

# THE RELATIONSHIP BETWEEN SERVICE DELIVERY DIFFERENTIATION AND ARCHITECT'S SPECIFICATIONS: THE STUDY OF METAL ROOFING INDUSTRY IN SABAH

# JUDITH IGNATIUS OTAU

PERPUSTAKAAN IMMUTRAITI MALAYSIA SABAM

SCHOOL OF BUSINESS AND ECONOMICS UNIVERSITY MALAYSIA SABAH 2006





# THE RELATIONSHIP BETWEEN SERVICE DELIVERY DIFFERENTIATION AND ARCHITECT'S SPECIFICATIONS: THE STUDY OF METAL ROOFING INDUSTRY IN SABAH

# JUDITH IGNATIUS OTAU

# A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

# SCHOOL OF BUSINESS AND ECONOMICS UNIVERSITY MALAYSIA SABAH 2006



PUMS 99:1

#### UNIVERSITI MALAYSIA SABAH

#### BORANG PENGESAHAN STATUS TESIS @

JUDUL : THE RELATIONSHIP BETWEEN SERVICE DELIVERY DIFFERENTIATION AND ARCHITECT'S SPECIFICATIONS: THE STUDY OF METAL ROOFING INDUSTRY IN SABAH

IJAZAH : Master of Business Administration (MBA)

SESI PENGAJIAN : 2003 - 2006

Saya, JUDITH IGNATIUS OTAU mengaku membenarkan tesis Sarjana ini disimpan di Perpustakaan Universiti Malaysia Sabah dengan syarat-syarat kegunaan seperti berikut:

- 1. Tesis adalah hakmilik Universiti Malaysia Sabah
- 2. Perpustakaan Universiti Malaysia Sabah dibenarkan membuat salinan untuk tujuan pengajian sahaja.
- 3. Perpustakaan dibenarkan membuat salinan tesis ini sebagai bahan pertukaran antara institusi pengajian tinggi.
- 4. TIDAK TERHAD

Disahkan oleh

(Penulis: JUDITH IGNATIUS OTAU)

Alamat Tetap: P.O.BOX 14102, 88722 Kota Kinabalu, Sabah.

Tarikh: 21 Julai 2006

(TANDATANGAN PUSTAKAWAN)

(DR. KALSOM ABDUL WAHAB)

Tarikh: 21 Julai 2006

CATATAN: @ Tesis dimaksudkan sebagai tesis bagi Ijazah Doktor Falsafah dan Sarjana secara penyelidikan, atau disertasi bagi pengajian secara kerja kursus dan penyelidikan, atau Laporan Projek Sarjana Muda (LPSM).



## DECLARATION

The materials in this thesis are original except for quotations, excerpts, summaries and references, which have been dull acknowledge.

JUDITH IGNATIUS OTAU PS03-002(K)-038 21<sup>st</sup> July 2006



### ACKNOWLEDGEMENTS

First and foremost, I would like to thank GOD for giving me the courage, strength and endurance needed to complete this research on time. I would also like to thank my supervisors, Dr. Kalsom Abdul Wahab and Dr. Fumitaka Furuoka for their endless efforts, patience, advice, and comments. Not forgetting also to all my MBA lecturers -Prof. Madya Dr. Zainal Abidin Said, Prof. Madya Dr. Amran Ahmad, Assoc. Prof. Dr. Roselina Ahmad Saufi, Asso. Prof. Dr. Syed Azizi Syed Wafa and other lecturers for their endless effort in imparting their knowledge for me ever since the very beginning. To Mr. Luke Lok of BlueScope Lysaght (Sabah) Sdn Bhd for his kind assistance in the process of understanding the industry, my family especially my dear sister Jenny for her brilliant ideas which I would not have been able to do without and my fiancée for his unconditional love and never ending support and understanding. My workmates Sharen, Monica and Freda, and most of all my MBA classmates Valeria, Suriati, Lyianna, Aina and Cynthia for their help and most of all for the friendship that I have found in them. Thank you.



ABSTRACT

This study was carried out on all the private architect firms and relevant government department within the Kota Kinabalu area. The main aim of this study is to investigate on the existence of the relationship between service delivery differentiation and architect's specifications. It is also the aim of this study to investigate whether price and quality variable may moderate the relationship between service delivery differentiation and architect's specifications. However, after conducting a questionnaire survey at both the sector, with a sample of 87 respondents, it was discovered that out of three dimensions that represents service delivery differentiation, only one were found to be significant in the relationship between service delivery differentiation and architect's specifications. In addition to that, it was discovered that the suggested moderating variable, one had moderating effect which is price and the other that is quality had no moderating effect towards the relationship. Apart from that, the study was able to gather some information pertaining to the specifier of the building industry in Sabah and also provide some insight knowledge regarding the service delivery of metal roofing manufacturer in relation to architect's specifications.



#### ABSTRAK

## HUBUNGAN DIANTARA PEMBEZAAN PENYAMPAIAN SERVIS DAN SPESIFIKASI ARKITEK : KAJIAN KEATAS INDUSTRI PEMBEKAL ATAP KELULI DI SABAH

Kajian ini telah dijalankan di kesemua firma arkitek swasta dan juga jabatan kerajaan yang berkaitan di kawasan Kota Kinabalu. Tujuan kajian ini adalah untuk mengenalpasti kewujudan hubungan antara pembezaan penyampaian servis dan spesifikasi arkitek bangunan. Ia juga menjadi sasaran kajian ini untuk menyiasat adakah perubah harga dan kualiti boleh menyerdehanakan hubungan tersebut. Walaubagaimanapun, selepas menjalankan tinjauan melalui senarai soalan di keduadua sektor tersebut dengan 87 sampel responden, didapati hanya 1 daripada 3 dimensi yang mempunyai makna dalam hubungan antara pembezaan penyampaian servis dan spesifikasi arkitek. Sehubungan dengan itu, didapati salah satu perubah yang dicadangkan iaitu harga mempunyai kesan mengubah manakala kualiti tidak mempunyai kesan terhadap hubungan tersebut. Selain dari itu, kajian ini dapat mengumpul informasi berkenaan dengan arkitek industri bangunan di Sabah dan juga dapat memberi pengetahuan berkenaan dengan hubungan antara pembezaan penyampaian servis dan spesifikasi arkitek.



TITLE	Page	
TITLE	i	
DECLARATION	ii	
ACKNOWLEDGEMENT	iii	
ABSTRACT	iv	
ABSTRAK	v	
TABLE OF CONTENTS	vi	
LIST OF TABLES	ix	
LIST OF FIGURES	x	
LIST OF APPENDICES	xi	
CHAPTER 1: INTRODUCTION		
1.1. Overview	1	
1.2. Research problem	4	
1.3. Purpose of study	5	
1.4. Significance of study	5	
1.5. Scope of the study	5	
1.6. Definition of term	6	
1.6.1. Service Delivery Differentiation	6	
1.6.2. Architect	6	
1.6.3. Specifications	7	
1.7. Organization of study	7	
CHAPTER 2: LITERATURE REVIEW		
2.1 Introduction	8	
2.2 Service delivery differentiation	8	
2.3 Architect	11	
2.4 The role of an architect as an opinion leader	12	
2.5 Legal requirement	14	
2.6 Specifications	14	
2.7 Complex decision making	17	
2.8 Previous study on service delivery differentiation and		



Architect's	specifications	
0.0		

2.9 Summary

## CHAPTER 3: METHODOLOGY

3.1 Introduction	22
3.2 Theoretical framework	22
3.3 Research hypotheses	23
3.4 Definition of variables	23
3.4.1 Reliability	24
3.4.2 Resilience	24
3.4.3 Innovativeness	24
3.4.4 Architect's specifications	24
3.4.5 Price	24
3.4.6 Quality	25
3.5 Research design	25
3.6 Unit of analysis	25
3.7 Instrument	26
3.8 Population sample	26
3.9 Data collection method	26
3.10 Data analysis	27
3.11 Summary	27

# **CHAPTER 4: RESULT**

4.1 Introduction	28
4.2 Questionnaire	28
4.3 Respondents profile	28
4.4 Reliability of measurement	32
4.5 Statistics of variables	32
4.5.1 Descriptive analysis on service delivery differentiation	33
4.5.2 Descriptive analysis on architect's specifications	35
4.5.3 Descriptive analysis on compounded variables	36
4.6 Hypotheses testing	37
4.7 Summary	47



21

# CHAPTER 5: DISCUSSION

5.1 Introduction	49
5.2 Recapitulation of the study	49
5.3 Findings of study	50
5.3.1 Architect's profile	51
5.3.2 Service delivery differentiation and architect's	51
specifications	
5.3.3 Moderating effect of price and quality	53
5.4 Implications of findings	55
5.5 Direction for future research	58
5.6 Limitations of study	58
5.7 Conclusion	59
REFERENCES	61

## APPENDICES

67



# LIST OF TABLES

# TITLE

Table 1.1	List of Metal Roofing Manufacturer in Sabah	2
Table 3.1	Statistical methods for hypotheses testing	27
Table 4.1	Summary of Respondents Profile	29
Table 4.2	Summary of the Distribution of Questionnaire at Respective	30
	Private Firms and Government Departments	
Table 4.3	Cronbach's Alpha Value for Variables	32
Table 4.4	Summary of Compounded Variables	36
Table 4.5	Result Summary for Multiple Regression (Reliability)	39
Table 4.6	Result Summary for Multiple Regression (Resilience)	40
Table 4.7	Result Summary for Multiple Regression (Innovativeness)	41
Table 4.8	Result Summary for Multiple Regressions (Overall)	42
Table 4.9	Summary of Hierarchical Regression to Analyze The	44
	Moderating Effect of Price on the Relationship Between	
	Service Delivery Differentiation and Architect's Specifications	
Table 4.10	Summary of Hierarchical Regression to Analyze The	47
	Moderating Effect of Quality on the Relationship	
	Between Service Delivery Differentiation and Architect's	
	Specifications	
Table 4.11	Summary of Findings	48





.

# **IST OF FIGURES**

TITLE

# Figure 1.1Development Process3Figure 2.1Consumer Decision Making17Figure 3.1Theoretical Framework22



Page

# LIST OF APPENDICES

# TITLE

Page

Appendix A	Questionnaire	67
Appendix B	Respondents Profile	75
Appendix C	Reliability Analysis	78
Appendix D	Descriptive Analysis	85
Appendix E	Multiple Regression	88
Appendix F	Hierarchical Regression Result	92
Appendix G	Hierarchical Regression Result	97



#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 Overview

The metal roofing manufacturing is nothing new to the industry in Sabah. It has been in existence way back since the 1970's. There are few strategies adopted by the metal roofing manufacturer in capturing their market and selling their products. One of the marketing strategies is through recommendation of the influencer of the industry, who the architects are holding the title as the prime consultant in any building planned to be built. As it is a legal requirement to engaged a prime consultant to propose specific roofing material to be used in any construction, a vital strategy would be to concentrate on relationship building and promoting products to the architects, who ultimately influence the final decision maker (e.g. developer, building owner, end user) to use a particular company's roofing brand.

Basically, the Malaysian roofing industry system is made up of four groups; the specifier who is the architect, manufacturers who produce the connectors, roof structure system, the fabricator for the pre-fabricated trusses, and the contractor to install the roof on the building. As shown in figure 1.1., both stage at Submission of Development Plan and Submission of Building Plan to the local authority for approval should be submitted and signed by the architect or any other qualified person as stated in the Uniform Building By-Laws 1984. This gives us an understanding of the authoritative power given to architects in projects development process.



No.	Metal Roofing Manufacturer	Location
1	BlueScope Lysaght (S) Sdn Bhd	Inanam, Kota Kinabalu, Sabah
2	City Top Enterprise Sdn Bhd	Inanam, Kota Kinabalu, Sabah
3	Steelon (M) Sdn Bhd	Inanam, Kota Kinabalu, Sabah
4	Munibase Corporation Sdn Bhd	Inanam, Kota Kinabalu, Sabah
5	K-Steel Industries Sdn Bhd	Telipok, Sabah
6	Cooldec Industries Sdn Bhd	Tawau, Sabah

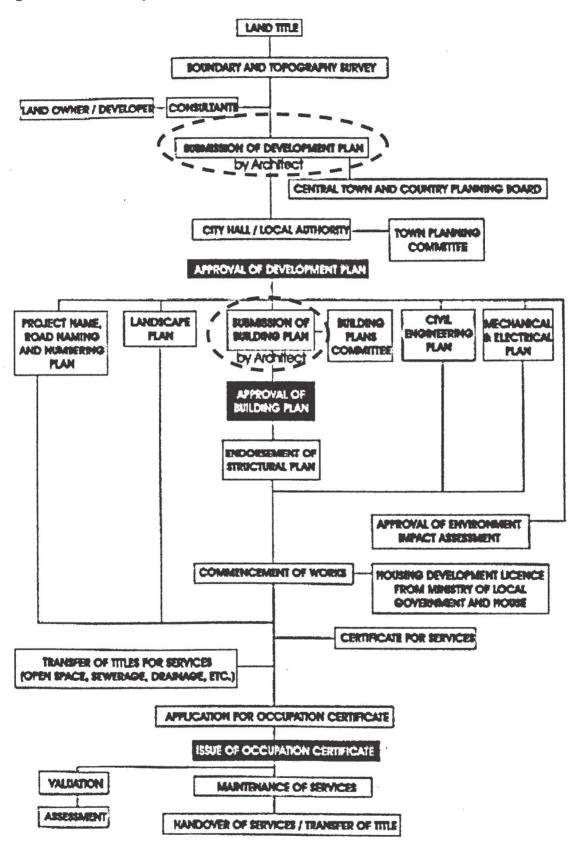
#### Table 1.1: List of Metal Roofing Manufacturer in Sabah

(Source : Main Manufacturing Directory)

As it is important to maintain a good relationship with the architects, the roofing manufacturer must not oversee the importance to deliver quality services to the consultants as premier or quality roofing products alone cannot guarantee architects specification to certain metal roofing manufacturer. More than 25 years ago, Levitt (1972) assumes that everybody is in the business of service. More recently, Berry and Parasuraman (1991) suggests that manufacturing companies are, in fact, also service companies, and similarly, Bitner (1997) asserts that all businesses are service businesses in some form. Additionally, the introductions too many service marketing textbooks emphasize the importance of service in the manufacturing sector (Lovelock, 1996; Rust et al., 1996; Zeithaml and Bitner, 1996). Considerable research in the fields of marketing and management has revealed the need for service-offering strategies in manufacturing firms (Cespedes, 1994; Johnson et al., 1998; Samli et al., 1992)







(Source: Pertubuhan Akitek Malaysia – Sabah Chapter)



#### 1.2 Research Problem

According to Berry et al. (1995), the gap between manufacturing and marketing is legendary. Traditional differences separate these key functional areas. Some argue that reason include difference cultures, value systems and traditions differences. Others view it as a more fundamental division based, at least in part, on status and level of corporate influence. Whatever the origins, companies can no longer line with such preferences or functional whims. With increased competition it is imperative to eliminate this problem if a company is to succeed.

Therefore, in order to maintain sustainability, the metal roofing manufacturers must deliver differentiated services to the industry opinion leader or influencer that in this case, are the architects. One of the viable strategies is to focus on product differentiation by offering quality service (Weinrauch and Natarajan, 1992). Service includes all interactions between a business and its customers, beginning with the initial contact and extending through the actual sale and delivery of a product, to include all services provided afterward (Lamb, Hair et al., 1992) Using this definition, service is delivered in all market transactions, whether or not any tangible goods are involved. This research is an attempt to go at least some way in addressing the relationship between service delivery differentiation and architect's specification.

In general the research problems addressed by the researcher are:

- To what extent is the service delivery differentiation relate to the architect's specification?
- 2. To what extent is the relation between service delivery differentiation and architect's specification moderated by the product quality and price?



#### 1.3 Purpose of the Study

The purpose of the study is to find the relationship between service delivery differentiations on architect's specification decision on Sabah metal roofing industry. To measure service delivery differentiation, three level of differentiation will be measured (Kotler, 2003), which include reliability, resilience and innovativeness. This research will study the relationship of service delivered between architects specification in a manufacturing industry in which tangible products are offered and to investigate how far service delivery effect the architect's specification and the moderating effect of price and quality on the relationship of service delivery and architects specification. Architect in this context is the opinion leader of the building industry. Hence, for the purpose of this study, architects specification will be measured according to its complexity of its making decision.

#### 1.4 Significance of Study

There has been a limited research done on service delivery differentiation and architect's specification. Therefore, this research would significantly contribute and benefit both in practicality and academic.

#### 1.5 Scope of Study

The respondent of this study focus on architects registered under PAM (Pertubuhan Akitek Malaysia – Sabah Chapter) as the study is concentrated on architect's specification. The study covered Kota Kinabalu area in the state of Sabah, Malaysia. The building architect would include those working under the government departments and private architect firms.



#### **1.6 Definition of Terms**

For the purpose of this study, the following terms may need to be further clarified to avoid confusion on what is means in the context of this study.

#### **1.6.1 Service Delivery Differentiation**

A contemporary definition provided by Kotler et al. (1996) states that: "service is any activity or benefit that one party can offer to another which is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product".

Service or Product Company can differentiate itself by designing a better and faster delivery system. According to Kotler (2003), there are three levels of differentiation. The first is reliability. Some suppliers are more reliable in their on-time delivery, order completeness, and order-cycle time. The second is resilience. Some suppliers are better at handling emergencies, product recalls, and answering inquiries. The third is innovativeness. Some suppliers create better information systems, introduce bar coding and mixed pallets, and in other ways help the customer.

#### **1.6.2** Architect

An architect is a person who involves in the planning, designing and oversight of a building's construction. In other words, architect is a professional who is qualified to design and provide advice – functional, aesthetic and technical – on built objects in our public and private landscapes. More generally, an architect is the designer of a scheme or plan (Oostra, 2001)



#### 1.6.3 Specifications

The Malaysian Uniform Building By-Laws states that all plans for building submitted to the local authority for approval shall be accompanied by a specification of all materials proposed to be used. This includes general specification for metal roofing and it is important for architect to identify the quality of metal roofing in order to serve a specific purpose of a development. There are many competing materials to choose from and there are a variety of forces driving the decision-making process. Advertising and sales programs, installation and technical issues, and cost/benefit expectations influence homeowners, architects, and builders. The choice is complicated and many people including professionals in the supply chain are involved in the buying decision process. Eventually, the interaction between architects, builders, and homeowners leads to a final specification (Damery et al., 2001).

#### 1.7 Organization of Study

Chapter 1 presents an overview of the research and its significance. This chapter also presents objective of the research and scope of the study. Chapter 2 presents previous studies on the relationship between the dependent variable of architect specification and the independent variables of service delivery differentiation. Chapter 3 includes the theoretical framework, research hypotheses, and type of study, nature of study, unit of analysis, instrument, and population of sample, data collection and data analysis methods. Chapter 4 discussed on the respondents profile and the research findings. Chapter 5 present discussions, limitations of research and suggestion for future research.



#### **CHAPTER 2**

#### LITERATURE REVIEW

#### 2.1 Introduction

Literature review plays a crucial role in the formulation of research projects. It is a process of identifying and bonding with previously published research topics and as a source of ideas, both substantive and methodological. This chapter look into and discuss more thoroughly on the various research conducted relating to the subject matter.

Since very little research has been done into service delivery in the building material industry, consumer decision-making model by Asseal (1995) and theory by Kotler (2003) is chosen in order to support the framework.

#### 2.2 Service Delivery Differentiation

A service or product company can differentiate itself by designing a better and faster delivery system. According to Kotler (2003), there are three levels of differentiation. The first is reliability. Some suppliers are more reliable in their on-time delivery, order completeness, and order-cycle time. The second is resilience. Some suppliers are better at handling emergencies, product recalls, and answering inquiries. The third is innovativeness. Some suppliers create better information systems, introduce bar coding and mixed pallets, and in other ways help the customer.

Many distribution experts say that company's money would be better spent on improving delivery performance than on advertising. They say that superior service performance is a more effective differentiator than image expenditures.



Furthermore, it is harder for competitors to duplicate a superior distribution system than to copy a competitor's advertising campaign (Kotler, 2003). Sherden (1988) proposes that companies, which achieve a high level of service quality, gain an edge over their competition, in three ways. The first is through value-added differentiation; because service quality is valuable to customer, it can be a basis for differentiating a product or service.

Several authors suggest competitive equality has been reached with many manufactured goods. Technological superiority is increasingly more difficult to maintain as a lasting strategy (Gronroos, 1990; Lele, 1986), and maintaining low prices is equally challenging as a differentiating strategy (Zeithaml and Bitner, 1996). Therefore, one potential competitive strategy is the development of a service strategy (Bowen et al., 1989; Roscitt and Parquet, 1990; Vandermerwe and Rada, 1988). Service is becoming a smart strategy, because it provides a strong competitive advantage (Davidow and Uttal, 1989; Frambach et al., 1997) through differentiation opportunities (Anderson and Narus, 1995; Kyi and Kyi, 1989; Mathur, 1998), even within the commodities market (Robinson et al, 1998). Furthermore, a service strategy can help in building industry barrier to entry (Donaldson, 1986; Mathe and Shapiro, 1993; Vandermerwe and Rada, 1988). At this point, Mathur's (1988) recommendation to be wary of general prescriptions urging all firms to change generic strategy in the same direction is insightful. The author reminds us that competitive advantage can be gained not only by more differentiation, either in the product or in its support, but also by less. Consequently, service as a competitive advantage needs to be approached with less simplemindedness. For instance, Simon (1992) considers that services that directly enhance the value of the tangible product and support its application are more effective as competitive weapons than services of a more general nature.



According to Samli et al. (1992), as markets mature only more proactive service strategies may maintain a competitive position. Consequently, it is no longer enough for manufacturing firms just to offer some generic kind of service in order to ensure a competitive advantage. Some services, considered as basic by the clients, must be offered by all manufacturing companies entering a business (Levitt, 1981; Wagner, 1989). Such services are simply entry barriers and cannot provide a competitive edge. Moreover, the differentiating power of more value-added services may be altered over time. Clients are used to getting such services, the competition copies them and these services end up by losing their differentiating power. When the physical product cannot easily be differentiated, the key to competitive success may lie in adding valued services and improving their guality. (Kotler, 2003) A strategy built on service differentiation includes products and services that have been embellished with a unique service feature, which competitors do not provide. Service delivery differentiation can also exist when every aspect of the product/service provisioning process focuses entirely on delighting the customer, from the first interaction with the customer who is enquiring about a product, to the ongoing maintenance of the product or delivery of services. This service differentiation strategy can be a powerful competitive advantage for the many products and services that are quickly duplicated by competitors, relegating the product or service to "commodity" status (Sanes, 1996). Identifying those opportunities where providing differentiated services will result in achieving a competitive advantage requires not only skill but also some element of trial and error. All attempts to differentiate have to revolve around customer requirements. Although proponents of quality management understand this theory, the precise formula for "differentiation" continues to elude the business world. Research indicates that the more a service is differentiated, the more loyal customers are to that brand and less willing they are to



switch to a competitor. This customer loyalty prevails even when a competitor offers a similar product for a lower price, or when the preferred company raises its price (Fisher, 1990).

There was little literature available in regards of service delivery differentiation that discuss on the three levels of differentiation (reliability, resilience and innovativeness) which is used in measurement of the independent variable in this study. Thus the theory adapted from the text book by Kotler (2003) was used in exploring the dimensions.

#### 2.3 Architect

"Architect" means any person who is registered as an architect under any law relating to the registration of architect and who under that law is allowed to practice or carry on business as an architect. (Uniform Building By-Laws, 1984)

For present purposes an architect is defined as someone operating alone or on behalf of a group of individuals, usually a firm of architects, who designs a plan for a building and looks after its realization (Oostra, 2001). Architects usually play an active role as designers in the building process. Although not responsible for all design tasks, architects make the final decisions concerning the appearance of new building. They can therefore take up a position as client or as co-designer (and occasionally as co-developer); depending on how much they rely on the aesthetic abilities of the manufacturer (Oostra, 2001)

In Maloney (2002), research on Construction product or service and customer Satisfactory, It explained the contractor's bid is based upon the pricing of items identified during a detailed quantity takeoff conducted after an analysis of the plans and specifications prepared by the designer. In this context the designer is referred to an architect.



#### REFERENCES

- Ackerberg, D. 2003. Advertising, Learning, and Consumer Choice in Experience Good Markets: *Advances In Economics*, Volume 1, Amsterdam: North Holland.
- Anderson, J. C. and Narus, J.A. 1995. Capturing the Value of Supplementary Services. *Harvard Business Review*. Vol 73. January – February. pp.75-83
- Anderson, J. C. and Narus, J.A. 1995. Capturing the Value of Supplementary Services. *Harvard Business Review*. Vol 73. January – February. pp 75-83.
- Anand, B., and R. Shachar. 2002. Risk Aversion and Apparently Persuasive Advertising. *Harvard Business School Working Paper Series*. No. 02-099.
- Asseal, H. 1995. *Consumer Behavior and Marketing Action*. Cincinnati: Southwestern College Publishing.
- Berry, W. L., Hill, T. J., Klompmaker, E. J. 1995. Customer-Driven Manufacturing. *International Journal of Operations & Production Management*. Vol. 15. No. 3. pp. 4-15.
- Berry, L. L. and Parasuraman, A. 1991. Marketing Services, Competing Through Quality. *The Free Press*. New York.
- Bitner, M. J. 1997. Service Marketing Perspective on Service Excellence. *Journal of Retailing*. Vol. 73, No.1. pp. 3-6.
- Bowen, D. E., Siehl, C. and Schneider, B. 1989. A Framework for Analyzing Customer Service Orientation in Manufacturing. *Academy Of Management Review*. Vol. 4. No.1. pp. 75-95.
- Boyd, H. W., Jr., Orville C. Walker, Jr, Larreche, J. C. 1998. *Marketing Management*. A Strategic Approach with A Global Orientation. Third Edition.
- Burger, P. C and Cann, C. W. 1995. Post-Purchase Strategy. A Key to Successful Industrial Marketing and Customer Satisfaction. *Industrial Marketing Management*. Vol. 24. pp 91-8.
- Cespedes, F. V. 1994. Industrial Marketing Management. New Requirements. *Sloan Management Review*. Vol. 35. No. 3. pp. 45-60.
- Cohen, M. A. and Lee, H. L. 1990. Out Of Touch With Customer Needs. Spare Parts and After Sales Service. *Sloan Management Review*. Vol. 31. Winter. pp 55-66.
- Cunningham, M. T. and Roberts, D. A. 1974. The Role of Customer Service in Industrial Marketing. *European Journal of Marketing*. Vol. 8. No. 1. pp 15-28.



- Damery, D. T., Fisette, P. 2001. Decision Making in the Purchase of Siding. A Survey of Architects, Contractors, and Homeowners in the U.S. Northeast. *Forest Product Journal*. Vol. 51, No. 7/8. pp 29-36.
- Davidow, W. H., and Uttal, B. 1989. Coming the Customer Service Decade. Across the Board. Vol. 26. No. 11. pp. 33-7.
- Daviddoff, D. M. 1994. *Contact : Consumer Service in the Hospitality and Tourism Industry*, Prentice, N.J.
- Donaldson, B. 1986. Customer Service: The Missing Dimension in Marketing Management. *Journal of Marketing Management*. Vol. 2. pp. 133-44.
- Erdem, T. and Keane, M. P. 1996. Decision-Making Under Uncertainty: Capturing Dynamic Brand Choice Processes In Turbulent Consumer Goods Markets," *Marketing Science*, 15, 1-20.
- Erdem, T., Imai, S., and Keane, M. P .2003. Brand and Quantity Choice Dynamics under Price Uncertainty, *Quantitative Marketing and Economics*, 1, 5-64.
- Erdem, T., Keane, M. P., Öncü. T. S., and Strebel, J. 2005. Learning About Computers: An Analysis of Information Search and Technology Choice, *Quantitative Marketing And Economics*, Forthcoming.
- Engel, J. F., Blackwell, R. and Miniard, P.W . 1995. *Consumer Behavior*. Ft. Worth, Tx: Dryden Press.
- Evans, J. and Laskin, R. 1994. The Relationship Marketing Process: A Conceptualization and Application. *Industrial Marketing Management*. Vol. 23. pp 439-53.
- Gummesson, E. 2003. *Total Relationship Marketing:* Marketing management, relationship strategy and CRM approaches for the network economy. Second Edition. Butterworth Heinemann Publications.
- Fisher. A. B. 1990. What Consumer Wants In 1990s. *Fortune*. January 29. pp. 108.
- Frambach, R. T., Wels-Lips, I. and Gundlach, A. 1997. Proactive Product Strategies : An Application in European Health Market. *Industrial Marketing Management*. Vol. 26. pp. 341-52.
- Gronroos, C. 1990. *Service Management and Marketing*. Managing the Moments of Truth in Service Competition, Free Press/Lexington Books, Lexington, MA.
- Hawes, K. 1994. To know me is to trust me. *Industrial Marketing Management*. Vol. 23. pp 215-19.
- Hendel, I., and A. Nevo. 2002. Measuring the Implications of Sales and Consumer Stock Pilling Behavior, *Working Paper*, Berkeley.



- Hoyer, W. D and Macinnis, D. J. 2001. *Consumer Behavior*, Second Edition, Houghton Mifflin. Research, June – July. pp. 15-18.
- Johnson, M. D., Hermann, A. and Huber, F. 1998. Growth through Product-Sharing Services. *Journal of Service Research*. Vol. 1. No. 2. pp. 167-77.
- King, Charles W. and John O. Summers. 1970. Overlap of opinion leadership across consumer product categories. *Journal of Marketing Research* 7: 43-50.
- Kotler, et. al. 1996. Principle of Marketing. Prentice Hall. pp 289
- Kother, P., Ang, S. H., Leong, S. M., Tan, C. T. 1996. *Marketing Management*: An Asian Perspective. Prentice Hall.
- Kotler, P. 2003. *Marketing Management*. Eleven Edition. Prentice Hall. International Edition.
- Katz, Elihu and Paul F. Lazarsfeld. 1955. Personal Influence. New York: Free Press
- Kyj, L. S. and Kyi, M. J. 1989. Customer Service: Product Differentiation in International Markets. *International Journal of Physical Distribution and Material Management*. Vol. 1. No.1. pp. 19-26.
- Lawrence, F., Feick, Linda, L., Price, and Hihie, R. 1998. People Who Use People: The Opposite of Opinion Leadership, in Ed. Richard J. Lutz, Advances in Consumer Research, Vol. 13 (Provo, Utah: Association for Consumer Research). pp. 301-305.
- Lanicioni, D. 1995. The Reporting Relationship of Customer Service. Industrial Marketing Management. Vol. 24. pp 19-26.
- Lamb, C. W., Hair, J. F., & McDaniel, C. 1992. *Principles of Marketing*. Cincinnati. South – Western.
- Lele, M. M. 1986. How Service Needs Influence Product Strategy. Sloan Management Review. Vol. 27. Fall. pp. 63-70.
- Levitt, T. 1972. Production-Line Approach to Service. *Harvard Business Review*. Vol. 50. No. 4. pp.41-52
- Levitt, T. 1981. Marketing Intangible Products and Product Intangibles. *Harvard Business Review*. May-June. pp. 94-102.
- Levine, D. M., Stephen, D., Krehbiel, T. C., Berenson, M. L. 2005. *Statistic for Managers using Microsoft® Excel.* 4<sup>th</sup> Edition. Pearson Prentice Hall. pp. 335.
- Lovelock, C. H. 1996. Service Marketing. Prentice-Hall. Englewood Cliffs. NJ.
- Mehta, N., S. Rajiv and K. Srinivasan. 2003. Price Uncertainty and Consumer Search: A Structural Model of Consideration Set Formation, *Marketing Science*, 22(1), pp.58-84.



- Mathe, H., and Shapiro, R. D. 1993. *Service and Strategic Direction*. Ceressec. Cergy. France. February. Dr93008.
- Mathieu, V. 1997. Delivery Process for Service Associated to Product: Strategies and Consequences. International European Operations Management Association Conference, Barcelona.
- Mathieu, V, 2001. Service Strategies within the Manufacturing Sector: Benefits, Costs and Partnership. *International Journal of Service Industry Management*. Vol. 12. No. 5. pp. 451-475.
- Mathur, S. S. 1998. How Firms Compete: A New Classification of Generic Strategies. Journal of General Management. Vol. 14. No.1. pp. 30-57
- Maloney. W. F. 2002. Construction Product / Service and Customer Satisfaction. *Journal of Construction Engineering and Management*. November/December. pp. 522-529.
- Melkko, K. 2000. Marketing Strategies in High Technology and Low Technology Industry: Analysis of Differences and Reasons for them. Seminar in Business Strategy and International Business.
- Mcmurrian, R. C. And Wilson, E. J. 1996. A Trade-off Analysis of Value-Added Customer Service Dimensions in Supplier Choice. Working Paper. *ISBM Report 2.* Institute for the Study Of Business Markets. The Pennsylvania State University. University Park.
- Mittal, B., Lee, M. S. 1989. A caused model of consumer involvement, *Journal of Economic Psychology*, No. 10, pp.363-89.
- Morwitz, V. G., Fitzsimons, G. J. 2004. The Mere-Measurement Effect: Why Does Measuring Intentions Change Actual Behavior? *Journal of Consumer Psychology*. 14 (1&2). pp. 64-74.
- Myers, J. H. And Robertson, T. S. 1991. Survey: If you must know, just ask one of these men, *Marketing News*, August 19.. pp.13
- Normann, R. 1984. Service Management. Wiley. New York.
- Oostra, M. 2001. *Product Development and Design Research: Research into Architects as Component Designers.* Faculty of Architecture. Delft University of Technology. pp 81-89.

Pertubuhan Akitek Malaysia (PAM) - Sabah Chapter. 2005.30 Years Journey.

- Perreault, W. D. and Russ, F. A. 1976. Physical Distribution Service in Industrial Purchase Decisions. *Journal of Marketing*. Vol. 40. April. pp 3-10.
- Reichheld, F. F. 1993. Loyalty-based management. *Harvard Business Review,* Vol. 71 No. March-April, pp.64-73.



- Rogers, Everett, M. 1997. A History of Communication Study. *New York: Free Press* Robinson, T., Clarke-Hill, C. and Clarkson, R. 1998. The Role of Services as Differentiation Strategy: A Study of the Commodity Chemical Sector. *Proceedings of the fifth international research seminar in a service management*. IAE. Aix-En-Province.
- Roscitt, R. and Parquet, R. I. 1990. Strategic Service Management. Journal of Business and Industrial Marketing. Vol. 5. No. 1. pp. 27-40
- Rothschild, M. L. 1984. Perspectives in Involvement: Current Problems and Future Directions, in Kinnear, T. (Eds), *Advances in Consumer Research*, pp.216-17
- Rust, R. T., Zahorik, A. and Keiningham, T. L. 1996. *Service Marketing*. Harper Collins. New York. NY.
- Stross, J. K., Bole, G. G. 1980. Evaluation of a Continuing Education Program in Rheumatoid Arthritis. *Arthritis Rheum*. 23: pp. 846-849
- Solomon. M and Stuart. E. W. *Marketing Real People Real Choice*. Third Edition. Prentice Hall, 2003
- Sanes, C. 1996. Employee Impact on Service Delivery. *Management Development Review.* Volume 9. Number 2 1996. pp 15-20.
- Samli, A., Jacobs. C. and Wills, J. 1992. What Presale and Post-sale Computers and Related Products. *Industrial Marketing Management*. Vol. 15. pp. 23-32.
- Samli, A. C. and Wills, J. 1986. Strategies for Marketing Computers and Related Products. *Industrial Marketing Management*. Vol. 15. pp 23-32
- Sekaran, U. 2003. *Research Methods for Business: A Skill Building Approach* (4<sup>th</sup> Edition). U.S. America, Wiley.
- Simon, H. 1992. Service Policies of German Manufacturers: Critical Factors in International Competition. *European Management Journal*. Vo. 10. No. 4. pp. 404-11.
- Sherden, W.A. 1988. Gaining the Service Quality Advantage. *The Journal of Business Strategy*, (March/April), pp. 45-48.
- Uniform Building By-Laws 1984. G.N. 5178/85. As at 10<sup>th</sup> April, 1999. International Law Book Services.
- Vandermerwe, S. and Rada, J. 1988. Servitilization of Business: Adding Value by Adding Services. *European Management Journal*. Vol. 6. No. 4. pp. 314-24.
- Vandermerwe, S. 1994. Service Network Structure for Customer Oriented Strategies. in Kossteki, M. (Ed). Marketing Strategies for Services: Globalization, Clients-Orientation, Deregulation. *Pergamon Press*. Oxford. pp 41-63.



- Rogers, Everett, M. 1997. A History of Communication Study. *New York: Free Press* Robinson, T., Clarke-Hill, C. and Clarkson, R. 1998. The Role of Services as Differentiation Strategy: A Study of the Commodity Chemical Sector. *Proceedings of the fifth international research seminar in a service management.* IAE. Aix-En-Province.
- Roscitt, R. and Parquet, R. I. 1990. Strategic Service Management. Journal of Business and Industrial Marketing. Vol. 5. No. 1. pp. 27-40
- Rothschild, M. L. 1984. Perspectives in Involvement: Current Problems and Future Directions, in Kinnear, T. (Eds), *Advances in Consumer Research*, pp.216-17
- Rust, R. T., Zahorik, A. and Keiningham, T. L. 1996. *Service Marketing*. Harper Collins. New York. NY.
- Stross, J. K., Bole, G. G. 1980. Evaluation of a Continuing Education Program in Rheumatoid Arthritis. *Arthritis Rheum*. 23: pp. 846-849
- Solomon. M and Stuart. E. W. *Marketing Real People Real Choice*. Third Edition. Prentice Hall, 2003
- Sanes, C. 1996. Employee Impact on Service Delivery. *Management Development Review*. Volume 9. Number 2 1996. pp 15-20.
- Samli, A., Jacobs. C. and Wills, J. 1992. What Presale and Post-sale Computers and Related Products. *Industrial Marketing Management*. Vol. 15. pp. 23-32.
- Samli, A. C. and Wills, J. 1986. Strategies for Marketing Computers and Related Products. *Industrial Marketing Management*. Vol. 15. pp 23-32
- Sekaran, U. 2003. *Research Methods for Business: A Skill Building Approach* (4<sup>th</sup> Edition). U.S. America, Wiley.
- Simon, H. 1992. Service Policies of German Manufacturers: Critical Factors in International Competition. *European Management Journal*. Vo. 10. No. 4. pp. 404-11.
- Sherden, W.A. 1988. Gaining the Service Quality Advantage. *The Journal of Business Strategy*, (March/April), pp. 45-48.
- Uniform Building By-Laws 1984. G.N. 5178/85. As at 10<sup>th</sup> April, 1999. International Law Book Services.
- Vandermerwe, S. and Rada, J. 1988. Servitilization of Business: Adding Value by Adding Services. *European Management Journal*. Vol. 6. No. 4. pp. 314-24.
- Vandermerwe, S. 1994. Service Network Structure for Customer Oriented Strategies. in Kossteki, M. (Ed). Marketing Strategies for Services: Globalization, Clients-Orientation, Deregulation. *Pergamon Press*. Oxford. pp 41-63.



- Wagner, W. B. and Lagrace, R. 1981. Customer Service as a Marketing Strategy. Industrial Marketing Management. Vol. 10. pp 7-16.
- Weinrauch, J. D., & Natarajan, R. 1992. A Quest for Quality in Small Business: Challenges, Prescriptions, and Research Opportunities. *Journal of Business & Entrepreneurship*, 4(2), pp. 77-88.
- Wagner, W. B. 1989. Customer Service in Industrial Marketing: Hedge against Competition. *European Journal of Marketing*. Vol. 27. No. 7. pp.7-16.
- Zeithaml. V. A. 1991. *How Consumer Evaluation Processes Differ Between Goods and Service, in Service Marketing.* Christopher H. Lovelock, Ed. Englewood Cliffs, NJ: Prentice Hal. pp.39

Zeithaml, V. A. and Bitner, M. J. 1996. Service Marketing . McGraw-Hill. Maidenhead.

