

CONSUMER BUYING DECISION PROCESS :
A CUSTOMER PROFILE
OF
PROTON CARS BUYERS
FROM
1992 TO 1995.

A thesis submitted to the Graduate School in partial fulfillment
of the requirements for the degree
Masters of Science (Management)

by

James Phun **Jin** Eng.

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Abstrak.

Pemasaran kereta nasional - Proton yang **kini menguasai pasaran** Malaysia bukannya menjadi suatu perkara luar **biasa** kerana sikap pengurusan EON yang proaktif terhadap **situasi perniagaannya**. Dengan **penguasaan menyeluruh pasaran ini, maka terdapatnya** satu database **maklumat** mengenai pembeli-pembeli kereta Proton yang **juga menunjukkan bahawanya keupayaan pendapatan masyarakat pembeli kereta Malaysia** yang **kini** sudah meningkat. Rujukkan awal kepada **bahan-bahan kini** telah menunjuk bahawa tidak adanya satu model yang boleh hubung-kait **keseluruhan** gelagat pembeli kepada pembelian tertentu itu. Situasi **ini** tidak menjadi satu halangan kerana linear regression model yang **diamalkan** telah berupaya dan **telah memberikan suatu fahaman** bahawa pengaruh variable-variable gelagat pembeli-pembeli **ini** boleh diukur secara ranking **order**. Fakta-fakta gelagat pembeli yang **dipamirkan** adalah **satu manifestasi** mengapa pembeli **ini** dengan **gaya** kehidupan (lifestyle) terkini telah dan mampu boleh memilih **dan** membeli suatu model Proton **tertentu** dan bukan yang **nyata** lebih **sesuai** untuknya **Kegunaan** pakej statistik di dalam komputer peribadi telah pun menolong pengkajian gelagat pembeli **ini** dan **keputusan-keputusan tersebut** adalah **dilampirkan** disini. **Penghuraian** Bivariate Correlation telahpun menunjukkan bahawa wujudnya suatu hubungan linear **keatas** variable-variable pilihan tersebut. **Coefficient** Korelasi Produk **Momen** Pearson dapat jelaskan **hubungannya walaupun tafsiran** coefficient tersebut bukannya secara menyeluruh. Walau bagaimana pun, **satu** gambaran gelagat pembeli model Proton secara menyeluruh **untuk tahun-tahun tersebut** tidak **dapat diwujudkan secara** amnya, nyata tidak boleh **dinafikan** yang terdapatnya satu jenis **gambaran** gelagat pembeli **untuk satu-satu model Proton tertentu**. **Kaedah-kaedah** yang digunakan untuk linear regression model **tersebut** boleh **lagi** dihuraikan **dan** dikemaskan **untuk masa-masa akan datang**. **Ini mesti dirujuk** kepada **cabaran-cabaran industri** kereta tempatan yang **akan** datang dari segi 'saturation level' nya dan peringkat persaingan di **rantau ini**.

Abstract.

The market domination of EON in the domestic **passenger** car market is not surprising given the company's management rather proactive reactions and abilities towards changes in the business **environment**. This market share has been able to provide a database of customer information in the determination of this customer profile as it reflects the rising affluence of the Malaysian car buying population. Various marketing models were examined to provide some initial manifestation of the subject but not one single model has sufficiently explained these purchasing decisions. The present chosen linear regression model has, however been able to provide an initial understanding that the **influence** of these variables • customer profiles • have a measurable ranking **value**. Namely what affects a customer in his decision to purchase a particular Proton model as distributed by EON. The **final** invoiced price which is **determined** by these customer profiles is thus, a manifestation of these influences. The presence of **powerful statistical packages** on the personal computers has made significant improvements in the analysis and the results were tabulated as such. The Bivariate Correlation analysis has indicated a linear regressed relationship among the variables used and **the Pearson Product-Movement Correlation Coefficients** can explained **sufficiently** if not fully the relationships of these correlation coefficients. A single major customer **profile** was not and could not be determined as there NOW exists different segmented markets for different Proton models sold This is also perhaps due to the nature of **EON's** marketing practices. This initial limiting understanding was than further examined and a distinct customer profile was generated for a each particular Proton model as such. This linear regression model's forecasting ability can be further developed and refined as need be. This must be seen against the perceived **saturation** level of the domestic car market and increased market competition in due time.

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I am honor-bound to ***Mr. Donald Choo***, Executive Director of EON, who at one time in my career - **enlightened me and insisted that I do more than sell cars**. This is also true of ***Mr. Lee Wok Sang, Mr. Danny Wong, En. Mazlan Mansor and En. Norwin Mohd Nor*** who were most supportive of me going back to school.

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May the good Lord bless you all !

Dedication.

Through the most difficult, bitter and **uncertain** of times, she and she alone, had stood beside me. Now this is my time to stand by her, my wife and closest **confidante**, Sharon *Ong Beoy* Choo. The happiest of times, she has shared this love through my children *Stephen, Nicholas and Jennifer Phun*.

My mother,

Madam Lily Goh Kwee Thye

and

in memory of my late father,

Aloysius Phun Yeat Choon.

Table of Contents

	Page No
Permission to Use..	i
Abstract (Bahasa Malaysia)	ii
Abstract (English)	iii
Acknowledgments	iv
Dedication	v
Chapter I : Introduction	1
1.1. Contextofthe Study..	3
1.2. Research Objective.	4
1.3. Significance of the Study..	6
1.4. Firm’s Characteristics..	9
1.4.1 EON’S Organizational Structure	9
1.4.2. EON’s Market Practices.....	13
1.4.3. EON’s Market Segmentatio n	16
1.4.4. EON’s Sales Procedures.	18
Chapter II : Conceptual Framework,	22
2.0. Literature Review.	22
2.1. Consumer Buying Behavior.....	29
2.2. Monadic Models of Consumer Buying Behavior.	30
2.2.1. The Psychoanalytic Model.....	30
2.2.2. The ‘Black-Box’ Model.....	31
2.2.3. The Perceived Risk Model	32
2.2.4. Summary of the Monadic Models.	34

	Page No
2.3. Multi-Variate Models of Consumer Buying Behavior. ....	. 35
2.3.1. The Howard-Ostlund Model.	35
2.3.2. The Engel-Kollat-Blackwell (EKB) Model.....	. 38
2.3.3. Comparisons made between the Howard-Ostlund and the Engel-Kollat-Blackwell (EKB) Model.	4 1
2.3.4. The Nicosia Model. ....	. 43
2.3.5. The Andreasan Model. ....	. 46
2.3.6. Summary of Multi-Variate Models. ....	. 48
2.4. Decision-Process or Logical-Flow Model.....	. 49
2.4.1. Criticisms of the Logical-Flow or Decision-Buying Models.....	. 53
2.5. Individual Decision Making.	5 4
2.5.1. The Optimizing Decision-Making Model.	55
2.5.2. The Satisficing Model.	57
2.5.3. The Implicit Favorite Model.	59
2.6. Literature Summary.....	61
2.7. Research Model.. ....	. 64
2.7.1. The Transport and Road Research Laboratory (TRRL) Model. ....	. 64
2.7.2. The General Motors Automobile Ownership Theory.....	. 66
2.7.3. Other Causal Models.	68
2.7.4. Assumptions of Causal Modeling of Car Ownership. ....	. 70
2.8. Definition of Terms	72

Chapter III : Research Design and Methodology..... 75

3.0. Introduction	75
3.1. Delimitation's and Assumptions of the Study	77
3.1.1. Accurateness of Database Records	77
3.1.2. Consumer Buying Decision Process.....	78
3.1.3. The Geographical Location of the Branch	79
3.1.4. Completion of Questionnaires .....	. 79
3.1.5. Time Duration of Study Unde rtaken.	80

List of Tables :

Page No

Linear Regression Analysis for 1992 - 1995.

Table 26 : Edited Partial Output of the Models Summary	134
Table 27 : 1992 Summary	135

Edited Partial Output of the Linear Regression Analysis

Table 28 : Auto-Correlation..	138
Table 29 : Heteroscedasticity	140
Table 30 : Multi-Collinearity	143
Table 31 : Edited Partial Output for 1992	146
Table 32 : Model Summary for 1992.....	147
Table 33 : Edited Partial Output for 1993	148
Table 34 : Model Summary for 1993	149
Table 35 : Edited Partial Output for 1994	150
Table 36 : Model Summary for 1994..	151
Table 37 : Edited Partial Output for 1995	152
Table 37 : Model Summary for 1995..	154 - 155

4.1. Linear Regression Analysis	126
4.1. Interpretation of Correlation Analysis.....	118
4.1.1. Final Invoiced Values : BINIVAL	118
4.1.2. Age Comparisons : AGE.	121
4.1.3. Income Comparisons : INCOME	123
4.1.4. Literacy (Language Used) Comparisons : LTRCY	124
4.1.5. Marital Status Comparisons : MSTAT	125
4.1.6. Previous Car Comparisons : PREVC	126
4.1.7. Professional Status Comparisons : PROF	127
4.1.8. Ethnic Status Comparisons : RACE	128
4.1.9. Gender Status Comparisons : SEX	129
4.1.10. Hire-Purchase Loans and Period Comparisons :	130
4.1.11. Quarterly Period Comparisons	132
4.2. Linear Regression Analysis.....	133
4.3. Auto-Correlation	136
4.3.1. Decision Rules for Auto-Correlation	137
4.4. Heteroscedasticity	139
4.4.1. White's Decision Rule for Heteroscedasticity..	140
4.5. Multi-Collinearity	141
4.5.1. Decision Rules for Multi-Collinearity	142
Chapter V : Summary and Conclusions.	144
5.0. Introduction	144
5.1. Prediction Ability of the Regression Model	145
5.2. Model Degradation	156
5.3. Saturation Level.....	158
5.4. Conclusion Summary..	159

A. Notes : Operational Definitions

B. Appendices

1. Internal **Organization Structure**
2. Vehicle Sales Order (VSO) - Customer Copy
3. Vehicle Sales Order (VSO) - Sales Branch Copy
4. Vehicle Delivery Order (VDO) - VDO
5. Vehicle Invoice (VI) - Customer Copy
6. Vehicle Invoice (VI) - Sales Branch Copy
7. Pearson Correlation Coefficients for 1992
8. Pearson **Correlation** Coefficients for 1993
9. Pearson Correlation **Coefficients** for 1994
10. Pearson Correlation Coefficients for 1995

C. BIBLIOGRAPHIES

List of Tables :**Page No**

Actual Invoice Sales Breakdown by

Table 1 : Retail Type	88
Table 2 : Gender Type	90
Table 3 : Model Type	93
Table 4 : Professional Status .....	.95
Table 5 : Literacy-Language Used	97
Table 6 : Racial/Ethnic Composition .....	.99
Table 7 : Marital Status	101
Table 8 : Age Groups.....	103
Table 9 : Income Groups	105
Table 10 : Previous car Ownership	107
Table 11 : Preferences : Metallic Paint.....	109
Table 12 : Preferences : Finance Hire-Purchase Options	112
Table 13 : Preferences : Motor Insurance.....	114
Table 14 : Hire-Purchase Loan Period Financing of Proton Cars.....	117

Interpretation of Correlation Coefficient Analysis for 1992 - 1995.

Table 15 : BINIVAL - Final Invoiced Values	118
Table 16 : AGE	121
Table 17 : INCOME.....	123
Table 18 : LITERACY	124
Table 19 : MARITAL STATUS	125
Table 20 : PREVIOUS CAR OWNERSHIP	126
Table 21 : PROFESSIONAL STATUS	127
Table 22 : RACE.....	128
Table 23 : SEX.....	129
Table 24 : LOAN_AMT and LOAN-PERIOD	130
Table 25 : QTR1 to QTR4	132

List of Tables :

Page No

Linear Regression Analysis for 1992 - 1995.

Table 26 : Edited Partial Output of the Models Summary	134
Table 27 : 1992 Summary	135

Edited Partial Output of the Linear Regression Analysis

Table 28 : Auto-Correlation..	138
Table 29 : Heteroscedasticity	140
Table 30 : Multi-Collinearity	143
Table 31 : Edited Partial Output for 1992	146
Table 32 : Model Summary for 1992.....	147
Table 33 : Edited Partial Output for 1993	148
Table 34 : Model Summary for 1993	149
Table 35 : Edited Partial Output for 1994	150
Table 36 : Model Summary for 1994..	151
Table 37 : Edited Partial Output for 1995	152
Table 37 : Model Summary for 1995..	154 - 155

List of Figures :**Page No**

Figure 1 :	Demographic Influences on Markets.	5
Figure2 :	The Perceived Macro-Elements Affecting Car Ownership. ....	.7
Figure3 :	EON's Customer Queuing Sequence.	14
Figure4 :	EON's Customer Speculative Queuing Sequence	15
Figure5 :	EON's Five Competitive Forces.	16
Figure6 :	Segmentation and Strategy	17
Figure7 :	EON's Sales Procedures	21
Figure 8 :	The 'Black-Box' Model of Buying Behavior. ....	.31
Figure9 :	Factors that Influence Perception	32
Figure 10 :	Cox's Perceived Risks Model. ....	.33
Figure11 :	The Howard-Ostlund Model	37
Figure 12 :	The Engel-Kollat-Blackwell Model. ....	.39
Figure 13 :	The Revised Engel-Kollat-Blackwell Model.	40
Figure 14 :	The Nicosia Model. ....	.45
Figure 15 :	The Andreasan Model. ....	.47
Figure 16 :	The Decision-Process or Logical-Flows Models. ....	.49
Figure 17 :	The Optimizing Decision-Making Model.....	56
Figure 18 :	The Satisficing Model.	58
Figure 19 :	The Implicit Favorite Model.	60
Figure20 :	Chosen Model of Consumer Purchasing Decision Process. ....	.63
Figure21 :	Schematic Diagram describing the relationship between the Customer Profile variables and its determinants to Proton Sales.	74
Figure22 :	Market Share (% Total Passenger Market).	76
Figure23 :	Market Share (below 1600cc)	76
Figure24 :	Actual versus Revised Records Used in Study.	77
Figure25 :	Company Total Invoiced Sales. ....	.80
Figure26 :	Study Sample against Total Company Invoiced Sales.81
Figure27 :	Actual Model Codes Used91



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Chapter I

Introduction

There is without much doubt that Malaysia has proceeded much rapidly in its economic development. The annual Gross Domestic Product (GDP) is experiencing growth between 7% to 9% in the last few years. In Liden's (August 1992) article in **Euromoney, the fact concurs and remains that this rapid rise in this country's economic development has also seen a corresponding increase on the burden on the country's present infrastructure. These increases could be attributed to the pent-up consumer demand which has also, seen a rapid increase in the ownership of private passenger cars on Malaysian roads.**

Alternatively, the motorcar and its widespread usage is often referred to as a symbol of the development of **a modern industrialized society. The availability of a motorcar** endorses the benefits of enhanced mobility and diverse opportunities to the vehicle owner. At the same time, motor vehicle use also imposes **significant** environmental pollution burdens and animosity on others. Roads have now become bottlenecks and **there are now observed traffic jams where there was none in the past in most towns in Malaysia.** Additionally, the growth in motorcar usage and travel has been on the expense and **detriment of other forms** of land **transport**, which has to **suffer** increased **traffic** congestion and **often** reduced business patronage. Finally, the consequential decline in **public transport has left many non car-owing households with poorer access to** transportation and perhaps diminished welfare. (Button, Pearman & Fowkes, 1982)

This is the **multi-faceted impact of high levels of car ownership on modern** industrialized society which requires both improved transport planning and management techniques, which would sanction the benefits of **maximum car ownership and at the same time try to restrain the adverse effects** on the wider environment. Here, to formulate such planning and management **policies, it is important and a requirement to** thoroughly understand the influences determining car ownership patterns and forecasts **future** changes in this **ownership patterns.**

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Bibliography

- Aaker, D.A., Kumar, V., & Day, G.S., (1995). *Marketing Research (5th Ed.)* John Wiley & Sons, Inc., New York.
- Adcock, D., Bradfield, R., Halborg, A., & Ross, C., (1995). *Marketing : Principles and Practice. (2nd Ed.)*. Pitman Publishing, London
- Aley, James (July 1994). "Have Car Sales Peaked ?" *Fortune* Vol: 130, Iss: 1, p. 20+
- Andreasan, Alan R., (1965). Attitudes and Consumer Behaviour : A Decision Model in *New Research in Marketing*, Preston, Lee E., (ed.), Institute of Business and Economic Research, University of California, Berkeley.
- Azmi bin Abdul Wahab, Dato', (1995). *Projek Kereta Nasional : Simbol Wawasan KeArah* 2020. Antilla Sdn. Bhd., Shah Alam, Selangor.
- Ben-Akvira, M.E., and Atherton, T.J., (1977). "Choice Model Predictions of Car Pool Demand : Methods and Results ", *Transportation Research Record*, 637, p. 13-17
- Ben-Akiva, M.E., and Lerman, S.R., (1974). "Some Estimation Results of A Simultaneous Model of Auto Ownership and Mode Choice to Work". *Transportation*, Vol:3, p. 357-76
- Berenson, M.L., & Levine, D.M., (1996). *Basic Business Statistics : Concepts and Applications. (6th Ed.)*. Prentice-Hall International Inc., Englewood Cliffs, New Jersey.
- Bradley, F., (1995). *Marketing Management : Providing, Communicating & Delivering Value*. Prentice-Hall International Inc., Englewood Cliffs, New Jersey.
- Bredin, Alice (April 1992). "Lead Tracking Software : Something for Every Budget." *Computerworld*, Vol:26, Iss: 16, p. 117+
- Britt, Phil (July 1994). "Dividing and Conquering." *Savings and Community Banker*, Vol:3, Iss:7, p. 35-37+
- Bozman, Jean S. (December 1994). "Stand-Alone Point-Of-Sale Systems Suit Men's Retailer." *Computerworld*, Vol:28, Iss:5 1, p. 45-46+
- Button, K. J., Pearman, A.D., Fowkes, A. S., (1982). *Car Ownership Modelling and Forecasting*. Gower Publishing Company Limited, England
- Chisnall, P.M., (1995). *Consumer Behaviour. (3rd Ed.)*. McGraw-Hill Book Company. London, England.

- Crissey, John C Jr., Ward, Richard D (May/June 1995). "Developing Market-Based Adjustment for the Comparative Sales Approach Using Regression **Analysis.**" **Assessment Journal. Vol:2, Iss:3, p.50-53+**
- David, F.R., (1995). *Strategic Management. (5th Ed.)*. Prentice-Hall International Inc., Englewood Cliffs, New Jersey.
- Dickerson, J.L., Kosnik, T.J., & Lazier, W.C., (1995). Product/Market Strategy in Collins, J. & Lazier, W.C., (eds) *Managing the **Small** to Mid-Size Company : Concepts and Cases*. Richard D. Irwin Chicago.
- Dobson, P., Starkey, K., (1993). *The Strategic Management Blueprint*. Blackwell Publishers, Oxford, United Kingdom.**
- Donatos, George., Kioulafas, Kyriakos.,(August 1992). "Determinants of Car Sales : The Greek Case." *Marketing & Research Today. Vol:20, Iss:3, p. 170-174***
- Engel, James F., Kollat, David J., Blackwell, Roger D., (1978). *Consumer Behaviour. Dryden Press, New York.***
- Engel James F., Blackwell, Roger D. & Miniard, Paul W., (1993). *Consumer Behavior. (7th Ed.)*. Dryden Press, Harcourt-Brace Javanovich, Florida.**
- Evans, M.K., (1970). "The Prediction of Car Ownership - A Comment." *Journal of Transport Economics and Policy. Vol:4, p.89-99*
- Fitzsimmons, J.A., & Fitzsimmons, MJ., (1994). *Service Management For Competitive Advantage*. McGraw-Hill International Editions, New York.
- Forester, J., (Jan-Feb. 1984). "Bounded Rationality and the Politics of Muddling Through", *Public Administration Review*. p. 23-3 1
- Freund, E. John Simon, A. Gary. (1995). ***Statistics : A First Course. (6th Ed.)*** Prentice-Hall Inc., Englewood Cliffs, New Jersey.
- Gerds, Thomas (March 1992). "Making the Right List Decision for Improved Telephone Marketing." ***T&marketing Magazines***. Vol: 10, Iss:9, p. 58-63
- Gujarati, D.N., (1988). Basic Econometrics. (2nd Ed.), in Kihnan Shin (1996 Ed.). ***SPSS Guide for DOS Version 5.0 and Windows0 Versions 6.0 and 6. I .2. (2nd Ed.)***, The Irwin Statistical Software Series, **Irwin, Chicago.**
- Guiltinan, Joseph P., Gordon W. Paul. (1994). ***Marketing Management : Strategies and Program.*** (5th Ed.) International Edition. McGraw-Hill Inc.

- Hair, Joseph F. Jr.; Anderson E. Rolph ; **Tatham**, Ronald L., (1987). **Multivariate Data Analysis with Readings**. (2nd Ed.), Macmillan Publishing Co., New York.
- Hamilton, C. Lawrence (1990). **Modern Data Analysis : A First Course in Applied Statistics**. Brooks/Cole publishing Co., California.
- Howard, John A., (1963). *Marketing Management, Analysis and Planning*. Richard D. Irwin, Homewood, Illinois.
- Howard, J. A., & **Ostlund**, L., (1973). *Buyer Behaviour : Theoretical and Empirical Foundations*, Knopf, New York.
- Kobak, Thomas. (October 1993). “How to Unmask Your Customers ?” **American Demographics**. Iss : Marketing Tools Supplement, p. 8-10+
- Kotler, Philip. (1994). **Marketing Management : Analysis, Planning, Implementation and Control**. (5th Ed.), *Prentice-Hall* International Editions.
- Let-man, S.R., (1976). “Location, Housing, automobile Ownership and Mode to Work : A Joint Choice Model”, *Transportation Research Record*, 610, p. 6-11
- Liden**, Jon. (August 1992). “**Infrastructure**: Building Up the Basics.” **Euromoney**. Iss: Malaysia Supplement, p. 81-82
- Lim C.P., & Fong C.O. (1983). Ancillary Firm Development in the Malaysian Motor Vehicle Industry. In *Odaka, K., (1983 Ed.) The Motor Vehicle Industry in Asia A Study of Ancillary Firm Development*. p. 85-177+. For the Council For Asian Manpower Studies, Singapore University Press.
- Lunn, J. A., (197 1). “Review of Consumer Decision Process Models”, ESOMAR, Helsinki.
- Lunn, Tony, (1978). “Consumer **Modelling**”, in *Consumer Market Research Handbook* Robert Worcester and John **Downham** (eds.), Van Nostrand Reinhold, Wokingham.
- Lyons, Fran. (May/June 1993). “Using Segmentation Analysis.” **Credit World**, Vol:81, Iss:5, p. 36-37
- Manski**, C.F., Sherman, L., and Ginn, J.R., (1978). *An Empirical Analysis of Household Choice Among Motor Vehicles*, Cambridge **Systematics** Inc, Massachusetts.
- McClain**, J.O., & *Thomas*, J.L., (1992). *Operations Management : Production of Goods and Services*. (3rd Ed.), Prentice-Hall Inc., Englewood Cliffs, New Jersey.

- McLeod, R, Jr.**, (1995). *Management Information Systems*. (6th Ed.). Prentice-Hall Inc., Englewood Cliffs, New Jersey.
- McKenna**, Regis. (January/February 1991). "Marketing is Everything." *Harvard Business Review*. **Vol:69**, No: 1, p. 65-79
- Mellott**, Douglas W. Jr., (1984). *Fundamentals of Consumer Behavior*. **MacMillian** Publishing Co., United States.
- Mills, Debbie. (August 1993). "Finding The Likely Buyer Using Rough Sets Technology." *American Salesman*. **Vol:38, Iss:8**, p. 3-5+
- Newbold, P. (1995). *Statistics for Business & Economics*. (4th Ed.), **Prentice-Hall** International Inc., Englewood Cliffs, New Jersey.
- Nicosia, Francesco M., (March 1968). "Advertising Management, Consumer Behaviour and Simulation", *Journal of Advertising Research*, Vol: 8, No: 1
- Paul Peter, J. & Olson, J.C., (19%). *Consumer Behavior & Marketing Strategy*. (4th Ed.) Irwin Boston.
- Peppers, L.C., & Bails, D.G., (1987). *Managerial Economics : Theory & Applications For Decision Making*. Prentice-Hall, Inc., Englewood Cliffs, New Jersey.
- Peters, Tom. (1992). *Liberation Management : Necessary Disorganization for the Nanosecond Nineties*. New York Alfred A. Knopf
- Porter, M. E., (1985). *Competitive Advantage*. New York : Free Press
- Porter, M. E., (1990). *The Competitive Advantage of Nations*. New York : Free Press
- Porter, M. E., & Millar, V.E., (July/August 1985). "How Information Gives You Competitive Advantage". *Harvard Business Review*, p. 149- 160
- Pride, W.M., Ferrell, O.C., (1995). *Marketing : Concepts and strategies*. *International Edition*. (9th Ed). Houghton Mifflin Company. Boston.
- Rados, D.L., (June 1972). "Selection and Evaluation of Alternatives In Repetitive Decision Making", *Administrative Science Quarterly*, p. 196-206
- Ries, Al & Trout, Jack. (April 1986). "Marketing is War". *Journal of Marketing*. **Vol:49, No:2**, p. 297-304.
- Robbins**, Stephen P., (1996). *Organizational Behavior : Concepts, Controversies and Applications*. (7th Ed.). Prentice-Hall International Editions, A Simon & Schuster Company, Englewood Cliffs, New Jersey.

- Salmon, **Alan** (1992). "Accounting Software Update." **Computers** in *Accounting*, **Vol:8, Iss:7**, p. **45-49**
- Silberston, A., (1970). "Automobile **Use** and the Standard of Living in East and West", *Journal of Transport Economics and Policy*. Vol.4, p. 1-12.
- Sekaran, Uma (1984). **Research Methods for Business : A Skills Building Approach**. (2nd Ed.), John Wiley and Sons Inc.
- Smeets, **Maarten**. (1993). "The Car In The World Economy." **OECD Observer**. Iss: 180, p. **23-25+**
- Smith, Ian.*, (1994). *Meeting Customer Needs*. Butterworth-Heinemann Ltd, Jordan Hill, Oxford
- Soelberg, P.O., (Spring 1967). "Unprogrammed Decision Making". *Industrial Management Review*. p. 19-29
- Solomon, Michael R., (1990). *Consumer Behavior : Buying, Having & Being*. (3rd Ed.) **Prentice-Hall** Inc., Englewood Cliffs, New Jersey.
- Stahl, M.J., & Grigsby, D. W.*, (1992). *Strategic Management for Decision Making*. PWS-Kent Publishing Co., Boston.
- Stanley, T.L., (1995). "Kiddie Cars." **Brandweek**. **Vol:36, Iss:40**, p. 38-40
- Stemthal, Brian **& Craig**, Samuel C., (1982). *Consumer Behaviour: An Information Processing Perspective*, Prentice-Hall, Englewood Cliffs, New Jersey.
- Train, K., (1980). "A **Structured Logit** Model of Auto Ownership and Mode Choice", *Review of Economic Studies*, **Vol:47**, p. 357-70
- Trecee**, James B. and Miller, Karen Lowry. (1994). 'New Worlds to Conquer.'" **Business Week**. **Iss:3360**, p. 50-52
- Turban, E., **& Meredith**, J.R., (1994). *Fundamentals of Management Science*, (6th Ed.). Richard D. Irwin, Burr Ridge, Illinois
- Udell**, Jon G., **& Lacziak**, Gene R, (1981). **Marketing In An Age of Change : An Introduction**. John Wiley **& Sons** Inc., New York.
- Urban, L. Glen **& Star**, H. Steven. (1991). *Advanced Marketing Strategy : Phenomena, Analysis, and Decisions*. Prentice-Hall Inc., Englewood Cliffs, New Jersey.

- Webster, A. (1995) Applied Statistics for Business and Economics. (2nd Ed.) in Kilman Shin (19th Ed.). *SPSS Guide for DOS Version 5.0 and Windows0 Versions 6.0 and 6.1.2.* (2nd Ed.), The Irwin Statistical Software Series, **Irwin**, Chicago.
- Wells, **William D. &** Prensly David., (1996). *Consumer Behavior*. John Wiley **&** Sons Inc., Canada.
- Wilkie, William L., **&** Dickson, Peter L., (1991). "Shopping for **Appliances** : Consumers' Strategies and Patterns of Information Search" in *Perspectives in Consumer Behavior*, Harold H. **Kassarjian** and Thomas S. Robertson (eds.), Prentice-Hall, Englewood Cliffs, New Jersey.
- Zikmund, William G., (1994). *Business Reseacrh Methods.* (4th Ed.), International Edition. The **Dryden** Press, **Harcourt** Brace College Publishers