

Customer Satisfaction of Nokia Mobile Handset Users

**J. V. Rangeswara Reddy*

In 19th century, Prof. Alfred Graham Bell invented the telephony to talk to others. The first real improvement in the telephone was due to Thomas Alva Edison's carbon transmitter, which was then further improved by the Blake microphone.

Another improvement was the combination of mouthpiece and the earpiece into a single handset, giving a new freedom of movement to users. The individual parts of the telephone were discovered and developed by different people at different times.

On February 14, 1876, the day that Graham Bell applied for a patent for his version of the telephone, Elisha Gray applied for a caveat-a document indicating that he intended to file his own patent claim within three months. But Gray was a few hours too late. Bell had already filed an actual patent application. In this way, London's first trunk telephone line linked the city with Brighton. For the first time, telephone communication was opened between London and what were then termed 'the Midland and Northern countries'. Thomas Watson was Alexander Graham Bell's right-hand man who helped him create the telephone. Cellular Phones are an offshoot of Graham Bell's invention. These devices work and have to be activated with the help of an electronic chip which are provided by many service providers.

The cellphone has revolutionized the way in which people communicate with each other. India has a population of 100 crores and 60% of the people use cell phones.

VARIOUS TYPES OF COMMUNICATION DEVICES

No one product can meet the needs, wants and desires of the people and market. The Indian communication department has, over the years, grown in scale with a diversified product range. The various types of communication devices in India are:

- Telephones (Landlines)
- Pagers
- Cellular phones

NOKIA CORPORATION

Wireless wizard NOKIA has cast a spell on the mobile phone market. The company is the world's #1 maker of cell phones. NOKIA is also aiming for the top of the nascent mobile Internet market. The company's products are divided primarily between four divisions: mobile phones (wireless voice and data devices for personal and business uses), multimedia (home satellite systems, and mobile gaming devices), networks (wireless switching and transmission equipment used in carrier networks), and enterprise solutions (wireless systems for businesses). It has agreed to combine its network equipment business with that of Siemens in a joint venture. NOKIA is currently the world's largest manufacturer of mobile telephones, with a global market share of approximately 36% in Q3 of 2006. It produces mobile phones for every major market and protocol, including GSM, CDMA, and W-CDMA (UMTS).

The corporation also produces telecommunications network equipment for applications such as mobile and fixed-line voice telephony, ISDN, broadband access, voice over IP, and wireless LAN.

NOKIA's headquarters are in Espoo, a neighboring city of Helsinki, Finland, but it has R&D, manufacturing, and sales representation sites in many continents throughout the world. NOKIA Research Center, the corporation's industrial research laboratories, has sites in Athens, Helsinki, Tampere, Oulu, Tokyo, Beijing, Budapest, Bochum, Palo Alto, California, Bangalore and Cambridge, Massachusetts, USA.

PRODUCT DIVISIONS

NOKIA comprises of four business groups: Mobile Phones, Multimedia, Enterprise Solutions and Networks, plus various horizontal entities such as Customer and Market Operations, and Technology Platforms.

MOBILE PHONES

NOKIA's Mobile Phones division provides people with mobile voice and data products across a wide range of mobile devices. The division aims to target primarily high-volume category sales of mobile phones and devices, with consumers being the most important customer segment. The devices are based on GSM/EDGE,

**Assistant Professor, Velangini Institute of Management, Bogaram, Keesara, Andhra Pradesh.
E-mail : rangeswar_777@yahoo.co.in*

3G/WCDMA and CDMA cellular technologies.

MULTIMEDIA

The Multimedia division's purpose is to design devices and applications that bring multimedia experiences to their customers. These devices allow people to create, access and consume multimedia, as well as share their experiences with others. The devices are included with a wide range of connectivity such as GSM, 3G/WCDMA, WLAN and Bluetooth.

ENTERPRISE SOLUTIONS

As the name implies, the NOKIA Enterprise Solutions offers businesses, corporations and institutions a broad range of products and solutions, such as enterprise-grade mobile devices, underlying security infrastructure, software and services. NOKIA also works with a range of companies to provide network security, bring mobilized corporate e-mail and extend corporate telephone systems to work with NOKIA's mobile devices.

NETWORKS

NOKIA Networks provides mobile network infrastructure, communications and networks service platforms, as well as professional services to operators and service providers. Networks focuses in: GSM, EDGE and 3G/WCDMA networks; core networks with increasing IP and multi-access capabilities; and services.

NOKIA'S LANDMARKS

Year 1969: NOKIA introduced the world's first 30-channel PCM (Pulse Code Modulation) transmission equipment conforming to the standards of CCITT (Consultative Committee on International Telegraphy and Telephony).

Year 1981: The world's first international cellular mobile telephone network NMT opened in Scandinavia with NOKIA introducing the first car phones for the network.

Year 1982: Opening of Europe's first digital telephone exchange, the DX 200.

Year 1984: Introduction of world's first portable NMT car telephone, the NOKIA Talkman.

Year 1988: Introduction of world's first NMT hand portable, the NOKIA City man.

Year 1989: The world's first ISDN (Integrated Services Digital Network) exchange conforming to CCITT standards, manufactured by NOKIA, was brought into use in Finland.

Year 1990: The world's first Actionet trunking mobile radio network was brought into operation. The world's first fast-poll 14,400 bps (bits-per-second) modem.

Year 1991: Introduction of world's first Radio Data System (RDS) and Mobile Search (MBS) text pagers.

Year 1992: The first manufacturer to have a large-scale production of GSM phones. The world's first genuine GSM call made using Radiolinja's network, supplied by NOKIA.

Year 1993: Introduction of The NOKIA 1011, the first digital hand portable phone for GSM networks. The NOKIA 100 series, the first family of hand portable phones for all analog networks.

Year 1994: The first Personal Communications Network based on GSM 1800 standard delivered by NOKIA. The world's first SMSC (Short Message Service Centre) taken into commercial use. The world's first credit card size cellular modem card developed with AT&T Paradyne.

Year 1995: The first official GSM call in the Republic of China made on a NOKIA phone on Beijing TA4s network, supplied by NOKIA. The first European manufacturer to start selling mobile phones in Japan.

Year 1996: The world's first integrated wireless pay phone. NOKIA Prime Site, the world's smallest base station for GSM/DCS cellular mobile networks. The new joint venture, Beijing NOKIA Mobile Telecommunications Ltd., was established: the first factory to manufacture large scale GSM systems and equipment in China.

Year 1997: The NOKIA 8100 product family, the first with an innovative, ergonomically comfortable design was introduced. NOKIA was the first manufacturer to offer both simplified and traditional character sets in the same phone. The first digital multimedia terminal in the world, the NOKIA Media master.

Year 1998: The world's first four TETRA networks were delivered by NOKIA. The world's first digital satellite receiver with Common Interface, the DVB 9600 S. The world's first GSM dual band base station, the NOKIA GSM 900/1800 Dual Band BTS. This provides the possibility to integrate GSM 1800 transceivers (TRXs) into an existing GSM 900 Base station (BTS).

Year 1999: NOKIA delivered world's first ETSI standard ADSL and IP network to Telecom New Zealand, thereby marking the start of commercial delivery of broadband data services using the ADSL network.

Year 2000: NOKIA is first to market with corporate WAP server. NOKIA introduced the world's first high-speed data terminal for wireless networks: the NOKIA Card Phone 2.0 brings about a four-fold increase in data transmission speed. NOKIA announced the world's first media phone that is based on the Wireless Application

Protocol (WAP) in Mobile Media Mode.

Year 2001: NOKIA introduced the world's first IPv6-enabled end-to-end GPRS network. NOKIA introduced the world's first TETRA WAP browser which brings powerful WAP applications to TETRA professional mobile radio networks.

Year 2002: NOKIA and the Finnish operator Sonera conducted the world's first Wireless LAN roaming based on GSM technology. Sonera is making use of NOKIA technology that allows mobile operators to offer broadband wireless Internet services in Wireless LAN access zones.

Year 2003: NOKIA announced the NOKIA 6200 tri-band (GSM/GPRS/EDGE 850/1800/1900MHz) phone, the world's first 3GPP compliant EDGE (Enhanced Data-Rates for GSM Evolution) handset, offering users advanced voice features and robust mobile data services via high speed Internet connectivity. NOKIA introduced the world's first handset for WCDMA and GSM networks.

Year 2004: NOKIA and Jay-Z teamed up to create a music and wireless industry first with the Black Phone. NOKIA unveiled the world's first GSM push-to-talk handset, the sports-inspired NOKIA 5140 phone. NOKIA demonstrated world's first dual stack IPv4/IPv6 CDMA handset.

Year 2005: Using NOKIA's CDMA Dual-Stack handset, NOKIA demonstrated the industry's first Mobile IPv6 call at the 3G World Congress Convention and Exhibition in November.

Year 2006: NOKIA announced world's first commercial solution for managing DVB-H broadcast services. The NOKIA 6630 imaging smart phone has as the first device in the world achieved global GCF 3G WDCMA Certification. The certification was achieved based on the requirements defined by Global Certification Forum (GCF).

OBJECTIVE

The objective of the paper is to study the Satisfaction level of customers, Product awareness and Consumer Behavior with reference to NOKIA mobile handset users.

SCOPE OF THE STUDY

The study enables us to understand the perception of the market segment in a better way. So, this study would help NOKIA dealers to recognize the factors influencing the purchase of NOKIA Mobiles and also to identify various features influencing the buying process. In short, the study covers the area of consumer behavior, the attitudes and perceptions of Mobiles phone users.

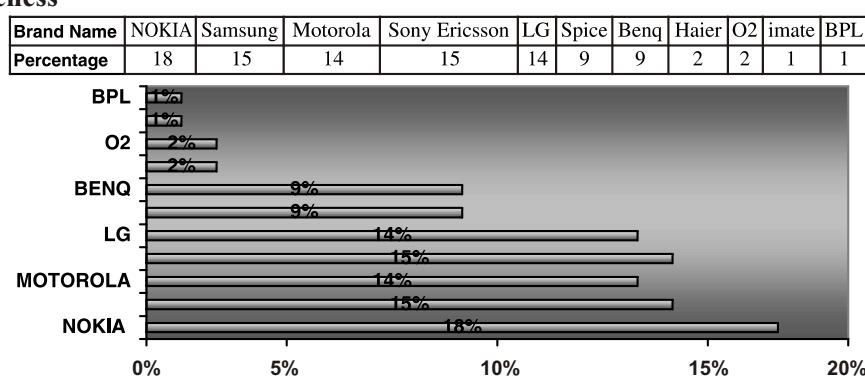
SAMPLING PLAN

The type of sampling is convenient random sampling & sample size is 100. The data was collected by administering a questionnaire to this sample.

For analyzing the responses of customers, we have used simple averages and for the purpose of interpretation of analyzed data some of the graphical representations were used.

FINDINGS AND ANALYSIS

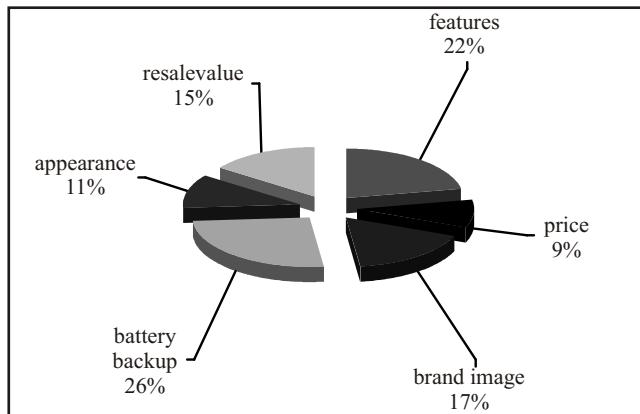
1) Product Awareness



The above table indicates that NOKIA is having good awareness among the respondents. After NOKIA, Samsung & Sony Ericsson occupy the second place. Motorola & LG is in the Third place. Spice and Benq are in the fourth place. Haier and O2 comes before i Mate and BPL.

2) Factors Influencing the Brand Preference

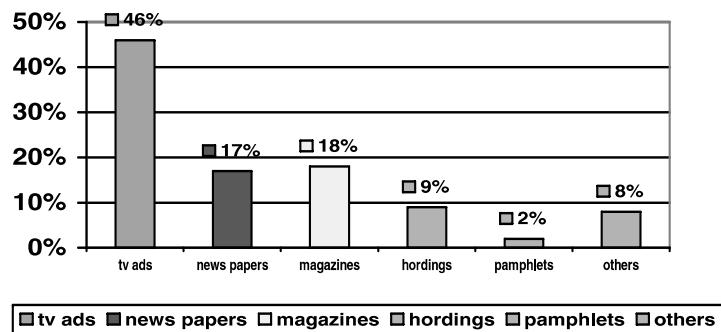
Factors	Features	Price	Brand Image	Battery Backup	Appearance	Resale value
Percentage	22	9	17	26	11	15



The above table shows that 22% of the respondents are influenced to buy NOKIA phones for features and price 9%, 17% by the brand image, 26% by the battery backup, appearance 11% and 15% buy the Nokia brand because of its resale value respectively.

3) Media Preference for Advertisement

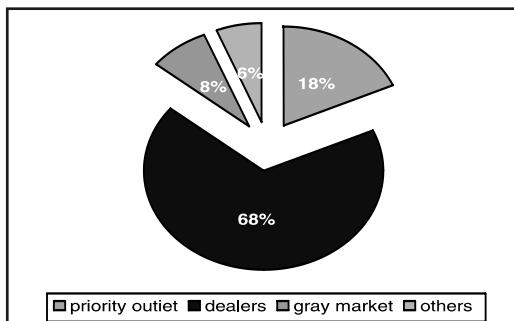
Media	T.V ads	News papers	Magazines	Hoardings	Pamphlets	Others
Number Of Respondents	46	17	18	9	2	8
Percentage	46	17	18	9	2	8



From the above table, it is observed that 46% of the respondents prefer Television for advertising the product where as 17% of them prefer newspapers and 18% prefer Magazines, hoarding and pamphlets are preferred by 9% and 2%, 8% is preferred by others respectively.

4) Place of preference for buying NOKIA mobile phones

Buying behavior	Priority outlet	Dealers	Gray market	Others
Number Of Respondents	18	66	8	6
Percentage	18	66	8	6

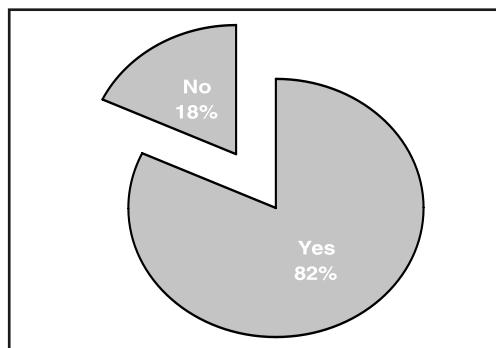


From the above table it can be concluded that 18% said that they prefer to buy their phones with priority outlets, 66% said that they prefer to buy with dealers and 8% said that they prefer to buy in gray market and finally 6%

preferred to buy with others.

5) Awareness about the features in NOKIA mobile

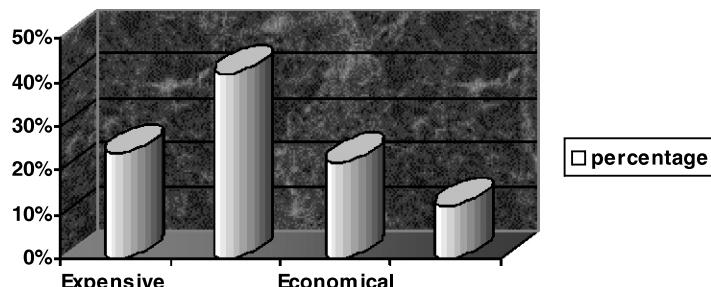
Awareness about the features	Number Of Respondents	Percentage
Yes	82	82
No	18	18



From the above table it can be concluded that 82% of the customers are having awareness about the features in their phones and 18% do not have awareness about the features present in their phones.

6) Opinion about the prices of NOKIA mobile phones

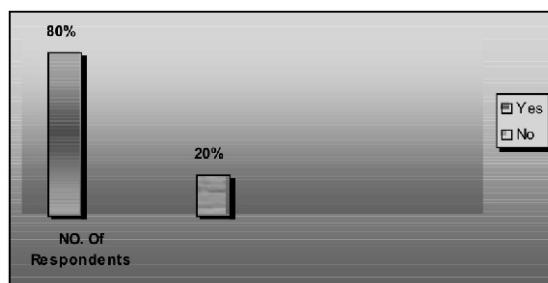
Opinion	Expensive	Affordable	Economical	Cheaper
Number Of Respondents	24	42	22	12
Percentage	24	42	22	12



From the above table it can be concluded that regarding the prices of NOKIA mobile phones, 24% said that they are expensive and 42% said that they are affordable, 22% said that they are economical and 12% said that they are cheaper.

7) Satisfaction level of service provided by the NOKIA service centers

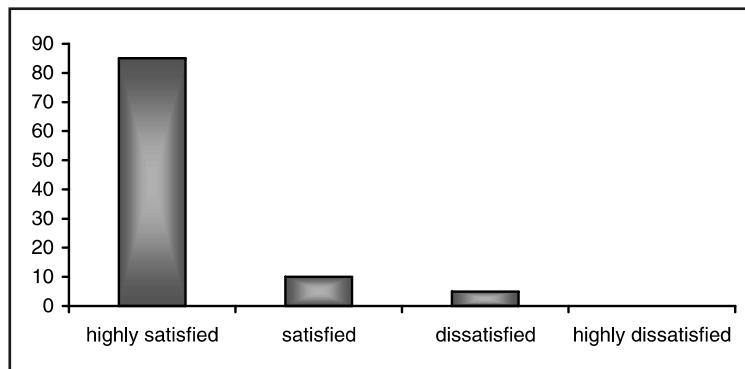
Option	Number Of Respondents	Percentage
Yes	80	80
No	20	20



The above table reveals that majority of customers are satisfied with NOKIA service centers. And only 20 percent of them are not satisfied about the service provided by the NOKIA service centers respectively.

8) Showing the satisfactory level of NOKIA mobile phones

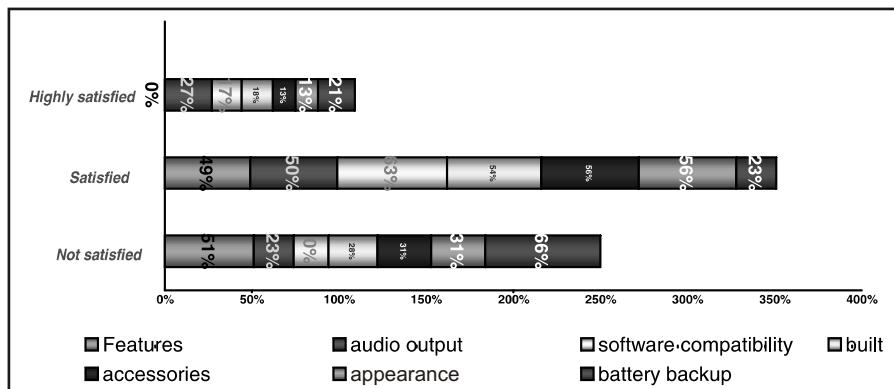
Option	Highly satisfied	Satisfied	Dissatisfied	Highly Dissatisfied
Number Of Respondents	85	10	5	0
Percentage	85	10	5	0



From the above table it is clear that 99% of the respondents prefer NOKIA phones and only 1% do not prefer NOKIA phones respectively.

9) Showing Classification based on satisfactory level

	Features	Audio output	Software compatibility	Built in memory	Accessories	Appearance	Battery backup
Fully Satisfied	51	23	20	28	31	31	66
Satisfied	49	50	63	54	56	56	23
Not Satisfied	---	27	17	18	13	13	21



Features: In the above analysis, 51% of the respondents gave their opinion as highly satisfied with the features of the mobile, 49% of respondents gave their opinion as satisfied, 0% of respondents were not satisfied.

Audio output: In the above analysis, 23% of respondents are highly satisfied with the audio output, 50% of respondents are satisfied, and 27% of respondents are not satisfied with this attribute.

Software compatibility: In the above analysis, 20% of respondents gave their opinion as highly satisfied with the software compatibility, 63% of respondents gave their opinion as satisfied, 17% of respondents gave their opinion as not satisfied with this attribute.

Built in memory: In the above analysis, 25% of respondents are fully satisfied with built in memory, 54% of respondents are satisfied, but 18% of respondents are not satisfied.

Accessories: In the above analysis, 31% of respondents are fully satisfied with the accessories, 56% of respondents are satisfied, and 13% of respondents are not satisfied.

Appearance: In the above analysis, 31% of respondents are fully satisfied with the appearance, 56% of respondents are satisfied, and 13% of respondents are not satisfied.

Battery backup: In the above analysis, 66% of respondents are fully satisfied with the battery backup, 23% of respondents are satisfied, and 21% of respondents are not satisfied.

(Cont. on page 48)

3. A more realistic approach should be devised while lending loans to the people; it should be made sure that the amount disbursed is utilized for the purpose it is granted for. Then only the key objective of cooperative banks could be achieved.
4. Nowadays, cooperative banks have to compete with commercial banks so it should be made viable at least for its surveillance. Like the three tier system of lending, the cooperative banks can device methods to attract more deposits. They can collectively improve their services by adopting facilities like ATM.
5. Rural Cooperative banks should improve member education as it deals with illiterate and less educated people. The members should be able to know what kind of loans they are availing, what are the benefits of it as compared to other loans and loans granted by other banks, what will be the impact of non-repayment of the loan etc.
6. Primary cooperative banks can be allowed to invest in industrial securities to a certain extent depending upon the degree of professional managers the bank possesses. So that the accumulated loss position in the cooperative banks can be reduced.

BIBLIOGRAPHY

1. Shah, Deepak (2000), 'Primary Agricultural Cooperative Credit Societies in Maharashtra: Some Emerging Issues', Prajnan, Vol. 29, No. 1, April-June, pp. 31-51.
2. Ramesha K (1996): Self-Help Groups: Emerging Cooperatives, paper presented at the National Seminar on Rediscovering Cooperation, November 19-21, 1996. Paper subsequently published in Rajagopal Redited Rediscovering Cooperation (Volume II), Institute of Rural Management Anand, 1996
3. Shivamaggi, H.B. (1996), 'Future Strategy for Development of Co-operatives', Economic and Political Weekly, Vol. XXXI, No. 20, pp. 1187-1188.
4. Ramesha K (2001): Monetary and Credit Policy 2001-2002: Implications for Urban Cooperative Banking Sector, paper presented at Seminar on New Credit Policy of RBI and Cooperative Credit Management, July 19, 2001, Department of Economics, Shivaji University, Kolhapur, India
5. Thamarajakshi, R. (1999), 'Agriculture and Economic Reforms', Economic and Political Weekly, Vol. XXXIV, August 14-20, p. 2293.
6. Ramesha K (2001): Credit Risk Management in Agricultural Cooperative Banks, National Seminar on Cooperative Reforms, January 24-25, 2001, National Bank for Agriculture and Rural Development and Vaikunth Mehta National Institute of Cooperative Management, Pune, India
7. Reserve Bank of India (2002): Report on Trend and Progress of Banking in India 2001-2002, RBI, Mumbai
8. Reserve Bank of India (1989): Report of the Agricultural Credit Review Committee, RBI, Mumbai
9. Reserve Bank of India (1999): Report of the High Power Committee on Urban Cooperative Banks, RBI, Mumbai
10. Reserve Bank of India (1991): Report of the Committee on Financial System, RBI, Mumbai
11. Government of India (1998): Report of the Committee on Banking Sector Reforms, RBI, Mumbai

(Cont. from page 38)

CONCLUSIONS

Most of the people are aware of NOKIA brand than others.

- Among the respondents, 50% of them have changed their mobile phone from other brands to NOKIA.
- Features and Battery played a key role for brand switching from other brands to NOKIA.
- Television advertisements influence most of the users to buy NOKIA phones and dealers play a key role in the channels of distribution.
- Majority of the respondents bought phones from the dealers.
- 44% of NOKIA users buy phones from the Gray market.
- Prices of NOKIA phones are affordable.

SUGGESTIONS

- NOKIA Care Centers should be within the customer's reach and hence Nokia should open more centers by giving dealerships.
- Nokia should stick to the quality with respect to Battery and features since it plays a key role in buyer's decision-making.
- Dealers and brand ambassador's role should be considered to attract new customers.
- Pamphlets don't have much impact on buyers buying process. So better not to use pamphlets as an advertisement media since its impact is less.
- It is necessary to avoid customers buying phones without invoice.
- Audio output of some models needs to be improved.
- Software compatibility of the new mobiles should be changed.

BIBLIOGRAPHY

1. Leon G. Schiffman, Lesile Lazar Kanuk, Consumer Behavior- Pearson Education, 8th Edition, 2004.
2. David L.Loudon, Albert J. Della Bitta, Consumer Behavior Tata McGraw-Hill Edition, 4th Edition, 2004.
3. Philip Kotler, Kevin Keller, Marketing Management-Prentice Hall India, 12th Edition, 2006.
4. V.S.Ramaswamy, S.Namakumari-Marketing Management Planning Implementation and Control, 2006.
5. Rajan Saxena, Marketing Management- Tata McGraw-Hill Edition, 2nd Edition, 2002.
6. Philip Kotler, Gary Armstrong, Principles of Marketing- Prentice Hall India, 11th Edition, 2006.
7. Naresh K. Malhotra, Marketing Research An Applied Orientation- Pearson Education, 3rd Edition, 2002.
8. Aaker, Kumar, Day, Marketing Research- John Wiley Sons Inc., 7th Edition.
9. Paul E Green, Donalds Tull, Gerald Albaum, Research for Marketing Decisions- Prentice Hall India, 5th Edition, 2002.
10. Prestige Journal of Management and Research, Vol. 11, April 2007- Prestige Institute of Management and Research.
11. Journal of Marketing, Vol. 70,July 2006 American marketing association.