGOs, much of the money is being absorbed for their overheads, instead of being spent on the beneficiaries, thereby reducing the effectiveness of the social programs.

Hypothesis 5

High fixed costs of NGOs adversely affect the effectiveness and continuation of social programs.

Yet another success factor that remains to be tested by the study is the nature of the relationship maintained by the NGO with its stakeholders. The primary stakeholders of an NGO are the government, the beneficiaries of the social programs and the benefactors, or the funding sources. Raval, Dinker et al (2007)[134] advocate what they call "relationship oriented" social marketing strategies, which in their opinion are more durable and sustainable than strategies that are "transaction based."

Hypothesis 6

Performance of successful NGOs is influenced by the quality of relationship they have with their stakeholders.

Apart from identifying success factors, one of the main objectives of the study is to determine some of the traits of successful NGOs. Successful NGOs are characterized by style of leadership.

Hypothesis 7

The success of an NGO is due to its leadership style.

The next hypothesis makes an assumption that successful NGOs are those whose marketing strategies are developed within the framework of the overall corporate strategy and which take into consideration factors in the macro environment. These include social, economic, cultural, political and legal factors. In other words, marketing strategies cannot be formulated in isolation.

Hypothesis 8

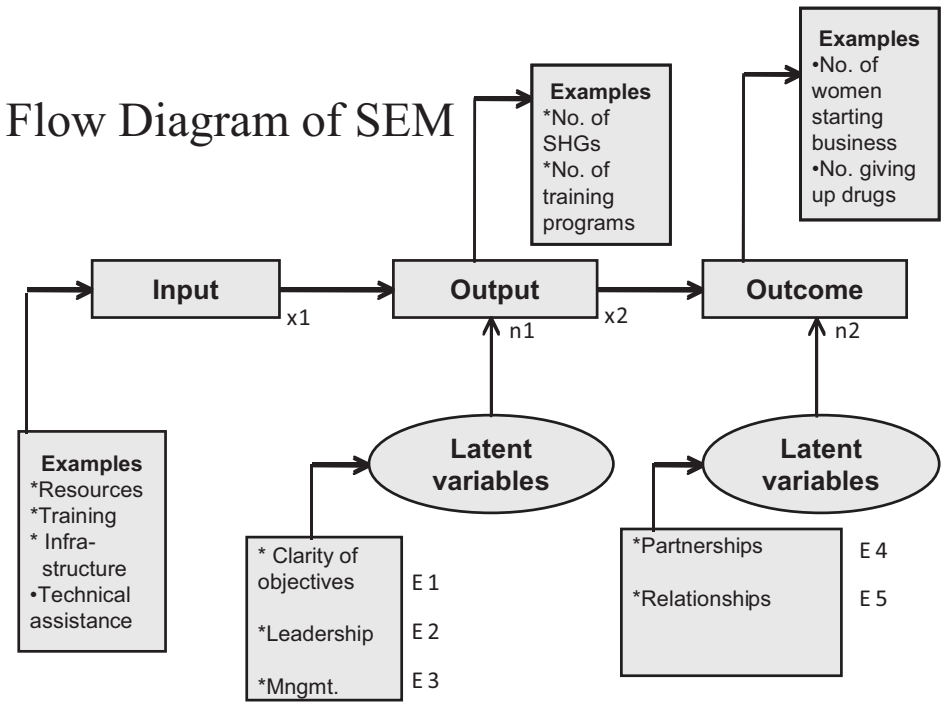
Strategies of successful NGOs are drawn from the organizational and societal framework.

Since formulating the above mentioned hypotheses, based on an extensive survey of available literature and research studies, it has been possible to develop specific hypotheses related to factors affecting performance effectiveness of socio-economic projects, following the "Structural Equation Model". The starting point for developing this model is the LogFrame (Logical Framework) Matrix or Analysis, used by many international financing institutions for assessing performance of socio-economic projects. There are three components in the Matrix – 1) Input, or what is put into the organization (for example, resources, training, infrastructure, technical assistance), 2) Output, or what the organization puts out (for example, number of brochures or training programs, or number of Self Help Groups formed) and 3) Outcome, or impact created by the Output or what comes out of the Output (for example, number of loans received, women starting businesses, or children enrolling in schools). According to the Matrix, Input influences Output, which in turn influences Outcome. Ideally, according to the LogFrame model, NGOs need to measure performance effectiveness not only in terms of Outcome, but also in terms of Output. Output measures the immediate (short-term) effectiveness in terms of means adopted to create the desired impact and Outcome measures the eventual (long-term) impact, which, ideally, is sustained even after the project support is withdrawn.

The Structural Equation Model was developed in three stages – i) Identifying the relevant variables, including quantitative variables, dependent and independent variables and latent or unobserved variables that have a bearing on any of the three components described above. ii) Developing a flow diagram to illustrate how the variables are linked together and iii) Developing equations indicating the relationship between these variables, from which hypotheses could be derived.

The flow diagram below shows the different variables and how they are linked –

The following hypotheses are made, based on the flow diagram –



Hypothesis 1

Input size significantly influences output.

This implies that the amount of resources in terms of funds or expenditure would determine both the quality and quantity of output, as measured by the quality and number of training sessions, for example.

Hypothesis 2

Output significantly influences outcome.

For example, it is expected that the number of SHGs formed would determine the number of women entrepreneurs starting their own businesses.

In addition to the variables in the LogFrame Matrix, there are other "latent" variables that could also have a bearing on either output or outcome, as specified in the flow diagram. These latent variables include marketing related traits, some of which are specific to social marketing. The following hypotheses are based on these latent variables.

Hypothesis 3

Clarity of objectives leads to significant output.

Specifying objectives is a part of marketing planning and is applicable to social marketing as well. Unless the social marketing organization is clear about what they want to achieve, they cannot design the right number and quality of training programs, message leaflets, etc. to be able to achieve success.

Hypothesis 4

Leadership style significantly influences output.

The quality and quantity of output are both affected by the type of leadership, which may range from a democratic to an autocratic style of leadership.

Hypothesis 5

Quality of management significantly influences output.

Similarly, the way the organization is run would decide how quickly and efficiently the outputs are created.

Hypothesis 6

The purpose of the partnership significantly influences outcome.

Partnership is one of the important Ps of social marketing and refers to networking and alliances with other organizations. Alliance with another NGO, private sector, or the government will lead to better geographical coverage and functional sharing, if the purpose is to combine strengths to create better impact.

Hypothesis 7

The type of stakeholder relationship influences outcome.

This refers to "Publics", which is another important "P" for the success of social marketing. A relationship based on involvement of stakeholders, particularly the community, opinion leaders and local bodies, would go a long way in creating better impact through unity of message and an environment favorable for success. This would involve using a participatory approach, whereby the NGO works in close consultation with the community in designing and implementing their programs.

The hypotheses identified above will be tested separately and linked with the overall hypotheses stated earlier.

Definition and Scope of Social Marketing (SM)

SM is engaged in the complex task of transforming human behavior and practices. Two concepts underlying SM are "sustainability" and "institutionalization."

Sustainability means that the change has to voluntarily be maintained without the prop or support of the organization. It is easy to bring about a one-time change in behavior, but more difficult to sustain that change.

Institutionalization means getting local organizations (e.g. village panchayats or groups) to take over the social marketing process, so that it continues even when there is no financial and strategic support from outside agencies. It involves capacity building or training local staff and organizations in critical marketing skills.

Hoffman, Jeffery (2006)[69] defines SM in terms of the following eight "P"s by citing the example of a water management project.

a) Product – The "product" is the concept of using water in a conserved manner. The target audience must be made to realize that there is a problem and to "buy" the habit of careful use of water as a solution to the problem.

b) Price – It refers to the "cost" of obtaining the product, which could include the time, effort and inconvenience involved in adopting the new practices.

c) Place – This refers to how the target audience is reached with relevant information or training.

d) Promotion – In social marketing, the integrated use of advertising, personal selling, sales promotion techniques and public relations helps to create greater awareness and sustain behavior.

e) Publics – These are the internal and external stakeholders involved in the social marketing campaign. The external publics include the government and policy makers, the beneficiaries of the program and the funding sources. The internal publics are those who are involved in the implementation of the social marketing program. Their commitment to the marketing program increases the chances of success.

f) Partnership – The task of bringing about social change is too complex to be undertaken by a single organization. Therefore, social marketers need to partner with other agencies and organizations with similar goals, so as to achieve maximum impact.

g) Policy – Social marketing programs may be successful in bringing about change in the short run. However, unless the policy environment is conducive, it is unlikely that the behavior change will sustain over the long term. Therefore, social marketers need to assess the current policy environment and try to either adapt to the current policy environment, or lobby for policy changes, to enhance the success of their social marketing programs.

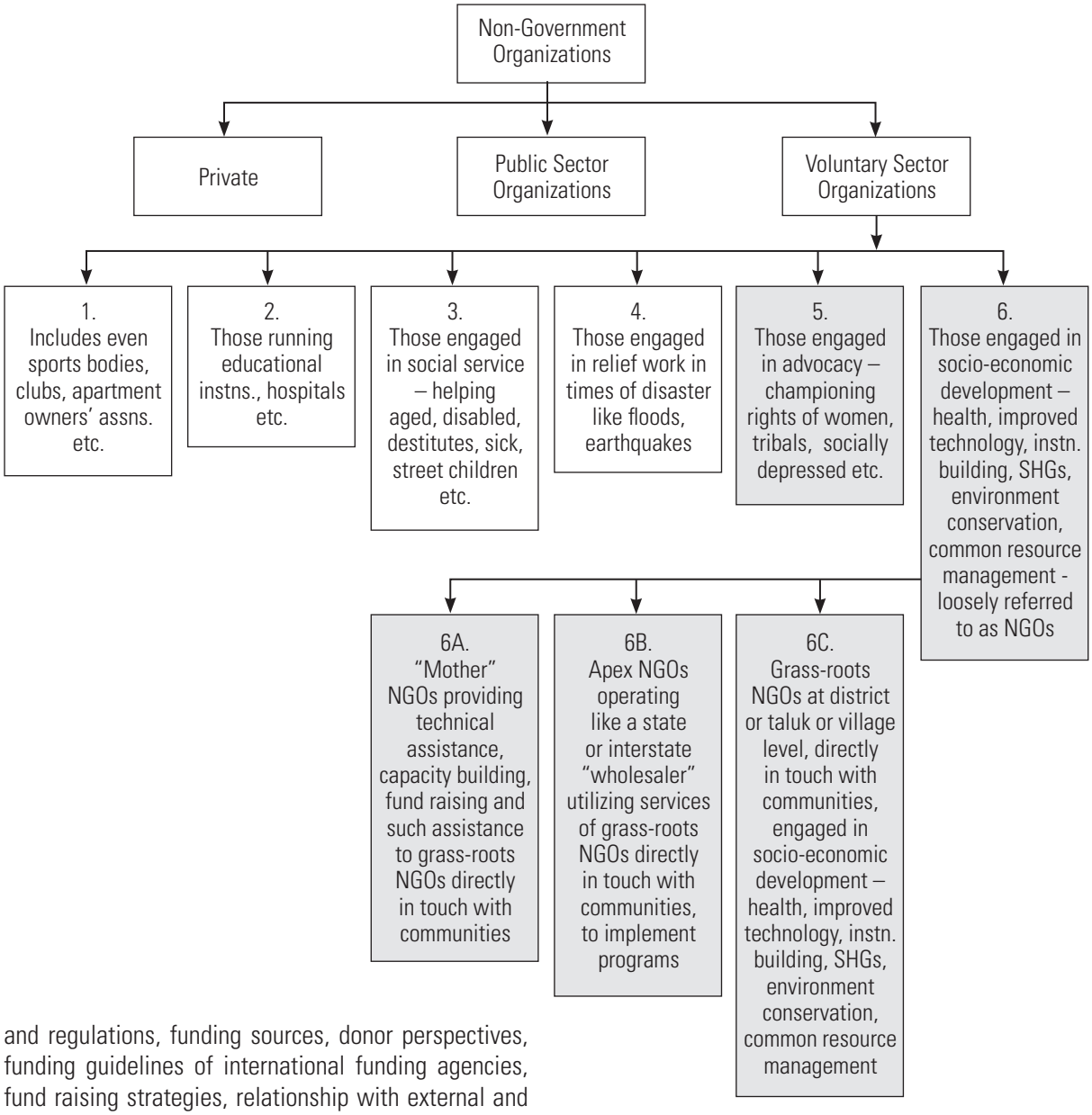
h) Purse – The success of the social marketing program depends largely on the extent of funds available, as well as the continuity of funds. Social marketers need to develop effective fund raising strategies.

As opposed to commercial marketing, SM has to overcome negative demand in the sense of resistance to an idea. Social marketers often deal with highly sensitive social issues, which are likely to offend cultural sensitivities. In order to be successful, they have to understand and adapt strategies to cultural norms. Social marketers bring about changes that lead only to invisible benefits and that too in the relatively longer run. SM does not always lead to direct benefits. Energy conservation and observance of traffic rules are examples of change that lead to benefits to society at large, of which the individual is a part.

The scope of this study is limited to those organizations that are engaged in socio-economic development and not in social service. See diagram Next page.

Literature Review

The study was initiated with an extensive survey of available literature on the subject to gain insights into the various aspects of social marketing and the activities, problems and practices of the voluntary sector, as dealt with in scholarly articles, research findings, case studies, reports of institutions concerned with this sector and news items. This preliminary exercise helped to identify ideal practices for success, as well as the pitfalls that lead to failures. The exercise also became the basis for designing the questionnaires for the field survey. A wide range of social marketing aspects and the functioning of the voluntary sector was covered by the literature survey, as indicated by the following list – history and growth of the voluntary sector, legislative requirements under Indian conditions, typical structure of NGOs, role of NGOs in rural development as visualized in the Five Year Plans, trends in NGO activities, NGO role in water issues, micro financing and poverty alleviation, strengths and weaknesses of NGOs in India, scope and potential for involvement of NGOs in World Bank activities, relevance of social marketing in the voluntary sector, various service delivery models, government policies



and regulations, funding sources, donor perspectives, funding guidelines of international funding agencies, fund raising strategies, relationship with external and internal stakeholders, success and failure factors, success stories, models and case studies.

A few other aspects requiring special emphasis are dealt with in the following paragraphs.

Types of NGOs

In developing countries, the types of NGOs in the voluntary sector are broadly as follows – (a) grassroots, or frontline NGOs are those that work directly with local communities (b) larger or apex NGOs that deal with communities through grassroots NGOs (c) support NGOs provide services such as capacity building to grassroots NGOs (d) funding NGOs focus on funding grassroots and support NGOs.

Measuring Performance

Measuring performance in SM is more difficult than in commercial marketing, since the result to be evaluated

is collective behavioral change. Expectations and results in commercial operations can be quantified as sales, profits, costs or similar measurable values. The absence of standard and established performance indicators for NGOs makes the task difficult. A tool developed in the US and adapted by several donors is the Logical Framework Analysis. This model breaks up different components of socio-economic projects into inputs (resources) outputs (activities) and outcome (achievements).

Funding and Accountability

Corruption and poor efficiency in use of funds have been one of the main obstacles to receiving funds from international donors (World Bank Report 1995[192]). Accountability is one side of the coin and is system oriented. On the other side, what is needed is a constant flow of information and images that strengthen the stakeholders' perception of the NGO. This calls for "image marketing", which is the other side of the same coin. Image marketing is in effect, "backward marketing", as opposed to the "forward" part, which engages in behavior transformation among the target segment. Scholars emphasize that "building a donor constituency" is an important marketing function of the voluntary sector.

Scholarly articles cite poor image and lack of credibility of NGOs in developing countries as one of the biggest obstacles to fundraising. Good governance, combined with accountability and image building is needed to ensure continuous fund flow. Image marketing is crucial for financial sustainability. Image marketing to potential donors is as important as marketing new practices to the target community to bring about behavior change. (for sustainability aspects see Figure 4, paragraph 14.13)

The stakeholders' perception of accountability is summarized below, on the basis of the model provided by Keating and Frumkin (2000)[85]

Culturally Adapted Social Marketing

The concept of CASM suggests that marketing strategies should be adapted to the cultural context in which they are developed, since cultural barriers are one of the biggest obstacles to social behavioral change. This process of adaptation calls for pre-project research to understand the needs, beliefs and practices of the target community and incorporate them into the program theme, design and implementation.

Sustainability

There are two different aspects of sustainability for NGOs. First, the objective of NGOs is to bring about sustainable social change. This means that the changed practice (for example, giving up smoking or adoption of prescribed sexual habits) has to sustain without the support of the external organization in the post-program phase. In other words, the change should be permanent. The second aspect of sustainability relates to the sustained ability of the NGO itself to continue to pursue its mission.

Stakeholder	Accountability Perception
Donor	Effective use of funded resources - ensuring there is no diversion – Sustainability of the impact in the post-project phase
Government	Monitoring for ensuring that funds are not used for non-authorized purposes – Ensuring that there is no incompatibility with public policies and schemes
Target Beneficiaries	Voice in designing the Program – Program contents are culturally compatible – adoption of new behavior is worth the change
Field and Management Staff	Training to handle the "marketing" – adequate support facilities and tools are available – participation in designing the Program – realism in objectives and targets
NGO Promoter	Ensuring continuity and adequacy of funding – reasonable freedom in programming and operation – acquiring good image through creating sustainable impact

Methodology

Secondary and primary researches were used as part of the research methodology. Various secondary sources such as related books, journals, theses and dissertations of both Indian and foreign universities, websites of NGOs, NGO federations and organizations, the World Bank and NGO directories were consulted. Discussions were also held with experts in areas relevant to the study. As a result of the secondary research, in addition to accessing 60 websites, it was possible to gather well over 200 references, out of a search of over 300 references of scholarly articles, papers presented at conferences, reports, books and articles. These references were then listed and numbered.

Secondary research was used to compile the universe and select the sample. As a first step in sample selection, the universe of NGOs in the selected States of Tamil Nadu and Karnataka had to be compiled. This proved to be a difficult task, since there is no single, reliable, authentic and consistent source of information on NGOs in India. From available data, voluntary organizations engaged in socio-economic development were isolated. The number of such NGOs in Tamil Nadu and Karnataka, was 365 and this formed the initial universe of NGOs. Since the proposed study focuses only on organizations doing social marketing, this list had to be further narrowed down, by excluding those organizations that were engaged in social service. The final sampling frame boiled down to 67.

For the selection process, a multiple factor profile, based on seven main criteria, was prepared for the NGOs, assessed and weighted by 40 experts – 20 academicians and 20 management professionals. These NGOs were rated on these criteria and scores were computed as a basis for the final sample. They assigned relative weightages to these criteria. The average weightage for each of the seven criteria was calculated and this formed the basis for profiling the NGOs.

The next step in the sample selection procedure was to rate the NGOs in the universe on each of these criteria. This was an elaborate exercise, which was carried out by searching websites to gather detailed information. An objective five point rating/classification scale was developed for this purpose . The average weightage for each criterion was then applied to the rating of each NGO on each criterion, in order to arrive at a score for each NGO. Thus, for each NGO, a total score was computed. The coefficient of variation was then calculated for each NGO, in order to assess the degree of balance in the overall effectiveness of each NGO on the various criteria. The NGOs were ranked in descending order from the highest score to the least score (with the highest score being the best) and from the lowest coefficient of variation to the highest coefficient of variation (with the lowest coefficient of variation being the best). The two rank values were then combined. Based on the combined rank value, the NGOs were finally re-arranged, from the least combined rank value to the highest combined rank value (with the least combined rank value being the best). The ranking procedure allowed enough flexibility, without introducing bias, in selecting the sample for the study. Such flexibility was needed to deal with possible reluctance of the selected respondent to cooperate in sharing information and to avoid going through the whole selection procedure all over again. Fortunately, in actual practice, all the selected respondents extended cooperation in providing and sharing information within the constraints of their policy on such matters.

The profiles of the ten NGOs selected by the sampling procedure detailed above are in the main text in tabular form.

Primary Research

The primary research included both quantitative research in the form of a survey using a structured questionnaire with closed ended questions, as well as qualitative research using techniques such as observation and depth interviews. Since the study is a three dimensional one that involves assessing the perceptions of NGOs, donors and experts, both the quantitative and the qualitative research had to be designed in such a way as to gather information from all these three respondent categories.

Questionnaire Design

The questionnaire was minutely tested against what was "promised" in the protocol submitted to the

university. The hypotheses, objectives of the study and other outcomes listed in the synopsis were extracted and formed the basis for design and test of the questionnaire. These issues were then grouped under various categories - background information on the respondent, role, objectives, programs, measuring program effectiveness, application of social marketing practices (if any), relationships, image of the organization, leadership and management, capacity building, fund raising, sustainability and accountability.

As a next step, the questionnaire was pre-tested with four NGOs/experts, for both contents and interview methodologies. Based on the feedback, refinements were carried out. A copy of the final modified questionnaire is attached.

A separate, simpler questionnaire was also prepared for donors/funding agencies and for experts, in order to assess their perception of various aspects covered in the main questionnaire. This is also attached.

Qualitative Research

While the questionnaire and interviews helped to shed light on the various aspects of functioning of the NGOs in the sample, they did not record information on qualitative aspects emerging at the interviews, such as the attitude of the respondents, their personality traits, body language and some indication of the type of leadership style. In this connection, it may be mentioned that fortunately, access to the CEO or equivalent senior level official was possible on behalf of every respondent. Extensive field notes made by the interviewer in the course of the interviews on such aspects were incorporated, by developing a comprehensive, numerical five point rating scale, which would enable the data to be quantified.

Depth Interviews

In addition to the questionnaires developed for the NGOs, experts and donors that generated a lot of discussion and rich information, a question guide for conducting separate one-to-one depth interviews with NGO experts/donors was designed. The purpose of these interviews was to incorporate "phenomenological" research into the qualitative research design, whereby the experts were asked to describe their personal experiences of phenomena related to the NGO sector. These interviews included probing questions to gain additional insights into the sector from the experts. The responses were analyzed and integrated with the quantitative data.

Integration of Qualitative and Quantitative Research

Since social marketing is primarily concerned with behavioral change, research into its effectiveness would not be complete with gathering data of a quantitative nature from surveys and structured questionnaires. In order to gain deeper insights into complex behaviors and unconscious motives, qualitative methods such as focus groups, depth interviews and observation would be needed to supplement quantitative research and to extract rich information. An integration of the two approaches is advocated, especially for socio- economic situations, by Weinrich, Nedra Klein, (1996)184 in a scholarly article, for their very divergence of approaches which has the effect of complementing each other.

Although quantitative and qualitative researches have their relative strengths and weaknesses, combining the two methods in a single research study helps to get the best of both approaches. Quantitative research has the ability to measure opinions, facts, awareness, and other data which can be gathered through pre-determined questionnaires, quantified and analyzed through statistical tests for proving or disproving various hypotheses regarding the relationship between variables. The results of the sample may also be generalized to a larger population. However, the disadvantage of this research method, according to Weinrich, is that it "decontextualizes" human behavior, or studies it in an artificial context, ignoring the influence of variables other than those specified.

Qualitative research on the other hand helps to understand the target audience's psyche. Since it is unstructured and is conducted in a more free-wheeling manner, it helps to provide richer information on situation specific behavior and the meanings that people assign to social phenomena. The disadvantage of qualitative research is that the data gathered cannot

be quantified and analyzed and that measurement of data is subjective, depending on who conducts the research. It requires highly trained investigators to conduct the research in a skilful manner.

The current study aims at a holistic approach by integrating both the above types of research for greater depth of understanding and a higher degree of generalizability to a larger population.

Procedure for Developing Benchmark Matrix

One of the main objectives of the current study is to identify the traits of successful NGOs, with a view to establishing benchmark practices and a social marketing model for others to follow. In this regard, fifteen different marketing related traits or benchmark criteria were identified – Marketing Concept, Market Analysis, Marketing Planning, Social Marketing Strategy – Product (Program), Social Marketing Strategy - Promotion, Social Marketing Strategy – Place (Delivery of Services), Social Marketing Strategy - Policy (Government Relations), Social Marketing Strategy - Publics (Stakeholder Relations), Social Marketing Strategy – Purse (Funding), Social Marketing Strategy – Partnerships (Networking and Alliances), Institutional Image, Marketing Capacity Building, Marketing Evaluation, Monitoring and Control (Performance Measurement), Sustainability and Management and Leadership.

The above traits were based on research findings elsewhere, including other parts of the world, scholarly articles, World Bank recommendations, as well as the insights of a senior marketing expert. In addition, nearly ninety different checkpoints or sub-traits were identified for all the criteria.

The second step in developing the Benchmark Matrix was to connect each of the checkpoints or sub-traits to the responses from the questionnaires for NGOs, the observation chart and the post interview notes that were developed for each NGO after the interview. This way, the quantitative data and the qualitative data were integrated.

Next, a scoring method was devised for the answers to the different types of questions – dichotomous or yes/no questions, the questions that involved checking multiple options and the open-ended questions, thus converting responses into numerical values.

The scores for all the ten NGOs in the sample were calculated for the different traits, through a build-up of values for each sub-trait.

The entire procedure is set out in the following flow diagram.

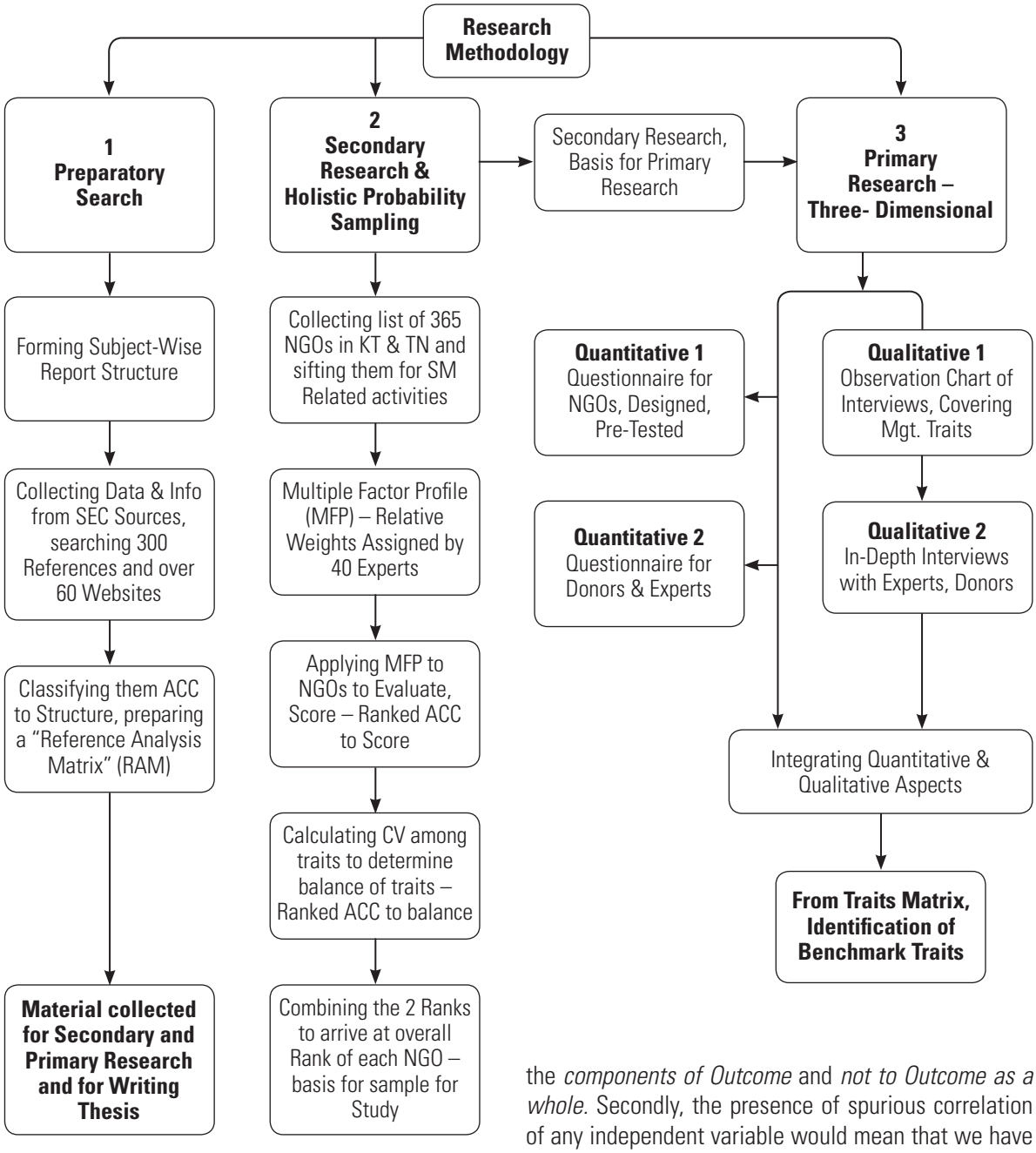
Test Results of Hypotheses and Interpretation

The information in the available data sets including the Benchmark Matrix, the Observation Charts with their qualitative data, the post interview notes and the questionnaire response matrix was subject to statistical tests covering regression, correlation, t test, F test and collinearity, using the SPSS 17.0 statistical software package.

The objective was to test each of the six hypotheses derived from the Structural Equation Model (SEM) outlined earlier in the section on Hypotheses. These specific hypotheses were linked with the earlier list of General Hypotheses derived from a preliminary literature review.

The current data set was subject to validity and reliability tests, which yielded high coefficients as indicated by Cronbach's alpha of 92.6%. This denotes that the current data set used for the analysis is greatly reliable.

The following few observations are necessary as a guide before interpreting the results to test the SEM Hypotheses. First, the basic assumption of the SEM hypotheses that Outcome could be considered as one *consolidated* dependent variable needs to be refined. Since the primary concern is effectiveness of social marketing when we refer to Outcome, there is also need to define what we mean by effectiveness in terms of the individual components of Outcome. The components of Outcome represent the definition of effectiveness. Different independent variables could and indeed would have a different relationship and effect on *individual components* of Outcome and *not on Outcome as a consolidated entity.* If this is so, there are



bound to be situations that require the acceptance of the null in respect of some elements of Outcome and the alternate in the case of some others, depending on the relationship of the independent variable and the dependent variable component. It follows from the above, therefore, that each SEM hypothesis will have to be qualified and interpreted with reference to the *components of Outcome* and *not to Outcome as a whole.* Secondly, the presence of spurious correlation of any independent variable would mean that we have to accept the null even if the F value indicates its rejection.

Applying the foregoing criteria, alternate hypotheses have to be rejected even if so indicated by the F value, if there is spurious correlation and consider it as null. Similarly, the alternate hypothesis would be acceptable only if it is accompanied by non-spurious correlation.

On the above basis, the test results of the SEM Hypotheses are as follows -

a) Level of expenditure significantly influences social marketing effectiveness. As expenditure is dependent on fund availability, it underlines the importance of funds for successful marketing operations.

b) There is no relationship between clarity of objectives and outcome or marketing effectiveness. A possible interpretation is that irrespective of the clarity in the formal statements, a certain sense of purpose and clarity at the actual operational level could influence social marketing effectiveness.

c) Leadership style significantly influences social marketing effectiveness in respect of government relations, ensuring fund availability and striking strategic alliances – the three aspects that are peculiar to social marketing and perhaps indispensable for its success.

d) Quality of Management, like leadership, significantly influences social marketing effectiveness in respect of policy, purse and partnership. As this indicates that management has only a selective influence, we may have to infer that perhaps there are factors other than management that affect the performance and success of other aspects such as program, promotion and service delivery.

e) There is no relationship between connectivity across organizations and social marketing effectiveness. Connectivity being one of many factors, it may not be an important and exclusive influence on social marketing success. Even with good connectivity, weaknesses in other factors could adversely affect success.

f) Relationship, as an independent variable, significantly influences social marketing effectiveness in respect of policy, program and partnership. Stakeholder involvement is important for program concept, design and implementation.

Reconciling General Hypotheses with SEM

Having dealt with the SEM Hypotheses, it is now necessary to explain how the General Hypotheses formulated at the beginning of the study have been covered.

General Hypothesis 1relating to the existence of "market-like" circumstances is not so much of an assumption to be tested, since it is explained in the section titled "Hypotheses" in the text that extensive survey of scholarly articles, experiences of the voluntary sector and research studies are forthright in stating that market-like circumstances are prevalent in the case of NGOs involved in bringing about behavior change for better health, etc. and in promoting technology (e.g. bio gas), ideas and concepts (e.g. rain water harvesting, self help groups, building rural institutions, environment conservation). In the case of such NGOs, their activities do have the elements of Product, Price, Place (Distribution) and Promotion. The responses to the questionnaire also show that all the NGOs interviewed do apply several marketing strategies, although many practise them informally and sometimes without being conscious of the fact that they are marketing related. The above being a well documented and recognized fact, this hypothesis has not been tested further.

Regarding General Hypothesis 2 relating to *adaptation instead of transfer* of strategies and General Hypothesis 3 concerning cultural adaptation, while data is available for the dependent variable in respect of these Hypotheses, gathering specific and detailed information on aspects of adaptation of commercial marketing practices and adjustment for local cultural needs for each of the ten NGOs was beyond the scope and capability of this study. Such detailed information is necessary to assess the extent of adaptation in each of ten cases, in order to be able to subject the data for the two variables to a statistical test. As such, these hypotheses could not be tested and these may well form an extensive and suitable subject by itself for a separate study.

Regarding General Hypothesis 4 on fund raising ability of NGOs, it is to be noted that NGOs registered under the Society and Trust Act are clubbed along with other voluntary organizations such as clubs, schools and hospitals. They do not enjoy a separate legal identity that demands compliance with reporting and disclosure standards. As such, there is neither legal distinction nor

a special status for NGOs engaged in socio-economic development. The assumption was that without this, funding agencies may be hesitant to provide substantial funds. It was also assumed that the fund raising ability of NGOs may depend on certain forces in the macro environment, notably political forces and the government. No reliable data is available on societal aspects for quantification. In these circumstances, an assessment of the effect of legal identity and impact of societal forces on fund raising capacity was not feasible.

General Hypotheses 5 relates to the impact of high fixed costs of NGOs. While the survey was able to collect an indicative range of administrative expenses (fixed costs, as an indicator of efficiency in operation) from the NGOs interviewed, due to the reluctance of the respondents to divulge information on donors and donations (for assessing continuation of social programs), it was not possible to put General Hypothesis 5 to a statistical test.

However, a similar Hypothesis tested conducted in the USA among 2359 NGOs over a few years utilizing information from IRS sources available in the public domain, came to some interesting conclusions. (Strategic Positioning and the Financing of Non-profit Organizations: Is Efficiency Rewarded in the Contributions Marketplace? By Peter Frumkin and Mark T. Kim, The Hauser Center for Non-profit Organizations and The Kennedy School of Government, Harvard University, October 2000, Working Paper No. 2)63

The results of the regression model in that study indicated that "reporting low administrative to total expense ratios and positioning an organization as efficient does not lead to greater success in garnering contributions. In none of the six fields of activity did we observe a statistically significant effect of efficiency on contributions..... They indicate that non-profit organizations that spend more marketing themselves to the donating public do better at raising contributed income".

General Hypothesis 6 that success depends on stakeholder relationship and General Hypothesis 7 that success is due to leadership style are covered by SEM Hypotheses 6 and 3, respectively.

General Hypothesis 8 that strategies of successful NGOs are drawn from the organizational and societal framework is covered by SEM Hypotheses 3 to 6, which deal with different organizational and societal aspects - leadership style, quality of management, connectivity across organizations and relationship with stakeholders.

Benchmark Matrix and Interpretation

One of the main objectives of the current study is to identify the traits of successful NGOs, with a view to establishing benchmark practices and a social marketing model for others to follow. The Benchmark Matrix presents the following:

- Collective score for all sample NGOs for each of 15 marketing traits
- Collective score for all NGOs for each checkpoint (or sub-trait) under each marketing trait
- Scores of each NGO for each of 15 marketing traits
- Scores of each NGO for each checkpoint (or sub-trait) under each marketing trait

The following is a summary of the benchmark traits and responses to the Questionnaire

a) The study indicates that NGOs are relatively weaker in the following aspects as reflected by scores only in the "satisfactory", "moderate" and "poor" ranges – marketing concept, sustainability, program, capacity building and delivery of services – where there is much room for improvement. Analysis of sub-trait scores reveals specific directions offering scope for improvement.

b) Delayed and invisible benefits and their not being felt, although present, were cited as the main difference between commercial marketing and social marketing.

c) The NGOs interviewed were aware of the criticality of overcoming social and cultural barriers, rating these as extremely important.

d) Program theme, design and implementation are mainly influenced by internal management and field staff, community leaders and the general community.

e) As regards communication media, emphasis is mainly on use of non-conventional media such as one-to-one and group meetings and posters

f) The nature of relationship with the government is by and large cooperative

g) In most cases, the time spent on fund raising is continuous throughout the year

h) The reporting relationship is mostly to the Board of Management and funding sources

i) Four of ten NGOs in the sample reported that there was no difficulty in fund raising capacity; where there was difficulty it was mainly due to lack of contacts

j) The need for outside expertise was felt mainly for program impact measurement and communication methodologies

k) Leadership and effective management, contact with community and clarity of objectives were rated the highest as being critical factors for success

Social Marketing Model

NGOs scoring the highest (Benchmark) in respect of each trait were identified and their practices were listed. No single NGO emerged as being the Benchmark model for all or most traits. In the case of the following traits, even the highest score was below the satisfactory level, indicating areas of deficiency –sustainability, program, capacity building and delivery of services.

The actual practices adopted by the concerned NGO for each of the benchmark traits have been specifically identified and listed in the text of the thesis.

Donor, Expert Responses

a) All the twelve respondents (Questionnaire attached) confirmed that marketing practices are relevant to socio-economic development activities.

b) A majority was of the view that funding, especially foreign funding, is determined by many factors and that the application of marketing principles to NGO activities is only one of them. According to one of the experts, the Regional Director of an international NGO with a commercial marketing background, donors currently give more consideration to factors such as the goal of the project and the selection of the appropriate target audience, rather than the method or approach used to achieve that goal. Another factor considered by overseas donors, according to the same expert is partnership with the private sector. Since private sector participation in socio-economic development is likely to increase in future, the expert predicts that social marketing will play a bigger role and that donors may give this factor more importance than at present. A senior manager with the National Bank for Agriculture and Rural Development (NABARD), that provides funds to NGOs engaged in rural development, is of the opinion that factors such as the credibility of the NGO play a more important role in the decision to grant funds than the application of marketing methods.

c) One expert with a Bangalore based NGO in the area of counseling believes that all NGOs apply marketing practices without knowing it and that those applying them in a systematic manner tend to attract more funds than those who do not. Apart from applying marketing principles in their activities, she also emphasizes the need for NGOs to market themselves, or to project the image of the organization more vigorously. This should be done through brand building strategies that make themselves more visible to funders, since high recall and visibility of the NGO, according to her, are factors that are given prime importance by funding agencies. This is particularly essential for the less established NGOs. Such brand building strategies should also focus on building the credibility of the NGO in the eyes of the funding agency. Credibility is particularly important in the Indian context, since Indian NGOs tend to suffer from low credibility and a reputation for misuse of funds. She adds that NGOs need to hire more marketing professionals for the systematic application of marketing principles and brand building strategies.

d) The target group and government at different levels were ranked as the most important among stakeholders.

e) The predominant view is that there is no distinguishing legal identity. There is no national parent body or licensing authority for NGOs. There is no legal framework that binds NGOs and makes them accountable to a central authority.

f) Experience and financial capabilities are rated as the most important traits considered by donors for an NGO.

g) Periodic measurement of impact (outcome) as well as input (LogFrame analysis) is one of the suggestions most often made for assessment of performance effectiveness.

h) For administrative expenses, a range of 8-20% was considered a reasonable limit.

i) Leadership, management and clarity of objectives have emerged as the most crucial factors for organizational sustainability.

j) The respondents were asked to rate the standard of the following specific aspects of management among NGOs in general, not specific to any or all of the NGOs that form part of the sample for this study – effective resource use, measurement of program impact, periodic comparison of progress vs. goals, efforts and systems to ensure cost effective operations and availability of a systematic tracking mechanism for the foregoing.

k) The average rating of around 3 on a 5-point scale showed that NGOs in general in this part of the country have not reached a satisfactory level. This is because while many of them have systems in position, they do not seriously pursue them as an important component of the management process.

Extent to which Study Objectives have been met

- Identify the traits of successful NGOs and analyze their marketing strategies – This has been met (section 20, also Figures 7 and 8, paragraph 20.93)
- Evolve Benchmarks of Effectiveness and a Social Marketing Model – This has been met - see earlier section (section 21, also Figure 9, paragraph 21.25)
- Assess and measure, to the extent feasible, the cost of delivery of service in relation to the objectives of social programs – The percentage of administrative expenditure to total expenditure was a good and readily available indicator of the cost of delivery of services. Out of the ten NGOs studied, only six were in the range of 10-20% and the others were higher. A range of 8-20% was considered by the experts interviewed to be a reasonable norm.
- Identify operational aspects that are sensitive to social and cultural factors peculiar to each area and indicate adaptive measures needed for social marketing of programs under different situations - The main adaptation needed is in respect of program, promotion and delivery of services. Examples of such adaptation by the successful NGOs among the sample are explained in the text.
- Find out the perceptions of beneficiaries, benefactors and other stakeholders: In respect of benefactors and stakeholders, this was accomplished through a structured questionnaire and depth interviews. (section 22)

Suggestions

- Systematic and formal training in marketing techniques and practices using experts may contribute to greater effectiveness. (ref. 19.53 and 20.8)
- Results of Hypotheses tests seem to underline the importance of funds for successful marketing operations and, in turn, the need to diversify fund sources and self generation to ensure continuity. (ref. 19.46, 19.61(a))
- Since leadership style significantly influences social marketing effectiveness, committed, trained leadership seems critical. Programs directed to enhance this aspect would be useful. (ref. 19.48, 19.61(c))
- Quality of Management significantly influences social marketing effectiveness. Therefore, NGOs may have to ensure continuous training to upgrade the quality of supervisory and operating staff. (ref. 19.49, 19.61(d), 20.64, 20.65, 20.66)

- Relationship, that is, stakeholder involvement, significantly influences social marketing effectiveness. As such, NGOs should find meaningful and institutionalized methods of mutual consultation with their primary stakeholders for effective two-way involvement. (ref. 19.51, 19.61(f))

- Delivery of services is an important marketing trait that registered the lowest score among all traits. This aspect needs strengthening through redesigning delivery methodologies to suit cultural and behavioral characteristics of specific segments. (ref. 20.35, 20.36)

- Another aspect that offers scope for improvement is in more specific targeting of different segments through localized program design, communication messages and media. (ref. 20.11)

- The study shows that emphasis seems to be more on upward accountability, while downward accountability to the beneficiaries seems to be inadequate. Even in the case of upward accountability, from a qualitative aspect there seems to be a need for more transparency on utilization of funds, cost effectiveness and achievement with reference to goals. (ref. 20.52, 20.87)

- While importance of projecting the image of the organization is recognized, it is not matched by adequate efforts in this direction. However, image building can be successful only if it is based on credibility and good achievements. (ref. 20.61)

- Evaluating output performance (in terms of efforts in the form of training, brochures, leaflets, meetings, etc.) and performance in terms of outcome are both equally important. Training in outcome measurement methods is needed in order to make it more scientific and systematic. (ref. 20.71)

- Broad basing fund sources and a degree of self-reliance are areas of concern needing correction. (ref. 20.78)

- For organizational sustainability, the donors and experts interviewed in the study ranked leadership, management and clarity of objectives as the most crucial factors. Engagement of professionally qualified managers, including those with sound marketing background and periodic training in leadership would enhance effectiveness. (ref. 22.19)

- There seems to be need for a distinguishing legal identity for NGOs engaged in socio economic development. One of the suggestions that emerged from donors/experts is that there should be some unique ID number / registration for NGOs across the states and that their track records should be available for review and reference. (ref. 22.13)

Limitations

- Out of 1936 NGOs in Karnataka and Tamil Nadu, only about 181 seem to be engaged in socio-economic development and out of these, only 41 provide any access to information about their activity. This restricted the sample size.

- Comprehensive statistical data and information on the activities of the voluntary sector from reliable government sources are not available in the public domain.

- A general reluctance to share financial information and avoid specifics placed a constraint.

Questionnaire Specimen for Interviews with NGOs

This survey may help a better understanding of the effective practices of the voluntary sector in socio economic development. Kindly extend your cooperation. Information gathered by this survey will be used for an overall appreciation. Information furnished in response to this Questionnaire will not be used in any manner that is prejudicial to your interest. Thank you for agreeing to give your time and effort.

A. General Information		
A1	Date/s and Place of Interview:	
A2	Name of Interviewer:	
A3	Name of NGO:	
A4	Phone and website:	
A5	Whom interviewed? Name & designation:	
A6	Geographical coverage of activities:	
A7	Deal directly with target Communities or indirectly through other NGOs/partners: (tick)	Directly / Through NGOs or partners
A8	Approximate amount of annual expenditure: Rs Lakhs	Rs.
A9	Full time staff:	In the office: In the field:
A10	Part time staff/volunteers:	In the office: In the field:
A11	Under which Act of Government are you registered?	
A12	Which year was your organization established?	

B1. Which of the following are covered by your activities?

Check as many as applicable to your situation

a	Social service like care of aged, disadvantaged, street children, destitute women, orphans etc	
b	Running hospitals, schools, other types of educational institutions	
c	Empowerment of dalits, women, tribals, other disadvantaged segments thru income generating activities, SHGs	
d	Work among HIV affected segments	
e	Creating awareness of right sexual habits and of other health related issues	
f	Promoting community management of common resources	
g	Promoting conservation of natural resources and environment	
h	Delivery of special products or services for community health improvement	
i	Promoting change of habits and behavior relating to social, health or environment al concerns	
j	Helping any section/s of society to articulate their needs (advocacy)	
k	Any other (specify below)	

C1. Do you have measureable objectives? That is, objectives that are quantified and compared periodically with progress.

Check only ONE of the following

a	Yes	
b	No	

C2. If the answer to the above question is "yes", please name 2 objectives, in a few words.

Answer:

1.
2.

C3. Do you have a formal statement of mission and objectives?

Check only ONE of the following

a	Yes	
b	No	

C4. If the answer to the above question is yes, can you give a copy please?

D1. Who influences the CHOICE of theme for your major projects?

Check as many as applicable to your situation

a	Government state/central	
b	Local body of the government	
c	Community leaders	
d	General Community	
e	Donors	
f	Mother NGO	
g	Your internal management, including field staff	
h	Any other (specify below)	

D2. Which of the following are involved in DESIGNING your programs?

Check as many as applicable to your situation

a	Government state/central	
b	Local body of the government	
c	Community leaders	
d	General Community	
e	Donors	
f	Mother NGO	
g	Your internal management, including field staff	
h	Any other (specify below)	

D3. Which of the following are involved in IMPLEMENTATION of your programs?

Check as many as applicable to your situation

a	Government state/central	
b	Local body of the government	
c	Community leaders	
d	General Community	
e	Donors	
f	Mother NGO	
g	Your internal management, including field staff	
h	Any other (specify below)	

D4. If the answer to the above questions is (c) and/or (d) indicate how often you are in touch with the target community.

Check only ONE of the following

a	Once in a month	
b	Once in 3 months	
c	Once in 6 months	
d	Once a year	
e	Once in more than a year	
f	Rarely in touch	

D5. What in your view is the most innovative feature of your programs? State in a line or two.

Answer:

D6. This question is only for Apex NGOs
What types of services do you provide your member NGOs?

Check as many as applicable to your situation

a	Training their field staff	
b	Training their supervisors/managers	
c	Extending assistance in fund raising	
d	Extending assistance in preparation of their plans and proposals	
e	Supplying promotional material	
f	Extending financial assistance for infra structure / equipment	
g	Any other (specify below)	

D7. How many programs have been successfully completed in the last three years?

Answer: Number of programs -

D8. How many programs are currently in progress?

Answer: Number of programs -

E1. Do you measure the success of your activities?

Check only ONE of the following

a	Yes	
b	No	

E2. If the answer to the above question is yes, how? - list main criteria used

Criteria

1.

2.

3.

E3. Give one or more examples of effectiveness of one of your programs

Answer:

E4. Do you get feedback on your program methods?

Check only ONE of the following

a	Yes	
b	No	

E5. If the answer to the above question is yes, how?

Check only ONE of the following

a	Feedback is spontaneous	
b	You seek feedback	

E6. From whom do you get the feedback?

Check as many as applicable to your situation

a	Actual beneficiaries at community level	
b	Beneficiary NGOs (if applicable)	
c	Community leaders	
d	Donors	
e	Your field staff	
f	Any other (specify below)	

E7. Can you please indicate what percentage of total expenditure, approximately, is your annual administration expense? (Expenses on staff and office expenses form administrative expenses)

Check only ONE of the following

a	10-20%	
b	21-40%	
c	41-50%	
d	51-60%	
e	Over 60%	

E8. Over the last 3 years, what is the trend of your administration expenses?

Check only ONE of the following

a	Increasing	
b	Decreasing	
c	More or less constant	

F1. It is believed by experts that NGO activity in socio economic development has large similarities with marketing of products and services in the commercial world.

With your experience, do you agree with this statement? In other words, how applicable do you think are marketing practices in your programs?

Check only ONE of the following

a	Not at all applicable	
b	Rarely applicable	
c	Occasionally applicable	
d	Largely applicable	
e	Very much applicable	

F2. If the answer to the above is (a), (b) or (c), can you say why? – In one or two sentences

Answer:

F3. If the answer to the above is (d) or (e), are marketing practices of the commercial sphere applicable as they are, or applicable with changes to suit socio-economic activities?

Check only ONE of the following

a	Commercial marketing practices are applicable in our activity as they are and without any major changes	
b	Commercial marketing practices are applicable in our activity ONLY with suitable changes	

F4. If the answer is (b), what aspects of commercial marketing practices have to be adapted? Can you please name one or two examples from your practices?

Answer: (in one or two sentences)

F5. In NGO type of activity, unlike in commercial marketing, there could be some differences. Which of the following do you think are critical aspects in your experience?

Check as many as applicable

a	Target audience resists change	
b	Benefit may be delayed to the target community	
c	Benefit may not be direct to the target community	
d	Benefit may be invisible and not felt but present	
e	Impact of program may not last, once withdrawn	
f	Any other (specify below)	

F6. Do you use any of following methods in designing and delivering your programs?

Check as many as applicable to your situation

a	Studying the needs of the community before designing the Program	
b	Dividing the market into groups based on needs	
c	Developing services for specific groups	
d	Developing a system for delivery of services	
e	Informing target groups about the program features	
f	Developing a plan of action for a given period of say, one year	
g	Assessing the effect of your program on the target group	
h	Any other (specify below)	

F7. Name three steps in selecting your target audience-

Answer:

1.

2.

3.

F8. Do you adopt any special strategies or practices to ensure the success of you activities? State briefly in two or three lines.

Answer:

F9. By what means do you communicate to your target group about your programs?

Check as many as applicable to your situation

a	Local newspapers/magazines	
b	Printed leaflets	
c	Propaganda vans	
d	Group meetings	
e	Using opinion leaders	

f	Posters	
g	Audio visuals	
h	Radio	
i	Word of mouth	
j	Any Other (specify below)	

F10. Approximately what percentage of your expenditure is used for communication?

Answer: %

F11. Are there any measures to further increase your program effectiveness, other than what you are already using?

Check only ONE of the following

a	Yes	
b	No	

F12. If the answer to the above question is yes, can you name one or two factors that could help to increase program effectiveness?

Answer:

1.

2.

F13. How important are social and cultural features of your target community in affecting your programs?

Check only ONE of the following

a	Least important	
b	Not very important	
c	Somewhat important	
d	Important	
e	Extremely important	

F14. If the answer to the above is (d) or (e), please name 2 examples of how your program design or other practices had to be changed to suit the social and cultural needs of the community.

Answer:

1.

2.

G1. Are you in touch with the government at any level?

Check only ONE of the following

a	Yes	
b	No	

G2. If the answer to the above question is yes, how often do you interact with them?

Check only ONE of the following

a	Once in a month	
b	Once in 3 months	
c	Once in 6 months	
d	Once a year	
e	Once in more than a year	
f	Rarely in touch	

G3. With which level of government are you in touch with?

Check as many as applicable to your situation

a	State govt.	
b	District authorities	
c	Local govt. bodies at community level	
d	Any other govt. body (specify below)	

G4. How would you describe your interaction/relationship with the government?

Check only ONE of the following

a	Co-operative (supporting each other mutually)	
b	Antagonistic (relationship of conflict)	
c	Passive (govt. is non-interfering)	
d	Facilitative (where NGO assists govt. through advice, training etc.)	
e	Any other (specify below)	

G5. Can you rank the following in the order of their importance to your operations as stakeholders?

Rank in Order of Importance, The Most Important As 1

		Rank
a	Government	
b	Donors	
c	Local bodies	
d	Target community	
e	General public	
f	Community opinion leaders	
g	Partners	
h	Community based organizations	
i	Any Other (specify below)	

G6. Do you have any alliances or strategic partnerships?

Check only ONE of the following

a	Yes	
b	No	

G7. If the answer to the above question is yes, with whom?

Answer (name of alliance partner):

G8. What is the main purpose of the partnership?

Answer:

G9. Approximately how often do you interact with your funding benefactors?

Check only ONE of the following

a	Once in a month	
b	Once in 3 months	
c	Once in 6 months	
d	Once a year	
e	Once in more than a year	
f	Rarely in touch	

G10. Which of the following describes the nature of your relationship with neighboring NGOs operating in the same activity/area?

Check only ONE of the following

a	Not interfering with each other	
b	Conflicting	
c	Mutual adjustment to resolve conflicts	
d	Active cooperation towards common goals	
e	Any Other (specify below)	

H1. Estimate the importance of the image of your organization in the Table below

Check only ONE of the following

a	Least important	
b	Not very important	
c	Somewhat important	
d	Important	
e	Extremely important	

H2. If your answer to the above is (d) or (e), do you have specific methods to project the image of your organization to your stakeholders?

Check only ONE of the following

a	Yes, we do vigorously	
b	Yes, but not much	
c	Not at present	

H3. If your answer to the first question above is (a), how do you project it? Name three steps.

Answer:

1.

2.

3.

H4. Name two outstanding features of your organization of which you are proud - in three or four words each.

Answer:

1.

2.

I1. What are the different departments of your organization?

Answer:

I2. Who do your field staff report to? And who does that person in turn report to? (Give only designations and not names).

Answer:

I3. Can you name one most important factor against each of the following as relevant to your organization?

Please respond to all 4

		Name One against each
a	Your organization's strength	
b	Your organisation's weakness	
c	What major opportunity for expansion do you see?	
d	What one threat do you see for your growth/survival?	

I4. Do you engage outside expert for special assignments?

Check only ONE of the following

a	Yes	
b	No	

I5. If the answer to the above question is yes, for what kind of assistance?

Check as many as applicable to your situation

a	Training field staff	
b	Training supervisors/managers	
c	Assistance in fund raising	
d	Preparation of their plans, proposals	
e	Marketing training	
f	Progress monitoring	
g	Designing reporting systems	
h	Management audit	
i	Participatory methods	
j	Leadership training	
k	Any Other (specify below)	

J1. How are your field staff able to handle their responsibilities?

Check as many as applicable to your situation

a	They have learnt by experience	
b	They are periodically trained internally	
c	They are periodically trained by external agencies	
d	A few of them have marketing diplomas/degrees	
e	Many of them have marketing diplomas/degrees	
f	Any other (specify below)	

J2. If your answer to the above is (c), which agency gives the training for the field staff?

Check as many as applicable to your situation

a	Donor	
b	Apex or mother NGO	
c	Outside expert/consultant	
d	Any other (specify below)	

J3. Which are areas in which you intend to take outside support for designing and implementing your programs?

Check only those that you intend to use

a	Formulation of marketing strategies	
b	Field and supervisory staff training	
c	Fund raising strategies	
d	Program impact measurement	
e	Communication methodologies	
f	Monitoring progress	
g	Any other (specify below)	

J4. This question is only for Apex NGOs
Do you undertake capacity building of your member NGOs?

Check only ONE of the following

a	Yes	
b	No	

J5. This question is only for Apex NGOs
If the answer to the above question is yes, what types of assistance are provided by you?

Check as many as applicable to your situation

a	Training their field staff	
b	Training their supervisors/managers	
c	Extending assistance in fund raising	
d	Extending assistance in preparation of their plans and proposals	
e	Supplying promotional material	
f	Extending financial assistance for infra structure / equipment	
g	Marketing training	
h	Progress monitoring	
i	Reporting systems	
j	Relationship building	
k	Participatory methods	
l	Leadership training	
m	Any Other (specify below)	

K1. Which are your main funding sources? Please indicate approximate percentage of funds from each source in the Table below –

Fill as many as applicable to your situation
Mark zero if any source is not relevant to your situation

	Source	%
a	Domestic - Government - State	
b	Domestic – Government – Central	
c	Domestic – Institutions	
d	Domestic – General Public	
e	Overseas – Institutions and Individuals	
f	Your own generated surplus	
g	Any other (specify below)	
		100%

K2. How much time do you spend on activities relating to fund raising?

Check only ONE of the following

a	Continuously throughout the year	
b	On and off throughout the year	
c	On and off over 6 months in a year	
d	On and off over 3 months in a year	
e	Over 1 month in a year	

K3. Do any of the following factors affect your fund raising capacity?

Check as many as applicable to your situation

a	Lack of necessary contacts	
b	Lack of knowledge of fund raising methods	
c	Want of information regarding sources	
d	Differences between expectations of donor and your methods/approaches	
e	Lack of legal status to create confidence in donors	
f	Any other (specify below)	
g	None – our fund raising capacity not affected	

K4. Do you have any income generating programs?

Check only ONE of the following

a	Yes	
b	No	

K5. If the answer to the above question is yes, approximately how much income is generated per year?

Answer	Rs.

L1. When you are satisfied that a sustainable impact has been achieved in a chosen area/segment, do you move the program and resources to another area/segment?

Check only ONE of the following

a	Yes	
b	No	

L2. If the answer to the above question is yes, how long does it take to create the desired impact permanently and move to the next area?

Check only ONE of the following

a	Up to 2 years	
b	3-4 years	
c	5-6 years	
d	Longer than 6 years	

L3. If no, what is the main reason?

Check only ONE of the following

a	Program discontinued	
b	Lack of funds	
c	No approval from Donor	
d	Any other (specify below)	

L4. Is the created impact sustained after you have moved out?

Check only ONE of the following

a	Yes	
b	No	

L5. If the answer to the above question is yes, please name 2 key factors that have sustained the impact without any continued major support from you.

Answer:

L6. How is the post-program impact measured and known?

Answer in two sentences:

L7. Which factors are the most critical for your organization's successful operation? Rank the following factors in the order of importance.

Check ANY THREE you consider most important – RANK as 1, 2, 3

a	Continuity of funds	
b	Trained staff	
c	Leadership and effective Management	
d	Knowledge of marketing strategies	
e	Program implementation	
f	Contact with community	
g	Clarity of Objectives	
h	Infra structure & equipment	
i	Employing marketing practices	
j	Any other (specify below)	

L8. Do you generate a surplus of income over expenditure?

Check only ONE of the following

a	Yes	
b	No	

L9. If the answer to the above question is yes, what percentage of total income is this surplus?

Answer: %

M1. Who do you report to or keep informed regarding your organization's performance and results?

Check as many as applicable to your situation

a	Board of trustees/Board of Management	
b	Your staff	
c	Main funding agencies	
d	Government /local bodies	
e	Local community leaders	
f	Mother NGO	
g	Any other (specify below)	

M2. Can you describe, in 2-3 lines, the procedure you have for the above – i.e. reporting/informing?

Answer:

Questionnaire for Donors / Experts

I would appreciate the benefit of your experience and knowledge of the NGO sector to help study the activities of this rapidly growing sector. No information furnished will be used to the disadvantage of any of the interviewees/ organizations.

To minimize your inconvenience, answers can be provided in short form or in a couple of sentences, as appropriate to each question. Further elaboration is at your discretion and convenience.

---

1. Are marketing practices - such as those applied to consumer goods and consumer durables - also relevant to socio-economic development activities (examples: change in sexual habits to protect against AIDS, natural resource conservation, saving and investment habits through self help groups etc) of the NGO sector?

2. If the answer is "no", what are factors that prevent the application of marketing practices by NGOs?

3. If the answer is "yes", which of the following practices would be feasible and useful for the NGO sector in successfully designing and delivering programs?

Check as many as applicable

a	Studying the needs of the community before designing the program	
b	Dividing the market into groups based on needs	
c	Developing services for specific groups	
d	Developing a system for delivery of services	
e	Informing target groups about the program features	
f	Developing a plan of action for a given period of say, one year	
g	Assessing the effect of program on the target group	
h	Monitoring progress	
i	Communication methodologies	
j	Any other (specify below)	

4. If relationship management is important for the NGO sector, who are the stakeholders with whom they should build relationships – in order of priority?

5. What main measures would you recommend to build such relationships?

6. Does the current legislative framework give NGOs, engaged in socio economic activity, a distinguishing legal identity with appropriate reporting requirements? Kindly explain briefly.

7. What are the advantages and disadvantages of the present legislative framework from a donor viewpoint?

8. Please name three important traits that donors had considered in selecting NGOs who are their current fund / assistance recipients.

9. What suggestions would you make to NGOs for demonstrating their accountability to stakeholders?

10. Can you offer one or two simple practical formulae to assess performance effectiveness in an NGO?

11. In your opinion, what is a reasonable % for administration expenses out of total expenditure (including program expenditure) to be considered efficient?

12. Please rank the following factors for NGOs' successful operation, in the descending order of importance.

a	Continuity of funds	
b	Trained staff	
c	Leadership and effective management	
d	Knowledge and practice of marketing strategies	
e	Cost effective program implementation	
f	Contact with community	
g	Clarity of objectives	
h	Infra structure & equipment	
i	Any other (specify below)	

13. Based on your knowledge of NGO managements, can you rate NGOs in general, with respect to each of the following aspects?

Check appropriate column against each factor listed

		1	2	3	4	5
		Practically Absent (Non-existent)	Yes, But Scrappy and not Systematic	Systems Exist but not Pursued as part of Management Process	Reasonable & Satisfactory (Satisfactory)	Of High Order
a	Effective use of resources					
b	Regular measurement of impact of programs					
c	Periodic comparison of progress against goals					
d	Efforts and systems to ensure operations are cost effective					
e	Availability of a systematic tracking mechanism for above					
f	Any other aspects you would like to add (specify)					
Name		Designation		Organization		

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Strategic Business Models for Operating system - An Analytical Study

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Abstract

Business model establishes linkage between strategy planning and implementation. Business models in software industry are unique in many ways. One is uniqueness of value chain of software industry. Secondly, software product users are manufacturers of software for open source based software. The changes in the product are identified & modified by customers themselves under open source software environment. Operating system software belongs to system software category. System software is created and made available to customers in various forms. Operating systems are designed for Desktops/Laptops and Servers. The major players in this industry are Microsoft, Linux and Mac. Under Desktop category, Microsoft (MS) and Mac are the major players. Each of these major players have unique business model. This study attempts to understand and analyze the existing business model and a conceptual business model is proposed using activity based approach for operating system products.

Key words: Business Model, operating system, Activity based approach, system software.

Business Model

Business model establishes linkage between strategy planning and implementation. It transforms strategies into action. The taxonomies of Business models are enormous, yet the definite framework of a business model fails to exist. Traditionally, business model was a tool to identify the revenue generating activity. However, business model consisted of many dimensions that positively influenced organizations. Burkhart et.al (2011) made a seminal contribution to business model literature. The study identified gaps in the business model literature, viz, lack of knowledge of interdependencies between the components of business model, lack of structured and comparable visualization of business models, less empirical studies on appropriate tools and criteria to evaluate business models. Raman Casadesus-Masanell and Joan Ricart (2011) state that alignment of business models with organizations' goals, objectives and strategies are essential for organizations. Richardson (2008) opines that Business models establish linkage between strategy formulation and strategy implementation.

The concept of Business model existed as an intuition based exercise. However, business model gained

prominence with the advent of internet in 1990's. The business model is one of the most researched concepts post internet era. Below figure indicates the number of publications related to business model in publication of non-academic journals (PnAJ) and publication in academic journals (PAJ) compiled by Zott et.al (2010).

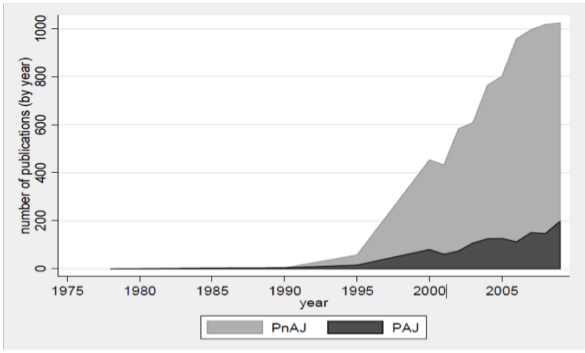


Fig: Articles related to Business Model in Business/ Management journals

Adopted from: Working paper- The Business Model: Theoretical Roots, Recent Developments, and Future Research, Christoph Zott, Raphael Amit, Lorenzo Massa, IESE Business School, June 2010

The above Figure indicates that the research on Business Model has exploded beyond 1995 though it was conceptualized earlier. The attention to business model is attributed to many reasons by management thinkers. A few of the notable attributes are, digital economy, advent of internet, rapid growth in emerging markets, convergence of value chain etc.

According to Drucker, a good business model answers questions such as, who is the customer and what does the customer value? How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?. The Business model design and product-market strategy are compliments not substitutes. (Zott & Amit, 2008). Magretta (2002) opines that business modeling is the managerial equivalent of the scientific method you start with a hypothesis which you then test in action and receive when necessary. A Business model is widely distinct from strategy. It has a strategic importance due to its impact on business performance. Business model can, however lead to competitive advantage (Afuah and Tucci, 2001). Hence, business model components and its design gain strategic importance. Business model can be specific for organizations or an industry. Though there is no standard definition of a business model. A few of the components that are core to business model can be identified as:

- A set of activities in the firm
  - Value chain
  - Value creation process
- Revenue generating process

The concept of business model can be examined from activity based view. An organization consists of a set of activities. The ability of a firm to integrate all activities efficiently and effectively might lead to competitive advantage. The ultimate objective of integrating activities in organization is to serve the customers better by making high quality products/services available. Activity based view considers perspectives of all stakeholders in the organization. The first set of components consists of activities that are required in making product/service and second part consists of making services/products available to customers.

The activity based business model varies across industry due to the nature of value chain involved in the industry. A few studies are available which evaluates industry specific business models. Rajala (2003) identifies four elements of business model in software industry, namely product strategy, distribution model, revenue logic and services and implementation. Rajala and westerlund (2005) identifies four types of software business models based on two dimensions, namely level of involvement of customer relationship and level of standardization. Schief & Buxmann (2012) made a seminal contribution in identifying business models existing in software industry. The study identified five clusters of business model elements. Viz, Strategy, Revenue, Upstream, Downstream and Usage. Software industry is one of the emerging industries. This is due to the fact that information technology is creating value in the organization and Software is one of the backbones

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of information technology infrastructure. Software industry has mainly two categories of a product namely, system and application software. Each classification represents a sub-category of software industry.

Business models in software industry are unique in many ways. One is uniqueness of value chain of software industry. Secondly, software product users are manufacturers of software for open source based software. The changes in the product are identified & modified by customers themselves under open source software environment.

Operating systems are designed for Desktops/Laptops and Servers. The major players in this industry are Microsoft, Linux and Mac OS. Mac OS is referred as Mac in the present study. Under Desktop category, Microsoft (MS) and Mac are the major players. In server category, it is mostly MS and Linux. Mac's presence in this category is very less.

Microsoft (MS) is a proprietary operating system. Users buy licenses to use MS operating system. License provides authorization to use operating system. Apple Mac is also license based operating system, but is a hardware integrated operating system. Mac is compatible with only Apple computers. Linux is open source code based operating system. Communities of users develop and test source code. A set of distributors download OS code and sell the code as a package to users under various versions. A few of the dominant distributors of open source OS are Redhat, Fedora, Suse, Ubuntu etc,.

Operating system software belongs to system software category. System software is created and made available to customers in various forms. The entire process is examined from activity based view which covers the activity of creating system software and making system software available to customers. The analysis uses four pillars of business model proposed by Alexander Osterwalder (2004). The four pillars are:

- PRODUCT: What business the company is in, the products and the value propositions offered to the market?
- CUSTOMER INTERFACE: Who the company's target customers are, how it delivers them products and services, and how it builds a strong relationship with them?
- INFRASTRUCTURE MANAGEMENT: How the company efficiently performs infrastructural or logistical issues, with whom, and as what kind of network enterprise?
- FINANCIAL ASPECTS: What is the revenue model, the cost structure and the business model's sustainability?

The next section elaborates the existing business models of system software. The business models have been analyzed from value creation and revenue generation perspectives. The first part deals with value creation and the revenue generation is analyzed from licensing and patents perspective in the second part.

Business Models from Value creation perspective

The value creation in the software context is related to writing of source code. The section below elaborates the value creation process of writing source code.

Existing Business Models for OS products

The system software is developed by software developers. The software is developed on technology platforms. Software developers write program/source code using programming languages. Generally, software is sold through licenses. The license indicates validity of product purchase and authorizes the product usage. Operating system (OS) products are generally sold using licenses. The licenses are used to protect intellectual property rights that define the conditions of usage of software purchased. A detailed discussion on licensing is covered in Section 6 of this chapter.

Source code is a set of programs that constitute a software product. Access to the source code is main differentiator in the business models adopted by major players in operating system software market. There are two broad categories based on access provided to source code. They are Open Source Code and Closed Source Code.

Open Source Code

In this category source code is open for access to

users. This holds good for both corporate as well as home users. The users can download the source code, make necessary changes or customize according to their requirements and install on hardware. However, a few of the software are governed by General Public License (GPL) for the usage of open source code in the commercial products. The open source code concept was proposed and started by Mr. Richard Stallman who started GNU project. The aim of this project was to develop free and quality software.

Closed Source Code

Closed source code does not provide access to the source code to the users. Users have to buy software as a package and install on hardware. The users buy the software through licenses. The licenses and products vary depending on the corporate or home users. However, some of the software are developed using open source code, but they are required to acknowledge the usage of open source code in their product.

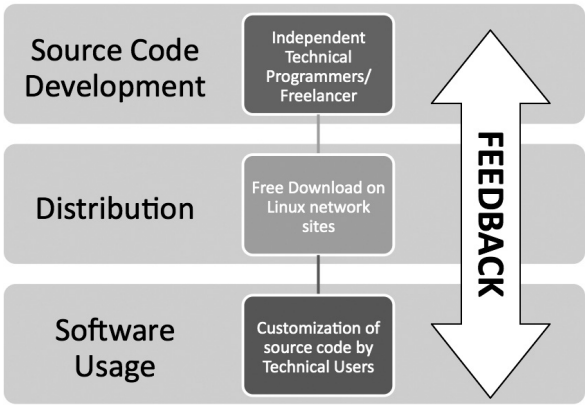
Business Model for Open Source code

The source code is written by a group of programmers. These set of programmers develop the source code generally, out of their passion. Open source code is considered to be more secured and highly reliable, since the code is written and tested by a number of programmers. The code is tested under various platforms and applications. If any errors/bugs are found, it is resolved by programmers. The issues identified will be discussed on the network and solution to the error/bugs is identified. The programmers are connected with each other through online network platforms such as discussion forums, blogs and other membership based websites. The modified code is made available to customers as soon as the errors/ bugs are fixed. Therefore, the code is considered to be more authentic and secured. The source code is made available on the internet and is open for download for all users. If there are any problems with the code, it is brought to the notice of the programmers through online network. Generally, the users of open source code OS have technical background and have basic knowledge of programming and hardware. Broadly, three categories of business models in open source code can be identified as mentioned below.

- Direct download;
- Purchasing Packaged open source code operating system; and
- Sponsored open source code operating system.

Direct download

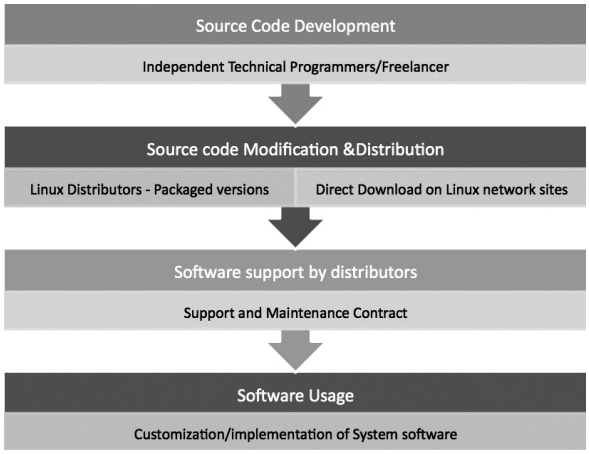
In this mode, users directly download the source code from internet. The source code is made available on the internet. The users can get customer support from third party vendors at a cost. Linux OS is an example in this type of business model.



Business Model - 1 (open Source code)
Source: Author

Purchasing packaged open source code operating system

In this category, different versions of the source code are bundled together and are made available to the users by vendors. The users have to pay for the bundled product. Generally, the bundled product includes CD(compilation of source code), users guide, installation guide etc,. The users also do have a option of purchasing support services from the same vendor. In this model, though the source code is available free of cost, the package has to be purchased at a cost. Redhat, Suse etc, adopt this category of business model.



Business Model - 2 (Packaged open Source code)
Source: Author

Sponsored open source code operating system

A few of the hardware manufacturers' sponsored open source code operating system by supporting open source application products. These organizations have resources to develop open source code operating system and other applications which will be compatible to their hardware. The hardware manufacturers will be treated as ambassadors of open source code operating system. For instance, IBM established the Linux Technology Center (LTC) as the primary vehicle to participate in the Linux community. IBM and the LTC have established four goals for participation in the Linux community (IBM Systems and Technology Group, 2010):

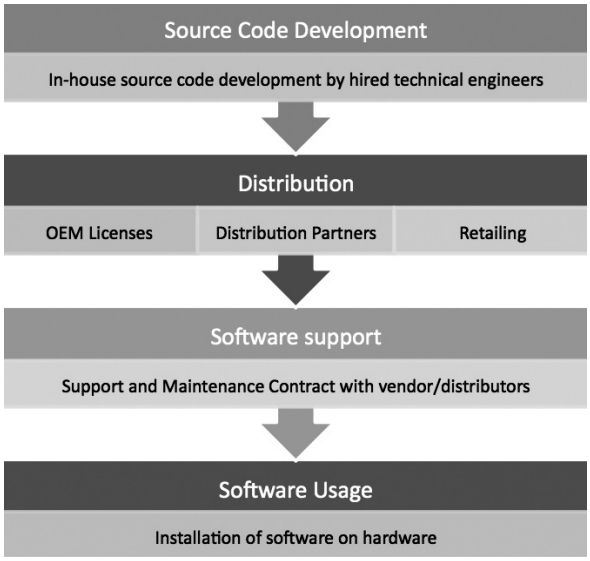
- make Linux better;
- expand Linux's reach for new workloads;
- enable IBM products to operate with Linux; and
- increase collaboration with customers to innovate in ways IBM cannot do by itself.

Hardware manufacturers like IBM and HP develop hardware which is based on Linux operating system. In addition, the application software of these organizations are compatible with Linux operating system. The hardware is loaded with open source operating system and is sold either directly or through distribution channels.

Closed Source Code

In this category, we have broadly two classifications:

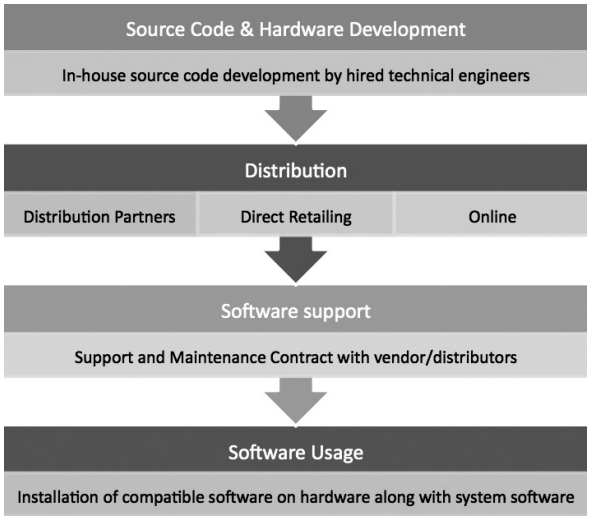
1) OS sold to customers as a separate package and
2) OS integrated with hardware.



Business Model 2.1
Business Model - 3 (Packaged Proprietary OS License)
Source: Author

OS integrated with hardware

In this category, the users need not buy OS separately. The OS is embedded with the hardware. This hardware is, generally, compatible with only a few numbers of applications. Mac OS X follows this model. The OS supports only hardware of Apple. The OS is not much different for corporate and home customer segment. Since, the OS is integrated with the hardware; it is designed in such a way that it is compatible with most complex hardware specifications. This category will have end-to-end product.



Business Model 2.2
Business Model - 4
(Packaged H/W integrated OS License)
Source: Author

Analysis of Business Models

The business models are expected to enhance the performance of organization. The business model's performance is linked with the performance of organization. There are many tools and framework available to evaluate business models. In the present study business model of Microsoft, Apple and Linux are analyzed based on the pillars and building blocks identified by Alexander Osterwalder (2004) shown below:

Pillar	Building Block of Business Model	Description
Product	Value Proposition	A Value Proposition is an overall view of a company's bundle of products and services that are of value to thecustomer.
Customer Interface	Target Customer	The Target Customer is a segment of customers a company wants to offer value to.
	Distribution Channel	A Distribution Channel is a means of getting in touch with the customer.
	Relationship	The Relationship describes the kind of link a company establishes between itself and the customer.
Infrastructure Management	Value Configuration	The Value Configuration describes the arrangement of activities and resources that are necessary to create value for the customer.
	Capability	A capability is the ability to execute a repeatable pattern of actions that is necessary in order to create value for the customer.
	Partnership	A Partnership is a voluntarily initiated cooperative agreement between two or more companies in order to create value for the customer.
Financial Aspects	Cost Structure	The Cost Structure is the representation in money of all the means employed in the business model.
	Revenue Model	The Revenue Model describes the way a company makes money through a variety of revenue flows.

Table# Business Model building blocks
Source: The Business Model Ontology,A Proposition In a Design Science Approach, doctoral dissertation of Alexander Osterwalder, 2004.

Pillar	Building Block of Business Model	Microsoft	Mac	Linux
Product	Value Proposition	Stand alone Operating system with bundle of application software that meets minimum end user requirements	Hardware Integrated operating system	Hardware integrated and stand alone operating system
Customer Interface	Target Customer	Home/Enterprise Segment	Home/Enterprise Segment	Home/Enterprise Segment
	Distribution Channel	OEM/ Distributors and Resellers/online	Online/direct/retailing	Network of users/ partners/corporate sponsors
	Relationship	Through partners and direct through online channel	Direct and Through partners	Direct and Through partners
Infrastructure Management	Value Configuration	Technical Engineers at Microsoft develop operating system, Microsoft has fairly good network with computer peripheral manufacturers which will design and produce Microsoft operating system compatible system	Technical Engineers at Apple develop Mac OS X operating system bundled with hardware and software which are compatible on multiple platforms	The developers are users, the operating system is developed and errors are fixed in a network of developers.
	Partnership	Partnership exists with processor manufacturers, computer hardware manufacturers to create value for customers	Partnership does exist with limited application software developers	Linux is developed with partnership between users and corporate sponsored developers
Financial Aspects	Cost Structure	cost of software development	cost of software development and hardware development	No cost
	Revenue Model	Licensing and user support	Hardware based operating system licenses and user support	User support

Table#: Building Blocks of Business Model of Microsoft, Mac OS X and Linux
Source: Compiled by Author based on annual reports of Microsoft & Mac OS X and www.Linux.com

Building blocks of business model of Microsoft Windows, Apple Mac and Linux

The building blocks of business model proposed by Alexander Osterwalder have been used to enumerate the business ontology of operating system software market. The building blocks are:

Value Proposition: A Value Proposition is an overall view of a company's bundle of products and services that are of value to the customer.

Microsoft Windows provide operating system as a bundle of applications. Operating system has to be loaded on hardware which has compatibility with Microsoft Windows. A few selected applications will be bundled with operating system. The applications such as media player, internet web browser, word processing applications etc. are bundled with desktop operating system and features such as server management and automation, virtualization, networking etc. are bundled with Microsoft Windows server operating system. Mac OS X provides hardware as well as bundle of applications to users. The users buy bundle of applications along with hardware. Users need not buy operating system license and hardware separately. The hardware will have pre-loaded application software similar to Microsoft Windows. Linux operating system requires technical skill set. Linux operating system is available in three forms, viz,, free download, packaged distributors and sponsored operating system. Free download, Linux kernel the low level software can be downloaded free of cost and install on hardware. There are many vendors who provide Linux based application software which have to be installed and configured by users. The second form of Linux operating system is through packaged distributors who provide Linux operating system and required applications to manage Linux operating system. The distributors provide technical support, installation support and training to the users. The third form of Linux operating system is available through sponsored organization such as IBM and HP. Sponsored organization bundle Linux operating system and supporting application software with their hardware. Sponsored organization will have resources that provide customer support, training and installation services. The users will be able to access the best of the hardware and software in this mode.

Target Customer: The Target Customer is a segment of customers a company wants to offer value to.

Microsoft Windows has been targeting both enterprise segments as well as home segment. Microsoft has two business divisions that focus on both segments. One, Windows and Windows live division focuses on desktop PC's, secondly, server and tools division focuses on enterprise servers. Apple Mac OS X has operating system for both home segment as well as enterprise segment. Mac operating system was predominantly used in home segment, but recent versions of Mac operating system provides many options for enterprise customers. Generally, the designers, developers and architects have been using Mac operating system. iMac® or Mac Pro® provide the features that are needed by enterprise customers. MacBook Pro® and MacBook Air® are portable system that will help home as well enterprise customers. Linux operating system is predominantly focuses on enterprise segment due to the technical nature of Linux operating system. In the recent days, the packaged distributors of Linux are focusing on home segment as well. A few of the hardware manufacturers are shipping laptops with pre-loaded Linux operating system.

Distribution Channel: A Distribution Channel is a means of getting in touch with the customer.

Microsoft Windows has three distribution channels. One, original equipment manufacturer(OEM), secondly through distributors and retailers and thirdly online. "The largest component of the OEM business is the Windows operating systems pre-installed on PCs. OEMs also sell hardware pre-installed with other Microsoft products, including server and embedded operating systems and applications such as our Microsoft Office suite. In addition to these products, we also market through OEMs software services such as our Windows Live Essentials suite."(Microsoft Annual report,2012). The other two channels viz. distributors & retailers and online sell Microsoft application software. The proportion of operating system license sale is less through these channels. Predominantly, operating system licenses are sold through OEM. Mac operating

system makes product available through Online or direct retailing or third party resellers. Uniqueness of Apple distribution is direct retailing. "The Company's retail stores are typically located at high-traffic locations in quality shopping malls and urban shopping districts. By operating its own stores and locating them in desirable high-traffic locations the Company is better positioned to ensure a high quality customer buying experience and attract new customers. The stores are designed to simplify and enhance the presentation and marketing of the Company's products and related solutions. To that end, retail store configurations have evolved into various sizes to accommodate market-specific demands. The Company believes providing direct contact with its customers is an effective way to demonstrate the advantages of its products over those of its competitors. The stores employ experienced and knowledgeable personnel who provide product advice, service and training. The stores offer a wide selection of third-party hardware, software, and other accessories and peripherals that complement the Company's products"(Apple Annual report, 2012).

Linux makes operating system available through online or package distributors such as Redhat, Suse etc and through sponsored organization such as IBM and HP.

Relationship: The Relationship describes the kind of link a company establishes between itself and the customer.

Microsoft reaches customers typically through its partners. It does not establish direct formal relationship with customers. However, through online channel it establishes direct relationship with customers. Apple's strategy is to directly establish relationship with customers. The direct retailing strategy of Apple provides direct access to customers. Linux operating system is developed by users. Therefore, there is direct relationship with customers. Sponsored Linux operating system establishes relationship through package distributors. All the major players establish relationship with customers either directly or through their partners.

Value Configuration: The Value Configuration describes the arrangement of activities and resources that are necessary to create value for the customer.

The discussion of value configuration is based on source code development. Value is created for the customer in each activity of organization. The discussion focuses on the core activity of organization. The core activity of software is source code development.

Microsoft Windows operating system is developed by the technical engineers hired by Microsoft. The innovation of product features is highly dependent on the caliber and creativity of technical engineers. The similar situation exists with Apple Mac operating system. Mac operating system is also developed by hired technical engineers. Linux operating system's value configuration is unique as compared to Windows or Mac operating system. The users are only the developers of source code. The value creation process is initiated and contributed by users. Network of users contribute to the value creation. The errors, bugs and required modifications are identified and rectified by users only. Engineers at Microsoft and Apple edit and fix the bugs based on the user feedback.

The source code is modified and customized by the value adding distributors. The distributors such as Redhat or Suse will have resources to modify the source code and customize applications based on the customer requirements. This will be additional value configuring activity in the value chain of operating system product.

Capability: A capability is the ability to execute a repeatable pattern of actions that is necessary in order to create value for the customer.

The component of capability is not included in the discussion due to the nature of operating system. The capability component of operating system is pertinent to source code development process. The source code development process is discussed in value configuration component. Therefore, the capability component is not included in the present discussion.

Partnership: A Partnership is a voluntarily initiated cooperative agreement between two or more companies in order to create value for the customer.

Partnership is a significant factor in system software

market. The partnership will enable hardware and software organizations to arrive at a common standard and develop the product for customers. Microsoft has partnership with hardware and software application development organizations. For instance, Microsoft partners with software vendors through distribution policies for independent software vendors (ISV). "The Microsoft ISV Royalty Licensing Program is a worldwide software licensing program that offers ISVs a convenient way to license Microsoft products and integrate them into a software business application.

This is a relevant option for:

- Organizations that exclusively develop software or software solutions instead of being part of a computer system or being a hardware manufacturer;
- Organizations that obtain at least 30 percent of their overall revenue from the sales of licenses of that solution." (Microsoft annual report, 2012).

Microsoft has partnered with hardware manufacturers. For instance, Microsoft and Intel. Intel develops processors that have compatibility with Microsoft operating system. They will develop hardware and software which will be compatible to each other's offerings. Similar to Microsoft, Apple also works with a few software vendors. The software vendors will develop applications that will run on Mac operating system. Apple and Intel work together to design and develop processors that support Mac operating system. Linux operating system is designed and developed through partnership between users. The partnership also exists with sponsored organizations. Linux operating system is product of partnered networks.

Cost Structure: The Cost Structure is the representation in money of all the means employed in the business model.

The cost structure in the context of operating system is based on cost involved source code development and hardware manufacturing. Microsoft operating system incurs cost in developing source code. The major cost in source code development is human resources. Apple Mac operating system has two costs, one hardware design and development and secondly the source code development. The source code of Mac operating system is based on UNIX. However, it engages technical engineers to customize Mac operating system. Linux operating system does not involve any cost of development. The operating system is conceived and developed by users. The users will be technically sound and are motivated to contribute to the development of source code. Recognition of source code contributors is one of the significant source of motivation.

Revenue Model: The Revenue Model describes the way a company makes money through a variety of revenue flows.

In operating system software market revenue is generated through licensing and customer support. Microsoft offers many licensing options to purchase licenses based on user requirements, user base and technical requirements. Microsoft has software assurance program through which I provides customer support, user training and configuration support to customers at a cost. Apple generates revenue through sales of Mac desktops and portable devices pre-loaded with Mac operating system. The user maintenance contract will provide necessary support, training and deployment facilities to customers.

Linux operating system does not generate revenue per se. but sponsored and packaged Linux operating systems generate revenue through licensing and customer support. The detailed discussion on licensing is covered in section 6.0.

Proposed Conceptual Business Model for System Software:

Business model of system software market has been analyzed from internal and external environment. The internal environment was evaluated based on value creation process, taxonomy on business model evaluation. The external environment was evaluated based on distribution channels, revenue generation, licensing, legal perspectives and international trade. The analysis on these parameters indicates that business model of system software market comprises of value creation and distribution components which significantly affect players of market. The value creation belongs to internal environment and distribution corresponds to external environment.

Internal environment

The core value creation is through writing code. The code is generated through either users or technical engineers recruited by organizations. The details of the core value creation is discussed in the model below:

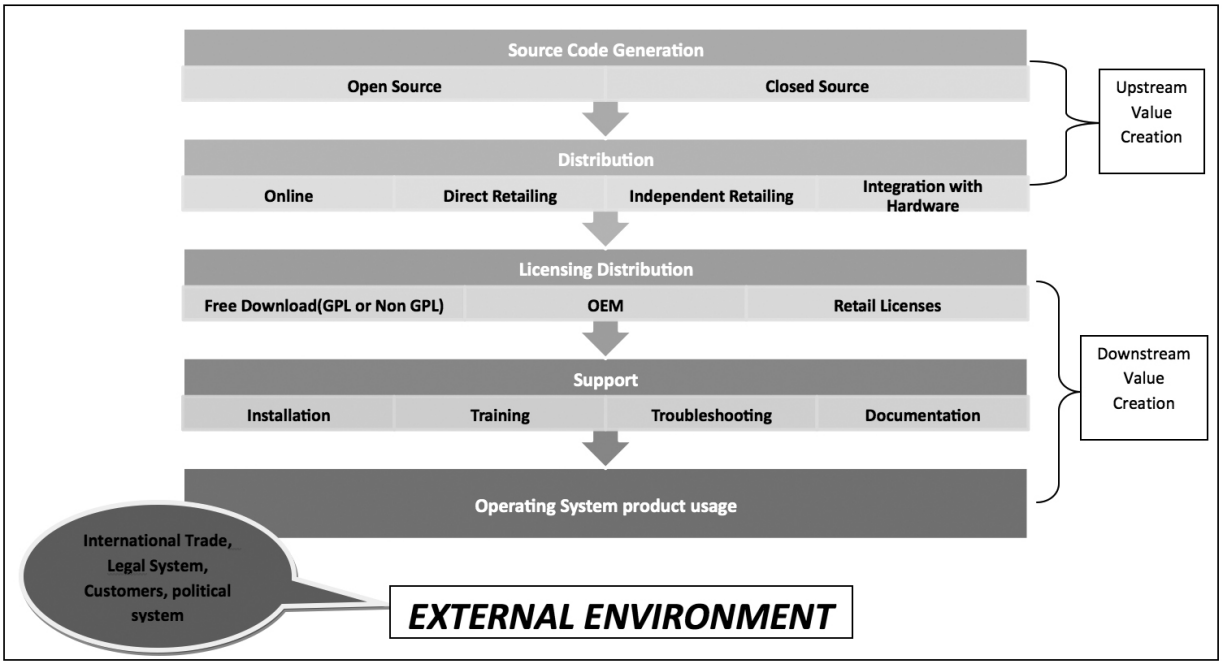
External environment

The external environment influences users to a great extent. The external environment deals with licensing and distribution of software. These two factors affect the usage of software. There is lack of clarity on software licensing and patenting in the international trade context. The software is truly a global product. The international community must address this issue and establish clarity on software patenting and licensing. This is directly linked with distribution and features of system software. The clarity on these issues can be established by creating techno-art policies. The policy must identify the standard features for software. These standard features are confined to the inter-operability functionality. If there are standardized features, then the software developing organization can develop software based on the standardized features. This will also solve the issues related to antitrust legal hurdles and anti-competitive strategies.

The clarity of policy has to be established by WTO in its ITA and same should also be reflected in TRIPS agreement.

The conceptual model proposed through this study is given below:

Proposed business model is shown below to depict the components of system software business model.



Fig# Proposed conceptual business model
Source: Author

The above figure is proposed conceptual business model. The model has two value chains, one upstream value chain and secondly downstream value chain. The upstream value chain consists of value creation through writing of source code and downstream value chain pertains to the distribution of software. The components of proposed conceptual business model are explained below:

Source code generation

Source code generation is the basic activity in system software. Source code consists of instructions to computer to perform a specific task. The source code can be open source or closed source. Open source provides access to source code where as closed source does not provide access to source code.

Distribution

System software is made available to customers through various channels. It adopts traditional distribution channel strategies of direct retailing or independent retailing. For instance, Apple has direct retailing as well as independent retailing. Open source system software can be distributed through online or through independent retailing such as Redhat, Suse etc. The system software is also integrated with hardware and sold to customers.

Licensing Distribution

Licensing distribution provides the legal framework of usage and distribution of system software. The license can be distributed as a free download yet governed by GPL or non GPL. GPL and non-GPL have been discussed in section 6.3. OEM licenses are computers with pre-loaded operating system. Retail licenses cover paper licenses or licenses which are sold independent of hardware as a commercial of the shelf software. Licensing distribution will have direct relationship with revenue generation.

Support

Support includes installation, training, troubleshooting and documentation. System software is a technical product which demands for technical support to install and use the software. Hence, this is a important component in system support. This is one more source of revenue to organization.

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BOOK REVIEW

Marketing Management-Global Perspective, Indian Context

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The book under review has undergone a major reformation by its fifth edition published in 2013. Theodore Levitt in his 1990 foreword to the first edition has described this book as of "Immense Detail" written in "The Indian Context" and has opined that it has rightly recognized the need for aligning marketing teaching with the "Stage of development of Markets and Countries". Even after fifth edition, the book is updated and fits into the classical remarks of Levitt. The book has nine parts divided into 31 chapters covering about 800 pages. The new avatar of the book has made it more attractive followed by richness in content and expansion of the perspectives on marketing in the changing context.

The book basically covers four Ps which are transactional functions of marketing. These four Ps are in operation in a social environment wherein consumers and markets behave the way they are. The authors have driven value philosophy to make the book more contemporary & have fitted the book to in the Asian context.

Any marketing system is a setting based on history, functioning of the industry, Governmental regulations, consumers' behaviour which is affected by a regulatory mechanism. The regulations envisaged a setting for transactions where in producers and consumers meet their conflicting goals. The value philosophy has been introduced to influence production and delivery systems. The societal setting enables value creation under a value base. The realization of value base would influence evolution of marketing system for realization of the basic principles such as availability, action, awareness, reach, communication and operations of transactions and relationships.

The ultimate goal is to create value to the customer. This process is initiated by production and marketing practices. Marketing as a value of philosophy has its manifestations as a concept, sector, functions, practices, access and orientation towards desired results. This will be supplemented by the quid pro quo approach. Marketing as a sector and function is an experience. Markets influence the Government and people. Planning for marketing is in the domain of production plans in a competitive setting.

The manifestation of marketing function helps the consumer to acquire characteristics which influence him. These are culture, lifestyle, divisions such as rural, urban and class and so on. The authors have made the book more utility oriented by their approach of examining marketing from a managerial perspective. The book is written in a unique style of blending enumeration with concepts, functions and practices. Every chapter has value delivery in terms of content, style and language. The book has India driven content as reflected by mini cases enumerated.

The chapter one reinforces that Marketing is not selling and it is value delivery. This philosophy of value creation and delivery by organizations has in its fold promise, delivery, trust, brand, practices and principles on which Marketing functions are based. The link of downstream with the upstream of markets is an important part of the chapter. The chapter concludes that value delivery is a task, an action and is the central theme of the book.

The funds of marketing from conceptual, functional, from ecological perspective have been discussed in chapter two. Our drive to produce more should meet with cost of selling, cost of damage to the environment and the cost of the society. The authors have discussed Marketing from conceptual, exchange, production and consumption perspectives. The concept of green marketing has highlighted the value philosophy.

The third chapter reinforces value philosophy and value together. It is the perceived tangible values that will lead to buying products. The cases of Starbuck, Coffee movements, Titan eye have been highlighted. The process of value delivery consists of creating and communicating the product itself. The frill benefits of style, luxury, comfort, performance and safety add value. The cases of Virgin Atlantic and Toyota ETIOS are highlighted. The role of McDonalds in creating "Veg only" products suggests value efforts of MNC Companies in delivery of Jain food in international flights.

Two chapters have been devoted for environmental analysis. The first chapter examines Macroeconomic environment which is central to business. The analysis highlights the characteristics of Indian economy by Economic Factor Analysis (EFA) in the context of the changing Indian economy. The analysis has been made at the aggregate and at sector levels. The role of Integrated Communication Technology (ICT) has been discussed in greater detail. The environmental concerns are expressed through Volkswagen's effect. The importance of green effect is highlighted through green marketing. The consequences of economic slowdown in the context of 2007-2008 in India have been discussed. The effect of Maruti Manesar plant in 2012 has been highlighted. At the organization's level, the institutional adjustments to economic changes have been discussed through Infosys case.

Another chapter covers in detail is the trends in the global economy in terms of demographics, environment, technical competition and consumers. The ten macro trends of the global economy such as the rise of the middle class, the disaffected youth, the rich-poor divide, the climate change, the ageing world, and the urban transition, movement of people, connectivity, investment climate and uncertainty have been enumerated. The emergence of India and China and its effect on shifting of balance of power are documented. The globe is a blotted up village where domestic walls are collapsing. The digital revolution, e-commerce and structure of competition are changing. The present globe is full of challenges and opportunities. The suggestion of the authors on a group project to assess the present situation and to project immediate future is well conceived.

There is another chapter on Indian Growth Story covering the trends between 1990and 2008. The fall of the Indian economy between 2008 and 2012 is well documented. The data on consumption, spending and investments would lead us to emerging nature of growth. The reviewers did not notice any data set drawn from NSSO surveys and from the classic Economic Surveys brought out by the Government of India before the presentation of annual budget every year.

Business plans are as critically important as business itself. The concept of a plan, strategic plan and the means of preparing this plan are elucidated well. The mini case of ITC suggests how planning is done at the organizational level and the factors that govern a planning exercise. The concept of value chain and the use of internal appraisals have been presented with precision. The lifebuoy example on market planning is a classic illustration of on FMCG product. The marketing planning process has been detailed in chart 7.6 in a commendable manner.

The value proposition as a strategic exercise is drawn by Tata Nano, ITC, and Lifebuoy examples. The cases drawn from different product bases covering Indian and International products gives a clear edge to the book. The HUL, Nokia and Microsoft, Nestle, Micromax and LG electronics demonstrate the conditions under which ideas work. The modification of marketing mix by Dell and Lifebuoy suggests how value prepositions work. The mini case of Vimal is still relevant although the success story dates back to 1970s strategy and mix add value proposition to marketing exercises.

The part three begins with discourses on strategy and approaches to formulate strategies. Godrej as a brand is a classic Indian case in capturing the market under varied conditions.The change in technology and their adaptation to Godrej Refrigerators have made a great difference in positioning. Godrej is a success story because of continuous efforts in communication which has sustained the value of the brand. The cases of Ujala and Rin for FMCG products are well conceived. The students of marketing will appreciate 'sachet strategy' in packing and distribution for a total reach of consumers. The case of ITC e-choupal is another success story of farmer partnership in evolving agri-business systems. The cases of Coca Cola, Dabbawalas are documented in style. The latest cases of Nano and Ghari detergent are live examples of quality and price orientation. There are a few more cases such as Paanch, Knorr reflecting orientation towards price and brand in the Indian context.

The chapter ten concentrates on analyzing industry and competition with the help of theoretical structures. Michael Porter's five forces model, the competitive advantage, structure and conduct of industry are well enumerated. The cases of Daimler Benz on entry and the Rule of Three governing the industry structure and the theoretical framework on which industry is understood have been explained at length. The entry level ideas for competing with other brands are well brought out using Maggie's case. The chapter ends with a comprehensive list of analytical tools to make the chapter complete. The points mentioned in chart 10.5 are sufficient for any learner to have acquired skills of industry analysis.

The ways to build competitive advantage have been discussed in Chapter eleven. Examples of Apple, the idea of value chain as an approach, benchmarking as a tool and the concept of core competence as applied in the industry are discussed in greater detail. The reviewer felt that a case on application of core competence in building up a brand would have made this chapter complete. In the Indian context, the core competence of IT service by Indian firms could have been enumerated.

In part four, understanding consumers by assessing their group behaviour and business decision process in the Indian context are discussed.Consumers differ as a group by their culture and lifestyle. Efforts have been made to capture Consumer Behaviour (CB) by analyzing through factors such as personal, cultural and social. The psychological process underlying Consumer Behaviour has been examined in style. The concept of neuro marketing has been introduced to highlight recent trends in consumer research. The individual and social motives of Consumer Behaviour have been analyzed by adding case of LG.This is supplemented by the buying decision process as enumerated by five and eight stage models. The authors have added two group projects to make learning complete.

The chapter thirteen concentrates on the consumer market and the Indian consumers. An effort is there to document Indian Consumer Behaviour. The Kellogg's case has been highlighted as a learning curve for the readers and marketers. The section on Consumer India, explores the nature of Indian consumers by their demographics, psychographics, culture, divide-urban-rural and by Socio Economic Classification (SEC). There are several classifications of Indian consumers by NCAER and McKinsey. The Indian consumer profiles have been sketched class-wise. The urban middle class youth market and their characteristics have been presented as an exhibit. The authors come to a conclusion on the complexities of Indian consumers and the big chain in the Indian scenario.

The STP models have been discussed in chapter fourteen with the cases of Titan, Mother care and Life Style products such as Café' coffee. The segmentation of Indian consumers is going on as an exercise in market research. The chapter lives the reader several open ended questions. One such question is, can STP work as a potent tool for marketers?

After an introduction on value philosophy, the process of value philosophy has been discussed in part five. The chapter fifteen examines issues on project management such as product offering, differentiation, products components, the brand the package and realizing product quality. The introduction of PLC approach and appraisals has been examined in product line, depth and width. The products of HUL have been discussed in greater stretch. The relationships between price and market share, time and sales value have been analyzed meticulously.

Difference and positioning of a product are discussed with the help of FMCG products. The Coffee Day, Dell and Dark Fantasy examples are brought out in a unique way in the positioning area. Branding and positioning have been discussed as concomitant factors. Maggie noodles and new Vespa are given to highlight on value proposition. The case of Hyundai-Santro is another example along with Maruti-Omni. The case of Complan in repositioning exercise is well documented.

The chapter seventeen covers brand management and equity. The market value of top ten brands, their characteristics,

the name, the technology and branding exercises leading to power of brands are described in several ways. The examples of high and low involvement product brands have been discussed. Performance and perception of brands on equity and positioning have been elucidated well. The group project on ITC for students is a relevant exercise.

The chapter eighteen discusses value creation through innovation and new products. Technology has been continuously changing the industry and society. The work of Steve Jobs in product innovation is the latest one which has revolutionalised the computer industry. The computer products have shifted from desk to palm. The story of walkman is a classic case in innovation. The ideas are manifested into products by R and D products. The introduction of Jugaad in the Indian context is a case in point.

The part six concentrates on logistics and supply chain management, retail chain and direct and online marketing. The distribution arrangements as a supply chain are discussed with elaboration and luster. The physical distribution chain link has been enumerated on the basis of value chain concept. The inventory management and control has been discussed under EOQ concept. The chapter has failed to integrate and highlight the importance of human interface and legal strength to make supply chain go best. The Walmart experiment should be seen as an outstanding example in the global context and the Dabbawalas human chain in the Indian context. Addition of these two success stories would enhance the value of the chapter.

Marketing channels are determined on the basis of service value provided by the marketing intermediaries. The reach of the user and backward linkage between user and seller matters the most. The channel designed is made on the basis of value creation, objective based channel designed move faster in strengthening the distribution system. The need base of the customer will determine the level and size for a product. The cases provided across spectrum of companies indicate products characteristics influence channel design. The criteria for evaluating channels have been discussed with precision. A case in point is non suitability realization by P and G and Nestle. The detailing of multi-channel models, vertical and horizontal systems have made the chapter enriching. The formats in retailing such as shop-in-shop, showrooms-own, franchised and exclusive showrooms have added to the value of the book. The channel strategy of Titan watches has been discussed in several dimensions.

The formulation of retail chain in urban India is a move from selling to marketing. The Pantaloons case and the analysis of data sets suggest new trends in retailing. IKEA's KES, entering to furniture and home products in India is an opportune case for discussion.

The direct and online marketing chapter brings out the relevance of direct marketing and the use of internet in reaching customers and inducers. The chapter has enhanced its value by a brief introduction of customer experience. The direct marketing as a tool is yet to catch up in the Indian context. The case of Surat Diamonds could have been given as an example. Some of the high value products in India may be considered for direct marketing exercise apart from jewellery. The four transactional Ps are well discussed with an emphasis on pricing.

The broad spectrum of two transactional Ps pricing and promotion have been discussed in part seven. Price, value communication, personal selling and Customer Relationship Management (CRM) are discussed here. The examples from HUL, TCS and Infosys are sighted for pricing methods in practice. The price as a value determination function is linked to aspirations. The denominations add value to the function. Pricing in economic fluctuations have been discussed at greater length. Packaged based pricing, rebate and discounts are a part of sale and are well treated.

The next chapter is on the latest trend in Integrated Marketing Communication (IMC). The function of marketing communication is discussed in the context of packaging, pricing and creation in marketing has been demonstrated by two Indian examples the Bombay Dyeing and Phillips. Event marketing – the case of Pepsi-is introduced to highlight the role of communications.

Advertisement Management is an area enclosed by success stories in ad campaigns. The ideas cellular the Vodafone, celebrity endorsement are touched upon. The success of nationality, emotion, humor and fear has been dilated at length. The use of technology and the social networking sites are points of highlight. The social media and their use have helped reach product information across national boundaries. This chapter could have been enriched by adding an exercise in media planning.

Personal selling and sales management are essential to market product and company. A trained personal will make a great difference in selling, re-selling and re-marketing a product. Some success stories on training salesmen and its impact would make this chapter complete.

B2B andB2C relationships are critically important to perform several tasks and benefits. In order to create customer life

time value programmes and campaigns and relationship exercises make a difference. The customer trust can build up as a part of corporate communication exercise.

Two chapters have been devoted to marketing research and control in part eight. The authors have examined the cases of Levi's Jeans and Panasonic and consumer research by ITC to highlight the importance of market research. The broad themes of marketing research have been documented in chart 28.1. Some of these subjects of research require a detailed treatment. The sources and uses of data have been briefly presented. Some elaboration is required on availability and uses of data bases. An exhibit could have been there on National Readership Survey (NRS), NSS for data sets and on use of Census Data in India. The section on forecasting could have been supported by real life example.

The management component in marketing has been discussed in the chapter on market control. The exercise on control is by measurement, audit and analysis by discounts and cuts. The range of discussion is from product to space. The authors have done commendable job in ensuring sufficient knowledge for the reader.

Two domains of Marketing – Services and Rural Marketing require a different treatment in presentation and knowledge horizon. Services marketing in the Indian context are discussed in great length in context of growth and expansion of services sector. The cases of Windsor Manor, Taj Westend, Disneyland and PVR Cinemas have been discussed to highlight the importance of services on measurement of service quality and customer satisfaction some detailing is made in the chapter. The contribution of A.Parshuraman and others on service quality instrument could be highlighted.

Rural markets are satellite and functional centers for exchange transfer, communication and integration. Since the real income in rural India is increasing, it is pertinent to discuss Rural Marketing. Some importance statistics on rural markets, discussion of the problems involved therein, the deficiencies seen,& the efforts being made by successful rural marketers, are the highlights of this chapter.The efforts being made by ITC & HUL to integrate rural markets have found place in the chapter.There are several exercises on rural markets which have achieved success in pockets of India. The role of NGOs such as Lijjat may be highlighted to increase the value of the book.

The present book after detailed reading would make any reader further acquire further knowledge in various domains of Marketing. The book is a classic compendium of knowledge organized on one unified theme base & spread across thirty one chapters. The book is strongly recommended for Post Graduate Students in Management Programmes who intend to specialize in Marketing. The book serves as a guide to practitioners and a good reference material for researchers. The book will be complete with an index on websites which we may call Webliography. The authors are contributing value to learners. The book can be used as a training material for knowledge and skills based programmes in Marketing.